AN EVALUATION OF STOCK MARKET RESPONSE FOR LEVERAGED FIRMS

Setting a Guideline for Firms about Capital Structure and Investment Decisions in various industries of a Developing Economy

By

Shehla Akhtar

NATIONAL UNIVERSITY OF MODERN LANGUAGES

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Shehla Akhtar

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The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Advanced Integrated Studies & Research for acceptance:

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Candidate of Doctor of Philosophy at the National University of Modern Languages do hereby declare that the dissertation **AN EVALUATION OF STOCK MARKET RESPONSE FOR LEVERAGED FIRMS-Setting a Guideline for Firms about Capital Structure and Investment Decisions in various industries of a Developing Economy** submitted by me in partial fulfillment of Ph.D. degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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Shehla Akhtar
Name of Candidate

DEDICATION

To my beloved parents;

To whom I owe my whole life.

With millions of thanks and gratitude

With great love……

ABSTRACT

The traditional theories like MM theory in finance believe that the proportion of debt in the capital structure of the firms may not improve the shareholders' wealth as the firm's value remains the same due to certain costs of debt keeping other variables constant. Hence, the benefits of leverage may not be realized to the desired extent. Whereas, the tradeoff theory states that the suboptimal level of debt in the company increases the cost of debt than its benefit. *The situation may create an adverse impact on shareholders' value.* This study aims to examine the association and influence of financial leverage on stock market response with the control effect of firm size, firm growth, industry, cash flows and corporate earnings in all non-financial sector firms listed at Pakistan Stock Exchange. The stock market response is measured by employing two important factors of the stock market reaction and stock market returns. The research provides a deep insight of investors' perceptions, their expectation, and fears while making an investment decision in leveraged companies compared and contrasted with the company management's financing decisions and the ground realities happening at Pakistan Stock Market. The effect of demographic traits of financial and investment decision makers is also measured. At the same time, research contrasts the human perceptions about the influence of leverage on stock market response determined by market reaction and returns, with the historical happenings in reality over the period of time. The study overcomes the gap in the literature by adding a different dimension to view and compare the human perceptions of decision making with the results of the fact sheet and set guidelines for the managers and investors for their

relevant decision making in the given unique set of variables adding industry and cash effect.

The primary data sample consists of 82 company finance managers and 284 investors making investments at the Pakistan Stock Exchange. While the secondary data is collected from the non-financial sector companies listed at Pakistan Stock Exchange for the period of 2003-15. The primary data is collected by using two questionnaires developed with the help of literature concepts and modified by incorporating the opinions of various researchers and the field experts. One of the instruments is designed for the data collection from the company managers who make financial decisions. While the other questionnaire is designed to gather the responses from the equity investors who make investment decisions in the leveraged companies. A secondary data consisting of 436 companies of the non-financial sector is based on 13 years starting from 2003 to 2015.

To analyze the primary data, statistical package for social science (SPSS) latest version is used. The reliability and validity of the instrument are checked by the way of pilot testing initially. The exploratory factor analysis proved to be helpful to determine the adequacy of sample data. A multiple linear regression approach concludes the statistical results of the primary data. A hierarchal regression is applied to the primary data to find out the impact of each control variable step by step and its contribution to determine the stock market response. In addition, the stepwise regression is also applied to the respective data to measure the most influencing control variable on the stock market response. In such kind of regression, the software predicted the ranking of influence. Furthermore, the

secondary data analysis is conducted by applying a panel data approach followed by a pooled regression with the help of software, e-views.

The statistical findings of the primary data collected from the company managers involved in financial decision making illustrate that the leverage makes a significant positive impact on the stock market response measured by the dimensions of stock market reaction and the stock market returns. The firm size, corporate earning, and the industry dummy proved to be the determinants of stock market reaction in the opinion of companies' finance managers. The findings are statistically significant by applying the linear regression and Hierarchal regression approaches. It reveals the intentions of the company managers who put a higher degree of importance to the above-stated control variables in their financial decision-making process. The hierarchal regression shows that managers of the companies are missing some of the important elements like cash flows and company earnings for which the equity investors seem to be highly concerned as per the results of the study. The stepwise regression analysis predicts that the industry nature and firm growth has got a reasonable influence on the stock market returns as per the managers' opinion. The firm growth makes the most significant and considerable influence among the other control variables. The demographics except age do not create a significant difference in the pattern of thinking for financing decision makers.

In the view of equity investors, the primary data results provide that the leverage determines the reaction of the stock market and they consider the role of a firm's cash flows important for the levered companies. In the view of investors, the companies who possess an adequate amount of cash flows and earnings may capture the maximum investors' attention for investment. On the other hand, the nature ofthe industry also plays an

important role to trigger the investors' decisions for making the investment in levered companies stock. The equity investors least consider the firm size and growth while deciding for their investments. Some of the demographics characteristics may make a significant difference in the patterns of decision making by equity investors like their age, qualification and the profession. While others do not come into play when they make their investment decisions. According to the statistical results of the study, it seems that such demographic factors like gender and experience do not make any unconscious influence on the psychology of the investors while deciding about investments. Maybe these are the market dynamics, trends, behavior and movements which influence the investors but their personal attributes make no effect on their psychology while making investment decisions.

The secondary data statistical results conclude a significantly positive partial influence of leverage on the overall stock market response which is the combination of stock market reaction and stock market returns. Among the other explanatory variables, the firm size (FS), firm growth (FG), corporate earnings (CE), Cash flows (CF), the food & personal care products (D_{15}) and chemical industry (D_{21}) proved to be the significant determinants of the stock market response. Finally, the research findings demonstrate a significant positive influence of financial leverage on stock market response with control effect of the cash flows, corporate earnings, industry effect, firm size and growth. Apart from the effect of leverage on the overall stock market response, some mixed and conflicting findings exist with the addition of control variables in the study model regarding the managers' process of financial decision making, investors' decision formulation for investments in leveraged firms and the fact sheet historical data. The research reveals that

the investors need to consider the firm growth as an important factor along with others as the fact sheet historical data proves for effective investment decisions. On the other hand, the managers require to put attention on the firm's Cash flows and the industry nature with the firm earnings ratio to make some effective financial decisions.

The research will be useful for companies to decide about their financial structure while accommodating the points of the consideration provided by investors. The findings of the study will help potential investors to consider the stock market reaction in Pakistan before making an investment in levered companies' stock. A useful framework is offered to understand financing and resulting firm value. However, there are gaps in the knowledge of how leverage influences the value by market measure with the given set of variables. This aspect is still not being analyzed by the research scholars for earlier empirical studies. Based on capital structure theories and prospect theory of behavioral finance, this study also overcomes a vital empirical and theoretical gap in Pakistan regarding investors' psychology of investment by examining the associations among leverage and stock market reaction with control variables like firm size, firm growth, industry, cash flows, and corporate earnings.

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First of all, I am thankful to Almighty Allah, Who has given me the strength and determination to carry out this research study. I would like to express my sincere gratitude to my supervisor Dr. Syed Amir Shah who provided me regular guidance at every stage of this study and particularly for his patience to provide me support whenever I required. I am also thankful for the valuable comments of Dr. Arshad Hassan, Dr. Faid Gul and Dr. Zubair Mumtaz to improve the research instrument for this study.

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In the end, credit goes to all the people who gave their remarks, added valuable ideas, and helped me to polish this research study.

Shehla Akhtar

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LIST OF ABBREVIATIONS

LEV……....Financial Leverage

CF……..Cash flows of the firm

ID……...Industry (nature of the industry)

CE……..Corporate Earnings

FS……...Firm Size

FG……..Firm Growth

SMRC……Stock Market Reaction

SMRN……Stock Market Returns

M/B……....Market to Book Ratio

MV…….Market value

BV……..Book Value

D/E…….Debt to Equity ratio

DTC……...Debt to Total Capitalization

RR…….Rate of Return

EPS……Earning per share

MPS……...Market price per share

CAPM……...Capital Asset Pricing model

EY…… Earning yield

NPV……..Net Present Value

MVA……Market value added

EVA…….Economic Value added

EBIT……..Earnings before interest and tax

KSE……...Karachi Stock Exchange

PSX……...Pakistan Stock Exchange

NCC……...National Clearing Company

MSCI…….Morgan Stanley Capital International

FST……FTSE 100 Index

BSESN……..S&P BSE Sensex Index

NCM…….NASDAQ Composite Index

MACD….....Moving Average Convergence Divergence

RSI……Relative Strength Index

NYSE……New York Stock Exchange

CHAPTER 1

INTRODUCTION

The firm's financing serves as a fuel to run a business entity in a successful manner. Various organizations use their available funds differently to meet their goals. The capital structure states the proportion of funds raised by the firm through internal and external financing. Therefore, a company's capital structure consists of the equity financing contributed by the shareholders known as real owners of the company and the debt or hybrid financing funded by the external financers. Whereas, the firm's leverage refers to the proportion of debt to the equity of the company in the firm's capital structure in the field of finance.

Various researchers[1] have highlighted the different determinants of the capital structure while others have suggested different conclusions for the investigation of the leverage relationship with other variables. The issue is still debatable whether leverage affects the value of the firm or the value of the firm leads to the select the optimal capital structure. In the context of firm's leverage, the literature argues that bankruptcy turns to be an organic part of a longer process and serves as a possible outcome of financial distress (see Gordon, 1971; Scherrer, 1988). Furthermore, the debt financing may increase the

[1] see Shah & Khan, 2007; Frank & Goyal, 2009; Muradoglu and Sivapradad, 2008; Ozdagli, 2009; Adami, Gough, Muradoglu, Sivaparasad, 2010; Penlin, 2009; Hasanzadeh, Torabynia, Esgandari and Kordbacheh, 2013; and Mumtaz, Rauf, Ahmed & Noreen, 2013.

fixed costs of a company in the form of interest which may increase the chances the bankruptcy in case of financial distress which refers to a situation when a company cannot pay or finds it difficult to meet its debts to its external financers. Whitaker (1999) and Purnanandam (2005) describe that problems with the capital structure and liquidity adequacy are frequently explained by low levels of cash flow that are insufficient to cover maturing liabilities and by low interest coverage ratios. If a state of financial distressed persists, the indirect costs of financial distress appear to be the increased costs of capital. In turn, the banks usually increase interest rates. Hence, the high levels of debt financing expose the firm to the risk of default to meet its obligations out of its operating cash flows particularly if the firm should experience an adverse period of trading. Therefore, it can be inferred that the leveraged companies are at a greater risk. In addition, when investors formulate their investment strategies, it is important for them to consider the risk of the company as well as that of the industry in which they are investing. The investment made in highly levered companies may put the investor returns in danger. The leveraged companies with low growth potential, low cash flows, and similar earnings may be highly vulnerable for investment and the same situation may happen in the case of several industries if they are highly levered.

Hence, this study aims to find out the significance of relationship and influence of leverage on stock market response and also considers the impact of the firm cash flows and earnings; its size and growth. The industry effects are also determined by the study in various industries of Pakistan. This study may guide the firms towards better capital

structure decisions with the estimation of the expected stock market reaction inthe future while considering their size, growth, free cash flow and the nature of the industry. Although the finance managers of the companies make their capital structure decisions keeping in view the various factors yet the investors' value is primarily important. However, the companies basically focus and intend to serve their basic objective of maximizing the shareholders' wealth (Brigham et al., 2004). Hence, the study provides empirical testing of prior concept through the use of leverage and determines the factors of consideration for finance managers while making such an important decision. *It's not only useful for the companies running in various industries to predict the future expected financing to be raised but will also serve as a guideline for investors to make their investments based on their present and future expectations about leveraged companies.* The investors may put their investments in various stocks of trusted companies with high firm values so that they may reduce their risk.

Basically, the investors are the main players who drag the financial market up and down. Their decision making about the investment may influence the movement ofthe stock market. When the investors are provided a better environment to invest in, the trading activity in the market may be enhanced and ultimately new potential investors may be attracted either local or foreign. Although the external factors are an important reason to push the market up and down, yet these are the investors' perceptions and behavior are playing an inevitable role in their decision making. The prospect theory of Behavioral finance also infers that the investors in the stock market are risk-averse. They are reluctant

to take high risks by making an investment in risky stocks. The fluctuations in the market may drive their investment decisions back. Moreover, Abul (2019) affirms the significant role of psychological behavior of investors on their decision making patterns. The author observed the effects of psychological factors on individual investor decisions at Kuwait Stock Exchange. The findings proved that herd behavior, optimism and psychology risk have an impact on the individual investors' decisions.

Ergonomics (1993) provides that the investor's investment decision is determined by the dimensions of thoroughness, control, hesitancy, social resistance, optimizing, principled, and distinctiveness. Ahmad (2017) conducted a study on the factors that influence an investor's behavior in the stock market of Pakistan. The author discovered that expected corporate earnings, dividends paid, stock marketability, condition of financial statements, expected dividends, current economic indicators, past performance of the firm stock, broker recommendations, firm status in the industry and urge to become rich quickly are the most influencing factors in order. The least influencing factors are religious reasons, political party affiliation, environmental record, perceived ethics of the firm and family member opinions. *One factor that is broker recommendation is unexpectedly highly influenced Pakistani investors behavior in making their investment decision.* On the other hand, Al-Tamimi (2006) conducted a study on investors' behavior of decision making and found that the most influencing factors on investors' behavior in order of importance proved to be the expected corporate earnings, get rich quick, stock marketability, past performance of the firm's stock, government holdings and the creation

of the organized financial markets. While the five least influencing factors on the UAE investor behavior in the order of importance proved to be the expected losses in other local investments, minimizing risk, expected losses in international financial markets, family member opinions, gut feeling on the economy. Such behavior of investors may influence the overall trading and performance of the stock market. It's all about their trust and security provided to them. Hence, this study may serve as the possible guideline for the investors to invest their money in the stock market based on the companies leverage. The study is intended to measure the stock market returns and reaction along with the firm value with leverage or no leverage in the presence of some other factors like cash flows, growth, firm size and nature of industry. .

1.1. Stock Market Dynamics in Pakistan

Pakistan stock exchange is considered as the emerging financial market in the developing world and its performance proved to be efficient when compared with the global markets. In year 2002-03, the Pakistan stock exchange (PSX) earlier termed as KSE, the Karachi Stock Exchange before mutualization served as the country's largest stock market with most liquidity and was acknowledged as the best performer among the stock markets of the world by several business journals, magazines and reporting agencies including Business Week, Gulf News etc. afterward, the Karachi stock market was listed as number fifth among the best performing stock markets of the world in 2013 and kept on moving ahead in 2014 as the trend is represented by figure 1. It left behind Morgan Stanley's (MSCI) emerging market index. The figure demonstrates that the Pakistan stock

market performance is a far ahead of others including frontier, world and emerging markets.

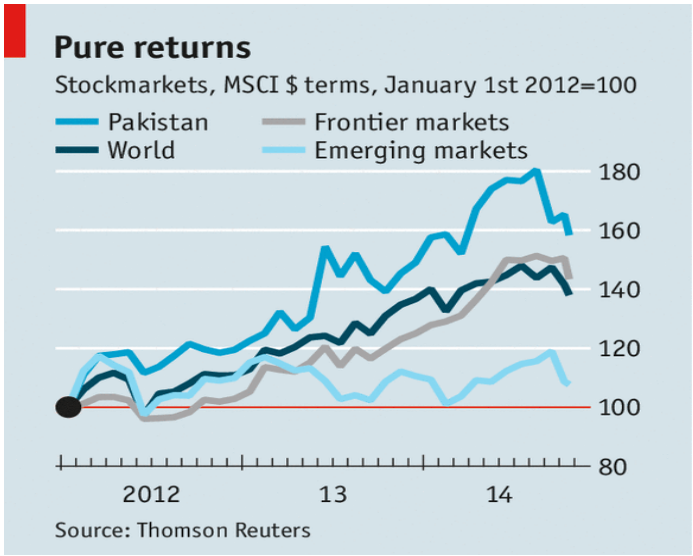


Figure 1: A comparison of Pakistan Stock Market with World, Frontier and emerging markets

Pakistan stock exchange crossed milestones with the passage of time and showed great potential for the investors to earn desired returns. The stock market successfully met the investors' expectations of growth and exhibit a great potential to fulfill their required rate of return. The emerging markets are considered as the full potential to energize the investors and find the gaps to earn comparatively high margins. The MSCI index[2] returns are presented in figure 2. The particular focus is the returns during the period of

[2] MSCI refers to Morgan Stanley Capital International which is a Global financer of equity, fixed income, hedge fund stock market indexes, and multi-asset portfolio analysis tools

mutualization of stock exchanges in Pakistan from 2015 to 2017 that rise at peak till mid 2017 due to positive expectations of growth in the market index.

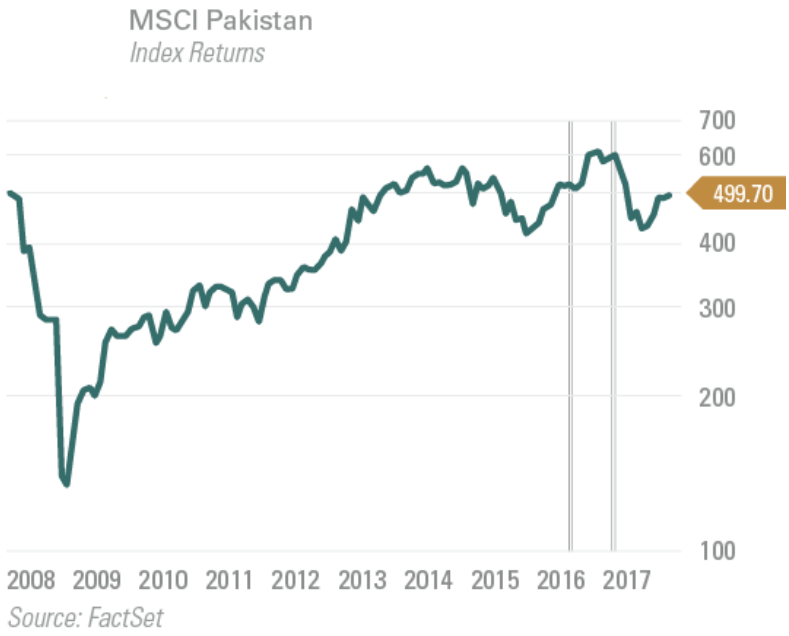


Figure 2: MSCI Pakistan index returns

Figure 3 illustrates the price movement at Pakistan stock exchange until 2013 that stands a far higher than FST[3], NCM[4], BSESN[5]. It demonstrates an increasing trend far above other indices.

[3]FST represents FTSE 100 Index (Index of 100 companies listed on London Stock Exchange)
[4] NCM denotes NASDAQ Composite Index (market capitalization-weighted index of over 3,300 common equities listed on the NASDAQ stock exchange)
[5] BSESN stand for S&P BSE Sensex Index (includes 30 top performing companies of Bombay Stock Exchange)

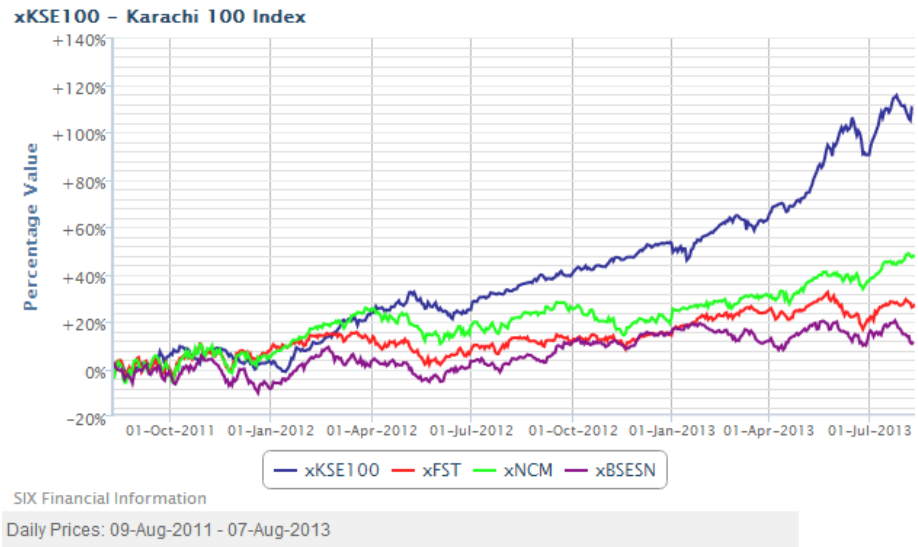


Figure 3: A comparison of KSE 100 index with FST, NCM, and BSESN

Karachi Stock Market has also gone through downturns in its performing history. In March 2005, a major downfall occurred in the market when the KSE 100 index crashed after touching its peak in the month of February. At that time the Karachi Stock Market index served as the base index for the country. Another disastrous crash took place in 2008 when fifty percent of the market value was lost followed by the financial crises occurred in the year 2007.

The series of ups and down in the performance of Karachi Stock Exchange is the result of various exogenous factors like the economic condition of the country, the law & order situation and unstable political condition prevailing in the country. The world financial crisis is also responsible for the fluctuations and crises in the market. But such factors may not describe the extraordinary instability in the market index. High volumes of

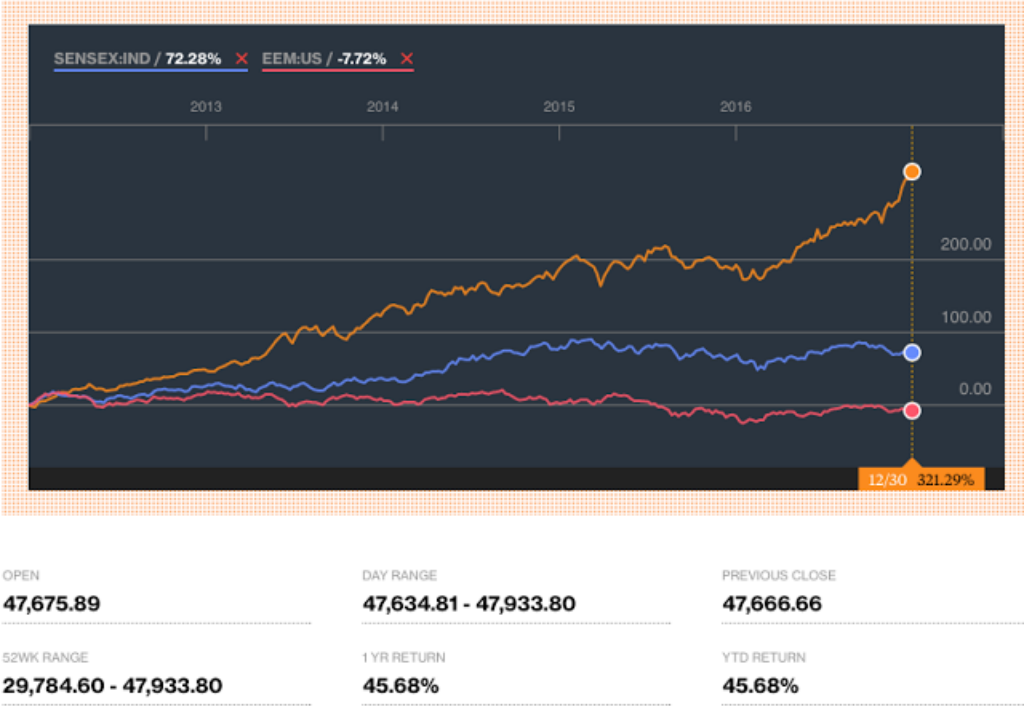
trading were reported at one instance while at another point of time, the index was frozen at KSE as the 2008 crises happened. After the crises of 2007 and subsequent year 2008, the index again regained the performance better than other emerging markets and some of the developed markets. In the later years, 2012-13 Karachi Stock Exchange 100 Index regained its good performance to stand as the world's best performing financial market but the fluctuations remained in the index. Figure 4 indicates the performance of KSE 100 index which is proved to be better than MACD[6] and RSI[7].

Figure 4: A comparison of KSE 100 index with MACD and RSI

[6] MACD stands for "Moving Average Convergence Divergence" which is a trading indicator used in technical analysis of stock prices, created by Gerald Appel in the late 1970s. It is designed to estimate the variation in the strength, direction, momentum, and duration of a trend in a stock's price.

[7] RSI refers to the Relative Strength Index that helps to plot a graph of current and historical strength or weakness of a stock or market based on the closing prices of a recent trading period.

During the journey of performance, the KSE 100 index of Pakistan stood the best performing stock market index of the world at the close ofthe year 2016 (over one-year and five-year periods) as illustrated by Bloomberg. The index has not only beaten India's Sensex index but also the Emerging Markets index of Morgan Stanley (MSCI). In 2016, Pakistan's KSE 100 index has flown up to 46 percent while leaving India's Sensex's increase of 2.57 percent and 8.42 percent rise of emerging market MSCI, a far behind. In addition, a huge growth of 321 percent has been observed over 5 year period as compared with the Sensex index of India with 72 percent increase and Morgan Stanley decline by 7.72 percent. All the discussed scenario is clearly depicted by figure 5 given below;



Source: Bloomberg

Figure 5: India's Sensex index and Emerging Markets index of Morgan Stanley (MSCI) over the period of 2013-16

In 1994, Pakistan was declared as an Emerging Market while in December 2008, the market was downgraded to the frontier status. The loss in investors' confidence resulted in a bearish market trend and vanished the market capitalization of approximately 37 billion dollars at Karachi Stock Exchange. A pressure of a floor on market share prices happened that led to the approximate total decline of the market activity for the period of above three months as per the Bloomberg reporting. Later on, the business newspaper of UK, Financial Times reported that Pakistan has improved security for foreign direct investment and has commenced several major energy and infrastructure projects under CPEC (China Pakistan Economic Corridor) agreement.

Figure 6: Historical Trend of KSE 100 Index from 2005 to 2013

In May 2017, MSCI Pakistan Index was reclassified as Emerging Markets status in Review of Semi Annual Index with effect from June 01, 2017, following an MSCI press release on June 14, 2016. Pakistan's Karachi Stock Exchange KSE100 Index has gathered 14% in 2016, making the market as the best performing market in Asia in year 2016, anticipating of announcement of MSCI. The security provided to the investors for making their investment at the market and MSCI decision has created optimism among the investors. The investors' hesitation to put investments at KSE had reduced as they felt protected and secured. An expectation of growth in nation's GDP and the investments by foreign mutual fund managers also spur the confidence of local investors. Figure 7 demonstrates the statement on decision included pro forma list for the components of provisional MSCI Pakistan indices.

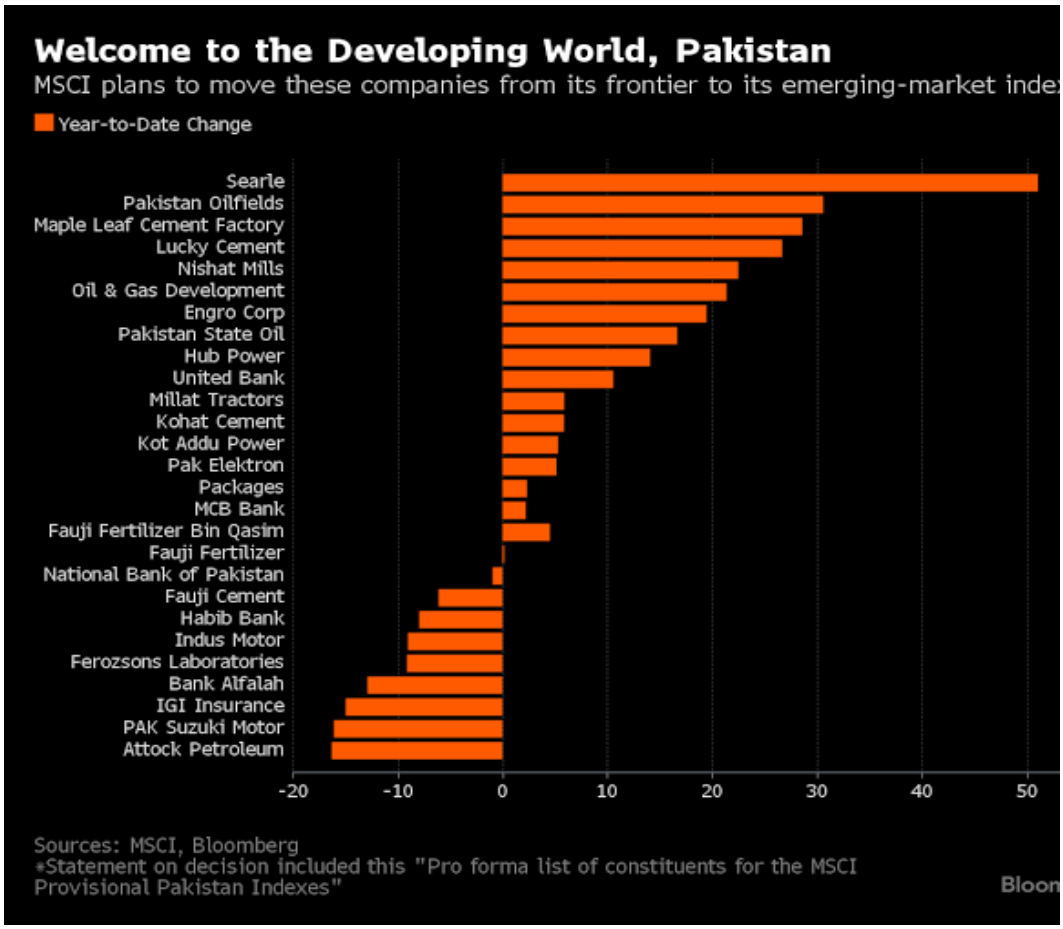


Figure 7: Pro-forma list of provisional MSCI Pakistan indices' components
Source: Bloomberg

Hence, the journey of Pakistani Stock Market starting from Karachi stock exchange to the Pakistan stock Exchange went through a series of ups and down with some remarkable achievements over the period of time. Finally, the market blocks of Karachi, Lahore and Islamabad stock exchanges merged by demutualization in 2017 with an aim to enhance the market performance.

1.2. Research Questions

The emerging research questions for the study consideration are;

- Does the leverage benefit the investors with respect to the stock market response in Pakistan as assumed by traditional capital structure theories?
- Whether the leveraged firms are maximizing the long term shareholders' value?
- How do investors evaluate the investments in the levered stocks of the firms in the Stock Market of Pakistan?
- Does the stock market respond to the managers' decisions of capital structure?

1.3. Problem Statement

The traditional Capital Structure MM theory (1958) in finance believe that the debt employment may not be helpful to increase the shareholders' wealth as the value of firm remains the same due to certain costs of debt in the absence of taxes, keeping other variables constant. The benefits of leverage may not reveal to the extent they are expected. Whereas, the tradeoff theory states that;

Suboptimal level of debt in the company increases the cost of debt than its benefit. The situation may create an adverse impact on shareholders' value.

Brealey and Myers (2003) state that the crux of the static trade-off theory is that a firm maximizing its value will consider the trade-off between the tax shield provided by leverage and the cost of financial distress. On the other side, the research also traces the

investors' perception which is linked with behavioral finance. As the Prospect theory of behavioral finance by Kahneman & Tversky (1979) states that the investors value the gains and losses differently as generally, the investors are risk-averse. While the Market efficiency theory (Fama & French, 1988, 1989, & 1992) in traditional finance assumes that every information in the market reflects in the share prices keeping other factors constant. Hence, the following inference may also be drawn;

The investors' perception of risky investments in leveraged companies may result in a negative stock market reaction reflected in market prices. The theoretical concept needs to be tested empirically along with the investors' opinions on how do they believe while investing in a levered firm. It highlights the shareholders' perception of investment decisions in levered companies. While on the other hand, it's important to know about the company side or the managers' perception while levering a company for the sake of enhanced values for their shareholders. The perception of managers behind their financing decisions also needs to be evaluated.

1.4. Significance of the Study

The study has significance for the current and potential investors making investment decisions and for the corporate managers of the non-financial companies operating in various industrial sectors of Pakistan. It will help out the companies to know about the leverage effect for increasing the value of the firm for investors as it proves a significant positive impact of leverage on Stock Market Reaction & Returns. The study

will provide evidence for the developing countries like Pakistan if the leverage is providing long term value for shareholders by using the optimal level of debt in the capital structure.

Similarly, the research is also helpful for the companies' managers who make financing decisions by taking into consideration the investors point of view. Apart from the fact sheet data and historical figures, as what do the real owners or investors think in reality and how do they behave when they invest funds in leveraged companies. It may set a bottom line or base to predict the future market reaction towards the leveraged company's stock and its value. Existing theories like trade-off theory state that the risk of the firm increases as long as it employs a higher debt and so the required rate of return for shareholders of the company. The suboptimal level of debt may increase the costs of the companies. In such situations, if the firm provides an expected value to its investors by maintaining an optimal level of their confidence and reduce the fears of bankruptcy, investors may stay with the stable leveraged companies with higher firm values as the future prospects for growth of their investments look bright. The potential investors may also not fear to invest in such type of leveraged companies as they are expected to get higher values of their investment. At the same time, the study also set a guideline for investors to decide about their investments in the stocks of leveraged companies and corporate sector may decide about the debt to equity ratio in financing decisions. They may build up their expectations for the rate of return based on the current value of leveraged firms.

Moreover, the study implies market-oriented indicators that create a link between the market and book performance measures to determine the Stock Market Reaction of the investor & their attitude towards investment in the stock of leveraged companies keeping in view risk and Returns. The investors may construct diversified portfolios based on the value of a leveraged firm, risk and their yields or rate of return. This not only serves as a guideline for investors for current and future investments but also for firms' financing decisions. The firms may decide about their financing mix by keeping in mind the influence of leverage on Stock Market Response but may also evaluate the effect of such decision considering the size, cash flows, earnings, and growth of the industry. Firms may use this research as a guideline to forecast their future for raising finance based on their investor's confidence. The research indicates a solid base of making decisions for the companies as well as for the potential investors who are the upcoming stakeholders and will possess certain concerns in the company.

Several literature approaches as discussed above are intended on the analysis of various firm-specific variables and study the impact of leverage on firm performance and value without consideration of control variables. Whereas the current study not only investigates the impact of financial leverage on market variables like Stock Market Reaction but at the same time, it estimates the impact of some control variables like firm size (the market capitalization), cash flows, nature of the industry, earnings and growth of the companies.

1.5. The novelty of the Study

There are several studies conducted on the historical data from fact sheets regarding the relationship & impact of financial leverage on the book and market value (see e.g. Shah & Khan, 2007; Frank & Goyal, 2009; Muradoglu and Sivapradad, 2008; Ozdagli, 2009; Adami, Gough, Muradoglu, Sivaparasad, 2010; Penlin, 2009; Hasanzadeh, Torabynia, Esgandari and Kordbacheh, 2013; and Mumtaz, Rauf, Ahmed & Noreen, 2013). The investors' perception towards investment in leveraged companies in literature has not been measured adequately in Pakistan and other emerging markets. This study attempts to fill such a gap and intends to empirically examine the investors' response towards the investment in levered companies in the stock market of Pakistan. It is helpful not only to identify the stock market reaction and returns based on investors' psychological considerations in Pakistani market but the results of the study may be generalized upon the regional economies. It will provide a guideline for the investors about the stock market response towards investment in leveraged companies in Pakistan.

Previous studies as mentioned above observed the value of the firm by employing Tobin's Q most of the times. But it puts a limitation in the security market of Pakistan where the bonds are not traded. Hence, such traditional measure to the firm's value cannot be applied to the economy of Pakistan. The research will evaluate the stock market reaction by creating a link between the market and book measures of performance and the investors' returns from the stock market and their attitude towards making an investment in leveraged firms' stock. The research is not restricted to determine the firm

standing based only on the market or book values in isolation by using the company specific indicators but also compares the book and market-oriented performance indicators to measure the market response.

Several literature approaches as discussed above are intended on the analysis of various firm-specific variables and study the impact of leverage on firm performance and value without consideration of control variables. Whereas the current study not only investigates the impact of financial leverage on market-oriented indicators and variables like Stock Market Response inclusive of stock market reaction and returns but at the same time, it estimates the impact of some control variables like firm size (the market capitalization), cash flows, nature of industry, earnings and growth of the companies. Although the effect of leverage on firm value with the firm size is found in the literature review, yet the control effect of other control variables of the study like the firm cash flows, corporate earnings and industry is not adequately estimated. While the firm growth is also not indulged in the model under discussion. This study provides a comprehensive mix of additional control variables with the independent variable and a distinctive dependent in a different combination beyond literature. Furthermore, the study intends to establish the cross-sector impact of leverage so that the firms may decide about their optimal financing structure based on the structure and nature of a particular industry.

Moreover, the study also tests the effect of certain demographics of investors who make investment decisions. It will be helpful to determine whether the maturity with age, the enhancement in qualification and the regular profession of the

decision makers affect the patterns of their decision making or not? Such dimension will add a new contribution to the existing literature. The stock market returns are identified by earning yields and the historical rates of return. Hence, the study will be beneficial for the corporate sector to consider the impact of debt financing on the stock market response. On the other hand, the study is also beneficial from the investors' perceptive. The firms may decide about their financing mix by keeping in mind the influence of leverage on Stock Market Response but may also evaluate the effect of such decision considering the size, Cash flows, earnings and growth of the industry.

1.6. Research Objectives

The research objectives design the destination for the researcher and evolve out of the research questions as mentioned before. This study aims at achieving the objectives stated below;

- To investigate the stock market response as per the investment decision makers' and financial decision makers' perception compared with fact sheet results against corporate leverage decisions.
- To analyze the impact of leverage on stock market returns for investors.
- To provide a guideline to the investors for making their investment decisions.
- To set some milestones for the Finance Managers in formalizing their financing decisions.

1.7. Delimitations of the Study

In the field of finance, there are several difficulties while gathering data from joint stock companies and corporations. The publically available data is most of the times not sufficient to set a solid base for research. There is very basic and raw data in the form of annual reports available. There are very few professional and paid databases available with limited resource and data for researchers.

Another problem that is very important to be highlighted is that in the case of finance, the company professionals are reluctant to share their data even if it is not confidential. Even people are hesitant to share some general opinions about financial decisions and the general financial policies even if not the company specific. The company professionals are busy in their own work routines and they don't want to come out of that to spare a little time for the research. There are various reasons for the explanation of such an attitude. First of all, the local financial markets lack the culture of research. There is a very limited understanding of fruitful studies that may help to raise their performance. Although the research is carried out by the companies in the areas of marketing and product development, some management and human resource practices unfortunately, the trend is widely missing in the area of finance and financial decisions. The companies are using traditional ways of making decisions just by following benchmarks or their own perceptions where behavioral biases may influence their judgments. Unfortunately, the country is also facing the dilemma of hiding the facts made in records. The companies are

also afraid of disclosing even non-confidential information as they want to hide the real facts prevailing in the organizations.

One good explanation for not sharing their opinions in survey forms is that the management of the companies perceive that the research activity is useless for them. They are unable to realize the importance of such studies for their fruitful future and long term growth. Such perception prevails as there is lack of awareness about the importance and role of research in the life of companies and financial markets. Even the regulators and major financial institutions were found to be reluctant and bound by legislation for encouraging the research culture. They are not open to welcome research by providing cooperation to the universities. The local markets lack the understanding of how research can make their decision making better and flourish their performance. Most of the time the company personnel refused as they had the mindset of feeling themselves busy and they found that their opinion sharing is just the waste of their time. They couldn't come out of their daily work routines and put their part for something beneficial for their long term. Although this is not a matter of their busy schedules, only the mindset or personality frame that is predesigned and not open to the positive changes in the environment. Such an attitude or the behavioral aspect may be altered by creating awareness among the management and company personnel to embrace sparkling changes.

The lack of industry-academia linkage for the purpose of research seems to be another plausible reason for the lack of companies' cooperation. The collaborations among the companies, financial institutions, and the universities or research institutions

need to be build up. It may not only speed up the research activity but will improve the performance of the players by creativity and various brainstorming sessions. It may be helpful to find out the gaps and new ideas for research. The implication of the theoretical ideas might be seen in the daily processing and financial decision making of the firms. Diversified brains, expertise, widespread knowledge database and the blend of all may improve the functioning of firms, institutions and the financial markets. Similarly, the research-friendly rules and legislation may be designed to help out the universities for conducting research. Even the research conducted or promoted by the regulatory bodies and financial institutions may be useful for the firms for their decision making.

Furthermore, the gap between what the respondents think and what they actually do their decisions in the company is a hurdle to infer exactly expected results. Sometimes the person who is filling the questionnaire may have a different viewpoint but is forced to follow the majority's decision in the company. One may unconsciously reveal the personal biases in the information shared in the questionnaire. Although the primary data has its own worth in research yet the financial decisions in reality demand more than responding to a questionnaire. In reality, the individuals may be forced to make irrational financial decisions but they may either ignore or overcome the irrational assumptions while reporting their opinions. They may give the ideal responses in the forms. Likewise, several questions are based on financial theories and the investors' responses may be casual rather than providing some rational reasoning. To avoid such situation, the survey was conducted in the working hours of companies from the management and responses were sought from

the investors during the trading hours of the stock market so that they may respond with their active decision making criteria.

The language barrier is another limitation as Urdu local languages of the country are understandable by most of countrymen. But the official language is English. The chunk of investors having some educational background are able to understand the English language which is also the language of the survey questionnaire while the others may not. The respondents were verbally guided with each question in the local language they use to speak but still, it was very difficult to translate some financial terms exactly the same as their concept appear. Despite the fact that the survey form was designed in a simple language still the people knowing English were unable to understand as some of the finance terminologies was no justifiable in simple English. This communication barrier affected the reliability of some variables in the pilot testing but later on, the communication gap was overcome by verbal guidance to the investors filling the questionnaires and reliability was greatly improved.

Another limitation to gather the investors' responses was that a massive percentage of investors have shifted towards online trading through their personalized logins on the web. The investors are using online contacts with their brokerage houses.Very few investors were found present physically in the market. Mostly the institutional investors are found in the financial markets. It was very difficult to find out their contacts as the brokerage houses are bound by SECP and legislation to disclose or leak out any information about their clients. Even the brokerage firms are not only bound to secure the

information of their clients but also restricted to provoke any terms with their clients other than their professional relation of trading. They are legally prohibited to facilitate any researcher for getting some information from their clients using their profiles with brokerage firms.

The study takes into account mixed responses of individual plus institutional investors. As the individual investors are large in number, maximum responses are gathered from them. But it may create a bias within the sampling quota when it comes to the fact that most of the individual investors use the services of brokerage houses for making their investments and their decisions are influenced by the advice given by brokerage houses.

The national Clearing Company identifies the investors' population approximately of 200,000 investors as per the unique identification number specified for each investor. The sample size of investors is although reasonable based on the historical researches and other limitations mentioned above but as per the figure provided by NCC, the number of registered investors appear to be very large. But the stock exchange professionals provided that not all the registered investors are active and regular traders. A very small number of registered investors trade actively and regularly. There are investors who use o hold more than one registered ID, so, the effective proportion of investors is less than 200,000 in reality.

The study is limited to the only local investors who put their investments in the stock portfolios. As the Pakistani financial markets are not that much developed or mature for the other trading financial instruments. There is a very limited bond market but futures and options are traded at the exchange. In the secondary market, the bonds were restricted in the 1980's as per the sharia law act. The financial derivatives and other financial instruments are not widely traded but they are just at the beginning stage.

The study is restricted the local individual investors and some financial institutions like brokerage firms. The Pakistan Stock market index is greatly affected by the news about foreign investments upcoming to the country. The foreign investments actively participate in raising the local market index. Vigorous trading by the foreign investorsboosts the market performance. Indirectly they are helpful to raise the confidence of local investors to participate.

1.8. Organization of the Study

The research thesis is categorized into the following sections;

Chapter 1: It introduces the area of research, the theories followed by the study and the brief history of the Pakistan Stock Market as the study is intended to measure the stock market returns and reaction including the firm value. The chapter also explains the significance of the study following the research questions and the problem statement. Various limitations during the course of the research, their reasoning and the strategies used to overcome them.

Chapter 2: The second chapter of the study consists of a literature review. The review illustrates the opinions of various authors and the results of their studies carried out regarding the financial leverage, firm value in the financial market. The review of literature also considers the overview of control variables affecting the study including cash flows, growth, firm size and the nature of the industry. This section aims at setting the base for developing the model of the study. The literature also takes into account the viewpoints of several authors regarding relationship and impact independent variable financial leverage with the stock market reaction in the presence of other above-mentioned variables affecting the framework. At the end, the chapter summarizes the viewpoints of authors, the gaps in the studies and the area of current study which is to be empirically tested by using the 13 years historical secondary data plus the data collected by survey forms filled by the managers about financial decisions and the investors providing their investment decision making preferences.

Chapter 3 of the thesis report deal with the methodology used to carry out the research. The chapter consists of population, sample size and sampling technique used for the study. It provides details about the types of data collection and research instrument formulation for the survey conducted and its process. The section also explains the details of analysis tools used to test the study hypotheses.

Chapter 4 provides the statistical results obtained from the primary data collected. The assumptions for the analysis tools applied are also detailed in the part. The

validity and reliability of the research instrument used for the collection of primary data are also given. The findings, out of primary are demonstrated in the chapter.

Chapter 5 provides a complete and detailed analysis of the findings generated from the secondary data of the study. The historical patterns of the data collected are tested and interpreted in the chapter.

Chapter 6 compares and contrasts the primary and secondary data results and the differences lying therein. The perceptions of the equity investors while making their investment decisions and of managers in making their financing decisions are discussed in a comparison with secondary data or fact sheet results over a period of time. This section also reconciles the findings with the results and findings of other authors whether the study findings affirm or show a disagreement with literature. The results of the study are also discussed with the reference of the theories followed by the research. The research findings and their implications in the practical life of financial markets, companies and investors are also provided in detail. Moreover, the chapter suggests the grounds for future research by creating various linkages between corporate finance and market finance areas. The guidelines and recommendations are also given based on the limitations faced in this study. The research is also concluded in the section.

The reference list for the material or literature used in this study is presented at the end of chapters. The primary data collection instruments are given in the appendix. Appendix 1 consists of the questionnaire filled by the managers to get their opinions about

the financial decisions prevailing in their respective companies. Appendix II consists of the survey form floated among the investors of Pakistan Stock Exchange to collect their responses about the investment decisions they use to make. The questionnaire may be improved by the future researchers to enhance the reliability and validity. The Appendix III consists of some supporting documents.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction to Leverage

The firm leverage is termed as the ratio calculated by measuring the proportion of a firm's total liabilities to its total assets. It is regarded as a substitute for the residual claim of owners at the time of liquidation. On the other hand, it fails to provide a sufficient measure of calculating the company's risk of default in the (Rajan and Zingales, 1995). Financial leverage is defined as the degree to which the company relies on the debt (Hillier et al, 2010). The debt ratio (D/A ratio) identifies the total debt amount raised as against the amount of the total assets invested in the business. This ratio differs from debt-equity ratio because it includes the amount of debt related to the summation of total equity and total debt (Pandya, 2004).

Badi and Minoei's (2015) debt to equity ratio shows rise in fund's quantity relevant to equity capital. Generally, a high debt-equity ratio reveals high financial leverage representing a high financial risk. Interest cover ratio observes the ability to meet the contractual debt duty related to the sufficiency of operational income to meet the interest expense. It is measured by categorizing operational income and interest charge into separate divisions. Greater the interest cover, higher is a company's capability to pay its debt obligations.

In addition, Mule (2015) observes that in financing firm structure, equity proportion to debt is shown by leverage. According to Mule (2015), leverage indicates the level of debt usage as compared to equity in a firm's financing structure. Eckert and Engelhard (1997) assert that a complete illustration of leverage shows the relation between equity and debt. In addition, Pandya (2016) asserts that financial leverage is regarded as the sensitivity of the firm's earnings per share to alterations in its operational income resulting in the change of its capital structure. The appropriate blend of debt, common equity or other hybrid securities is known as the capital structure of the company. Financial leverage also refers to the amount of debt financing utilized by the firm for enhancing its earnings per share. Therefore, it measures the rate of financial risk a firm has to bear on the basis of its usage of debt funds. A great extent of substitutability among various kinds of debt is overlooked by the capital structure, limited to shares and bonds. So, a comprehensive definition of financial structure refers to the summation of equity and all liabilities together (Schwartz, 1959). Furthermore, the author states that gross risk is better estimated by the ratio of liabilities to net worth.

Furthermore, the leverage ratios reveal the extent to which a company uses debt and its ability for meeting debt obligations. Leverage refers to that part of a company's fixed cost which represents the company's risk value. Similarly, financial leverage, measuring financial risk, relates to long-term financing having fixed financial charges of a firm's assets. Greater the financial leverage, higher the financial risk and the cost of capital.

Harris and Raviv (1991) observe that various leverage measures can produce different results affecting their interpretations.

In the context of leverage, a trade-off is present between risk and returns of a company stemming from its selection of debt-equity mixture. With increase in debt level, magnification of earnings per share enhances while simultaneously the default probabilities to meet the fixed debt also enhances. This phenomenon is regarded as *Trade-off Model* (Myers, 1984, 2001) where the ideal situation for a company is to possess an optimal capital structure in which a company can maximize its value and decrease the capital cost along with the relevant debt costs.

2.2.Major Sources of Financing

In a broad sense, there are two kinds of companies on the basis of the capital structure on the basis ofthe above discussion. One is called *unlevered firm*, that generates capital only by the means of internal resource i-e retained earnings and the common stock including equity whereas levered firms utilize a mixture of equity/retained earnings and debt where debt may assume different forms (including bank borrowings, bonds and the debentures with marketability and the term finance certificates).

The key sources of financing used by the firm in its Capital Structure are given as follows;

2.21. Debt Financing

Debt holders hold a claim on the firm's cash flows related to shareholders who are only entitled to a residual cash flow after the payment is made to debt holders. It means that fixed debt holders claim causes residual claim of stockholders to become less certain enhancing the cost of stock (Brigham and Houston, 2004).

Debt financing has two key benefits including the tax-deductible interest rate which decreases debt's effective cost and a fixed return for debt holders so stockholders may not share their profits in case of successful business. It also decreases the chances of poor managerial decision making by serving as a monitoring device.

However, debt also has certain demerits such as greater the debt-equity ratio, the riskier the firm and greater the debt and equity cost and the decline of the firm during the hard times when operating income is not sufficient to cover interest rates. In this case, stockholders are responsible for making up the downfall and if they fail, bankruptcy is the ultimate result. Excessive debt may keep the firm from gaining any advantage; thus, wiping out the stockholders (Pandey, 2005). The third demerit includes financial distress. When the company enhances its leverage, the probability of financial distress enhances; thus, increasing the present value of financial distress cost as a result.

2.22. Equity Financing

Academics state that the information asymmetry persuades the firms' managers to keep a better place in order to predict free cash flow for the firm instead of its investors.

This equity issue is regarded as a negative signal by investors often leading to decline in stock price (Brigham & Ehrhardt, 2007).

Lambert and Larcker (1986) assert that top managers of companies prefer to finance their firms through equity in case the number of shareholders is larger with less power of shareholding. During this situation, shareholders' regrouping is difficult to control and pressurize their management. As a result, shareholders prefer to sell their shares instead of incurring costs of agency to resolve the issue. In the firms where number of shareholders is less and shareholdings are larger, they prefer to regroup themselves for putting a control and pressurizing the management to run the company.

Dolmat-Connel (2002) analyzes the increase in company's profitability where managers are provided with firm's shares. This incentive is useful for creating a motivation among managers of the firm to work for shareholders' interest because they too possess the company's shares. Therefore, the link between management and ownership structure can resolve the principal-agent issue.

2.23. Hybrid Securities

Hybrids refer to a group of securities having the attributes of both the interest-bearing security and the share. Generally, the hybrid issuer pays the investor a familiar regular return (called interest) and the investor then receives shares at maturity (called equity). For instance, hybrids include convertible notes and convertible preference shares. When the company's common stock price increases above its conversion rate, convertible security's market price rises to the level closer to its conversion value. When it happens,

several convertible holders do not convert due to the fact that they already possess market rate benefit obtained from conversion and receive a definite periodic interest pay. Owing to this attitude, every convertible security possesses a call feature virtually enabling the issuer to encourage or persuade conversion process. The security's call rate is set above the par value of the financial asset to an amount that equates its yearly interest. Another way of financing a call is through the usage of debt or stock; however, it may leave the company's capital structure no less levered than prior to the call (Gitman, 2006).

Based on the different sources of financing, various theories of capital structure and their implications for the companies have been derived by researchers overtime. Such theories are presented in the following discussion.

2.3. Capital Structure Theories

In different eras, several concepts and theories are provided by the theorists about leverage and the financing structure of the companies. Some of those deal with the value of the companies in the perfect markets while others talk about the tax shield. There are others who suggest the timings for the issuance of equity or debt and trade off within different options available for financing.

A brief overview of basic capital structure theories is given as follows;

2.31. The Modigliani & Miller (MM Theory)

Modigliani and Miller (1958) established that the value of the levered firm becomes equal to the value of an unlevered firm when there are no taxes. Moreover, they state the positive gains by using leverage due to tax shield effect. Hence, as the debt of firm increases, positive gains from market stock prices are predictable (Modigliani and Miller, 1977). Jensen and Meckling (1976), Kim (1982), Ross (1985) and Leland (1994) argue that an increasing debt to equity ratio leads to ever rising costs related to leverage such that the value of firm will eventually stop increasing.

Modigliani and Miller (1958) explain that the firm value is independent of capital structure. As the debt increases the risk of stocks, the return on equity is considered as the increasing function of leverage as the shareholders, real risk bearers will demand for greater return for increased risk. While Rotnano et al. (2000) suggests that there exists a target or optimal debt-equity ratio for a company which alters the benefits and costs over time.

Apart from the theories given by Modigliani and Miller (1958) affirming the leverage irrelevance in the presence of perfect capital markets, there are many other theories endorsing several empirical and theoretical research studies for choosing capital structure in imperfect capital markets. Recently, there are many research studies which observe a conservative policy of financial leverage for the companies operational in the United States

Because Modigliani and Miller (1958) asserted that the financial leverage is irrelevant to the real value of the companies if the capital markets demonstrate a market perfection while some other theoretical and empirical researches investigate the optimal structure of financing with capital market imperfection. In recent years, several research articles have analyzed conservative leverage policy in the US companies. The primary advantage of debt is the tax benefit of interest deductibility (Modigliani and Miller, 1963). The key costs are related to financial distress and the taxes to be paid by the bondholders occur if they obtain income in the form of interest (Miller, 1977).

Modigliani and Miller (1958 and 1963) explain this conclusion by finding a trivial relation between financial leverage and the company's value till the companies operate in a taxable environment in which the tax payouts impact upon the capital structure. Weston (1989) comments on MM's proposition by stating that no change in the value of market is reported with the condition of a perfect market equilibrium as it supports no variation in market value via its decisions of financing. As a result, it leads to the linear raise in the required rate of return in equity with its financial leverage.

2.32. Trade-Off Theory

Trade-off theory suggests that capital structure refers to the determined merits of debt and its cost. Tax-bankruptcy trade-off theory studies the companies against deadweight cost of bankruptcy. The agency managers help to reduce its issues of free cash flow. Trade-off theory allows the existence of bankruptcy cost by stating that there is a benefit to debt financing (known as tax advantage of debt) and there is a financing cost

(known as bankruptcy cost of debt). The advantages of debt include tax deductibility of interest payment. The tax deductibility of corporate interest payment favors debt usage. The marginal advantage of increase in debt reduces as the debt increases whereas the marginal cost increases so a company which is optimizing its total value focuses on the trade-off theory while selecting the amount of debt and equity to be used in financing.

In case there is a need of residual financing, the firms use external capital in the given order; first safe debt is used, then risky debt and in the end equity issues. In contrast to trade-off theory, pecking order theory reveals no long run target capital structure. No optimal debt-equity mix exists as there are two types of equity including retained earnings at the top of pecking order and the issue of new shares at the bottom (Myers, 1984).

Trade-off theory points to another challenge for market timing theory. This theory suggests that capital structure originates as a collective result of past efforts for timing the equity market (Baker & Wurgler, 2002). Static trade-off theory stresses on the advantages and costs of debt issuance. It suggests that optimal target financial debt ratio exists which enhances the company's value. This optimal point can be obtained if the marginal value of the advantages related to debt issuance offset the increase in current value of costs related to debt issuance (Myers, 2001).

Generally, a firm's capital structure comprises of mix percentage of debt or equity. Capital structure is essential as it impacts upon the return of investors by assessing the company's ability to deal with its competitive surroundings effectively. Myers (1984) & Myers and Majluf (1984) illustrate that the price that investors are likely to pay causes new shares to remain underpriced in the market. If companies fund for novel investments by

the issuance of equity, underpricing may be extreme that the upcoming investors have to take on more NPV[8] of new project leading to a decline in current shareholders. In this scenario, the project is rejected even if its NPV is positive as managers always favor current shareholders. The problem of underinvestment is overcome by engaging a new project with the fairly valued security that is not undervalued.

Welch (2003) analyzed the inference of trade-off theory by illustrating that shocks to share market impact upon capital structure; however, since the companies do not readjust target leverage leading the debt and equity level to remain non-influential for the future leverage adjustments. In Kenya, Balako (2007) examined that disclosures of all kinds of information is affected by corporate governance attributes, ownership structures and corporate characteristics such as leverage for financial disclosure. Bitok et al., (2011) state that static trade-off theory reveals that optimal capital structure exists and trade-off between net tax advantage of debt financing and bankruptcy cost gives the most suitable explanation of leverage for Kenyan listed companies. Chebii et al., (2011) assert that there exists a considerable relation between capital structure and dividend payouts in firms which optimally engage financial leverage in their operations. These firms stand a chance of favorable competitive environment owing to the lack of financial inhibitions.

2.33. Pecking Order Theory

Myers and Majluf (1984) formulated pecking order theory relating to a company's capital structure and its financing decisions. It stresses on the sequence of the companies'

[8] NPV refers to Net Present Value

priority for their financing source in the capital structure ranging from retained earnings and internal funds to the external debt source of shareholders' equity. It also suggests as per the law of least effort made or the hindrance created during the preference of raising common equity as a financing option. Therefore, the type of debt which a company opts for may turn into a signal of its requirement for external finance. Myers (1984) examines that the information asymmetry and the cost of transaction trigger and overpower the forces that determine the choice of leverage in the stated trade-off models. For minimizing the financing cost, companies choose to fund their projects by using internal cash flow.

Since pecking order theory originated with the studies conducted by Myers (1984), it analyzes three sources including funds, debt and equity. Equity holds grave adverse selection while retained earnings avoid this issue. From this point of view, equity is always riskier than the borrowing. Therefore, rational investors possess a security issue. In case of lowest quality company, its look is always undervalued conditioned on equity issuance. Retained earnings are considered to be a better fund source as compared to outside usage. When retained earnings are insufficient, they are used only as a last resort. It is also called leverage ratio theory. Since pecking order theory is informational, it can be produced from tax and agency.

The pecking order theory reveals that due to asymmetric information, external financing cost is greater than internal financing cost while the related costs are a key factor influencing the financing choices. It is documented that the financial conservatism is not a phenomenon which is an industry-specific although conservative companies of the sectors, are considered to be sensitive to financial distress. Lucas and McDonald (1990) examine a

diverse adverse selection pecking order along with market timing concept resulting in underperformance. Low-leverage companies possess higher market-to-book ratio, adopt pecking order style financial policy and stockpile financial slack to be used for a reduction in internal funding and for financing acquisitions and capital expenditure. It is argued that financial conservatism is a temporary arrangement of financing contrary with Lemmon et al. (2008) who assert that companies hold stable leverage ratio with time.

Pecking order theory is analyzed from the point of view of asymmetric information and the presence of transaction cost. Asymmetric information cost arises if a company selects not to utilize external financing by passing up a positive Net Present Value investment. Equity is a less preferred source for raising capital because if managers owing to be a company's insiders (know better about the real situation of a company as compared to investors) issue new equity, investors assume that managers consider that a company is overvalued and the company managers are benefited from such over-valuation of the company. Top managers issue securities where the market value of a financial asset is greater as compared to real company value. The deviation between the security value in the market and real company occurs, because investors, possessing lesser information about a company's value assets may misprice equity (Myers and Majluf, 1984).

Competitive investors are aware that companies possess the incentive of issuing new shares if market overvalues the current shares. Hence, investors try to adjust the price they want to pay causing new shares to be underpriced in the marke. Frank and Goyal (2003) reveal that pecking order theory performs worse during 1990s. Huang and Ritter's (2007) recent analysis of pecking order theory shows a reduction in equity risk managers'

clashes by exacerbating shareholder to debt holder ratios whereas product and factor market interaction reveal that stakeholders make considerable firm-specific investments. These investments are insecure generating few capital structures which either increase or impede.

2.34. Market Timing Theory

Market timing is a relatively primitive concept (Myers, 1984) in the academic literature. In the surveys which offer some support to this concept, consistent studies reveal equity issuance related to a stock price run-up. In contrast, corporate financing incidents show evidence in this regard. It is known that managers involved in timing the equity market tend to time the debt market too. The equity market measures market-to-book ratio while debt market measures rate of interest which has considerable impact upon leverage change when the decisions of equity and debt issuance are affected by market timings.

Stein (1996) stresses that managers may time market for maximizing existing shareholders' wealth. Baker and Wurgler (2002) assert earlier collective history attempts towards timing the market. The basic concept is that top managers take on existing conditions required for financing by using whatever current market. Moreover, market associated with heavier aggregate stock issuance, though looks favorable, defer issuances. On the contrary, if favorable, funds may be gathered even when the company does not need it. Though this concept is plausible, it has nothing to say about corporate leverage. On the other hand, it reveals market situations playing a significant role in capital structure.

Baker and Wurgler (2002) utilized an external finance weighted average market-to-book ratio (determined as external capital analyzed by historical market value to book ratio) for capturing firms' equity market attempts. It is revealed that by calculating for firms' growth opportunities related to the usage of market value to book ratio, debt is inversely associated with historical market-to-book ratio. This relation persuades researchers to accept equity market timing hypothesis. Moreover, the authors state that low-leverage firms having higher market-to-book ratio raise funds for share issuance while high-leverage firms raise funds if their market value to book ratio is less. Trade-off theory, market timing theory and the capital structure theory produced by Welch's (2003) examine the determinants of adjusting corporate debt and equity. Hence, companies prefer equity in case relative equity cost is less and prefer debt.

The concept of shareholder value as a main indicator of a company's financial performance is driven by investors. They look for greater returns for enlarging their wealth via firm's management. The longer a firm retains and increases its competitive benefit, the more valuable are its shares. It is reflected in the wealth of a company's investors who look for investing in a stronger future cash flow company. These investors may persuade the company's management for generating shareholders value. Top managers are always in a better position for forecasting a firm's free cash flow as compared to the investors and academics referring to asymmetry information. For instance, a firm's stock price is sh. 50 per share. If the managers want to issue new stock at sh. 50 per share, the investors assume that no one will sell anything for less than its original value. Hence, the real value as viewed by the managers having superior information should be lesser than sh. 50. Therefore,

investors perceive an equity issuance as a negative sign which causes the stock price to decrease (Brigham and Ehrhardt, 2007).

The above mentioned theories suggest different dimensions in the context of leverage and firm's financing. Some comment on the leverage-value relationship and cost benefit analysis while others talk about the order and timings of issuing debt. There are still others who believe that without increasing the risk of company by using leverage in capital structure, the value of the company may be maximized. The following literature on conservatism makes a detail commentary on the verdict.

2.4. Conservatism in Capital Structure

The conservatism in capital structure of a company refers to the zero leverage policy. The companies tend to discourage the debt financing in order to reduce their risk as a consequence of leverage. Previously, the researchers also worked on the relationship and association of zero leverage with the value of companies. The companies which maintain a policy of zero-debt for several years is examined. The authors examine the tendency of various larger non-financial sector and non-utility sector firms taken from the COMPUSTAT data or CRSP data during the period of 1962 to 2003 for avoiding debt (i.e. zero leverage enigma), and conclude that solemnly, the size and industry fail to explain the phenomenon of zero-leverage (Strebulaev & Yang, 2006). They also assert that zero-leverage companies are generally smaller as compared to their proxies, hugely profitable, paying high income tax, having high market-to-book ratio and possessing relatively high

cash balance. Based on the dividend payout, it is found out that zero-leverage companies relatively pay large dividends as compared their dividend-paying proxies.

Graham (2000) puts forward interest-deduction advantage after a marginal tax series is being estimated. He states that companies may enhance the price by 15% if they utilize the optimal debt amount. He also examines that the profitable large companies with liquidity facing low distress cost expected utilize the borrowing conservatively. For these companies, optimal level of the debt as explained by the finance theory is larger than zero-debt policy one analyzes. Conservatism in the debt usage, as stated by the author is positively related to excess holding of cash and weakly associated with acquisitions in future.

In adherence to Graham's (2000) analysis, it is argued that the behavior of zero-leverage is a consistent phenomenon. Utilizing “COMPUSTAT” database during the period of 1971 to 2002, a researcher examines nine hypotheses associated with financial attributes, corporate governance structure and conditions of financial market for the debt free companies (Byoun, 2006). He reveals identical observations to Strebulaev & Yang (2006) in case of financial attributes for the debt free businesses. They conclude that loan-free companies are possess a small size, enhanced cash and marketable financial securities while paying high dividends regarding debt companies. The examination of the companies selected in the sample having conservative policy of debt is well aligned to their results. Dividing sample into smaller and large loan free companies, Byoun examines that small debt free companies are less profitable; however, large debt-free companies are more profitable as compared to levered companies of small size.

Strebulaev and Yang (2006) examine the performance of financially conservative companies in long term by proposing a hypothesis for empirical testing called ‘divergence in beliefs.’ They state that companies choose to avoid debt because of the deferential perception of debt-free companies between top managers and capital market. They also conclude that zero-debt companies high market-to-book ratio in relation to proxy companies may lead investors to think that their equity is overvalued meaning that unlevered companies’ managers possess low valuation of their companies as compared to financial markets. They also state that in the long run, the disparity in valuation between managers and capital market will be perfected. A significant negative buy and hold returns (BAHRs) of debt-free companies is found during the period of 1962-1998; however, this significance is not found for the period of 1987-1998 proving that results adhere to the divergence in belief hypothesis. They also assert the conclusions from Fama-French three factor model and four-factor model showing negative abnormal performance by debt-free companies having three factor model; but its significance disappears with the addition of momentum factor.

Moreover, Strebulaev and Yang (2006) observe that high market-to-book ratio is related to overvaluation of zero-debt companies. Zero-debt companies’ high market-to-book ratio is because of their healthier financial situation coupled with growth opportunities and financial flexibility. The research studies conducted on capital structure conclude that the growth opportunities and profitability are indirectly associated with debt ratio (Graham, 2000). According to Wald (1999), profitability has the greatest influence

on debt/asset ratio. In the recent studies, Byoun (2006) claims that large debt-free companies are more profitable, possess more growth opportunities and have more cash.

It is documented that financial conservatism may not be deemed as a phenomenon which is an industry specific although conservative companies usually exist within industries which are sensitive to financial distress. Low-leverage companies possess higher market to book ratio, adopt the financial policy of a pecking order style and financial slack of stockpile to be used during decline in internal funding and/or for financing acquisitions and capital expenditure. It is also argued that financial conservatism is generally a transitory financial policy inconsistent with the findings of Lemmon et al. (2008) who stress that companies are able to maintain stable leverage ratio over time.

Devos*et al.* (2010) continue to find plausible reason for why companies select a very conservative leverage policy (having no debt for three consecutive years) after testing three hypotheses including managerial entrenchment, financial flexibility and credit constraints. They study all non-financial and non-regulated companies on the COMPUSTAT and CRSP data set from 1990-2008 and state that internal and external governance mechanism is not weaker for zero-debt companies in comparison to their levered control companies indicating that zero-debt policy is not induced by managerial entrenchment. Their conclusions show a mixed support for financial flexibility hypothesis revealing that debt-free companies possess considerably more cash and initiate debt only when new investment options materialize. They also assert that zero-debt companies' lack of reputation in credit markets is the main reason for their remaining unlevered. Current

research studies are mainly related to the motivation for financial conservatism and attributes of companies operating with zero or lower leverage.

Tawiah (2014) observed the trends in financing patterns of firms and states that specific optimal debt-equity mix does not exist and the companies keep on changing the pattern to meet their objectives and conditions. Indian companies are decreasing the debt finance over the period while Ghanaian companies are increasing their reliance on external debt.

Although some companies believe on conservative or zero leverage policy to reduce the risk of the firm and maximize the value, yet there are others who use the leverage to maximize the shareholders'' value. The capital structure theories come into play in the process of debt financing and provide mixed results in literature. Various studies regarding use of debt financing and use of leverage are discussed in the subsequent discussion.

2.5. View Points about Leverage

Foster (1973) reveal that the pre audited estimates of earning per share are used by the individual investors and the aggregate market as an informational content. When such estimates go public, the stock prices rapidly adjust in a way that the investors may not be able to earn abnormal returns based on these estimates. The increase in leverage conveys positive signals as the capacity to service debt is larger (Ross, 1977). So, as the firm's leverage decrease, it is an alarming news in the market. Fama (1985) states that firms convey the positive news while announcing the bank debt agreements. The reason behind is that bankers have inside information and would only approve the loan deal if negative

news wasn't there in the lending process. Similarly, firms announcing bank debt reductions signal unfavorable insider information through the banker actions. Beck (1986) found that there was no overall relationship observed between concentration of industry and profitability.

It is obvious why Myers (1984), an academic expert on this issue, stresses that no companies may adopt several strategies for maximizing shareholder value if capital structure is used as a tool to achieve maximum value. Consideration is required in this matter while determining capital structure. In this regard, pecking order theory helps to understand both the order and the several capital funding choices available to a company. The results show a relationship for the market, but there is an inverse relation between financial leverage and company value. The evidence indicates that capital structures differ from industry to industry.

Maksimovic (2001) entrenched the work done by Rajan and Zingales (1994) to the capital structure decision in less developed economies with different institutional structures of some companies in less developed countries having different institutional structures. The observed determinants of the leverage affirm to be the similar.

The trade-off theory also explains the optimal capital structure of a company as an amalgamation of financing that makes the marginal costs of debt equal to its benefits. One of the major expectation that a trade-off theory sets is that when the firms employ their capital markets externally as a strategy to maintain their values near the optimized level, the leverage ratios will keep on deviating from mean (Hecht, 2000). Another theory

describes the friction existing (Lemmen et al., 2002). Chen and Zhao (2004) enumerate that while resorting to external financing g, the companies having high market-to-book ratio are more prone to issuing equity whereas the firms having high profitability are more prone to issuing debt. This controversy occurs due to the fact that the patterns may be analyzed alternatively by two competitive schools of thoughts of the capital structure literature.

The first school, known as the trade-off theory, asserts that companies select optimal capital structure via balancing their tax and incentive benefits of debt financing and expected bankruptcy cost. This theory states that companies having high market-to-book ratio possess high growth opportunities (e.g., Hovakimian, Opler, and Titman, 2001), and they also keep low cuurent leverage ratio for mitigating the underinvestment issue in case future opportunities arise (Myers, 1977). Hence, these firms are more prone to issuing equity because they realize new investment opportunities and therefore, downwardly adjust their target leverage ratio. Moreover, owing to the transaction cost (Fischer, Heinkel, and Zechner, 1989), companies having high profitability passively collect internal funds and are therefore, under-levered on average. It explains the negative relation between profitability and leverage ratio.

If they adopt external financing, the firms are more prone to issuing debt in order to move towards their target ratio (Hovakimian et al., 2001). Resultantly, profitability fails to explain post-financing leverage ratios as the passive role of profitability is corrected

(Hovakimian, Hovakimian, and Tehranian, 2003). The **second school**, known as costly external financing theory, comprises of pecking order theory and market timing hypothesis.

Launie (1974) developed some models and illustrated in his paper that the return on equity is reduced with the increasing' cost of debt when it approaches beyond the optimal ratio. Hence, an optimal capital structure may be designed by minimizing the cost of debt. The beta of firms increases with increased debt financing (Hamada, 1972 & Rubinstein, 1973). Debt enhances the managerial efforts of the firm by letting larger managerial residual claims (Jensen and Meckling, 1976). The increased debt pushes the management not to waste the firm's assets and the enhanced leverage makes the market equilibrium when agency costs take over the formula. Adverse selection signaling theories suggest that the market suspects overvaluation of stock when a stock offering is announced by the managers (Myers & Majluf, 1984; Lucas & McDonald, 1990). The perceived negative signaling perceived by outsiders can be reduced if the information benefit to insiders is lessened.

In the perfect market, leverage has no influence on value of firm (Modigliani and Miller, 1958). In recent times, the discussion has focused on managerial incentives. The authors argue that the leverage shuffles the management focus on meeting interest payment and make them less effective for achieving the long-term goals of the firm for value. The ultimate bankruptcy by firms and increasing restructurings provoke this view. While others emphasize on the leverage benefits as the managers become more committed to work hard by debt issuance and meet their promises to payout cash flows (e.g., Jensen, 1986; Harris

and Raviv, 1990; Stulz, 1990). Furthermore, they affirm that leverage has costs, but the obligation to make periodic payments to debt holders forces the managers to be extra careful their decision making. At the same time, some authors also agree that the debt decreases the free cash flow (Jensen, 1986; 1989 and Stulz, 1990).

Leverage for each period remains the same if earnings of the firm are allocated in an independent and identical fashion (Scott, 1976). According to Barnea, Haugen, and Talmo (1987), tax benefits of the firm are hurt if the firms have sufficient earnings. Raymar (1991) find that "the leverage increases with the ratio of operating earnings to value."

Miller (1991) states that the investors would not be ready to pay the leverage premium to the company as they have an option to leverage up their personal account or borrowings. An M&M Proposition assumed that the value of the firm is independent of capital structure and is subject to an important condition that shareholders' value cannot be enhanced merely by leveraging up.

Bradley, Jarrell, and Kim (1984) used market value of equity to calculate their leverage ratio and submit that leverage ratios within industries remain similar while they vary across industries. Firms that issue both equity and debt all together enjoy more favorable stock returns for the announcement period than the firms who issue just debt or just equity (Billingsley, Smith, and Lamy, 1994).

Hull (1999) asserts that the research examined the leverage change whether the firm's debt to equity ratio relative to the industry norm effects the market response to stock

for debt announcements. The literature recommends that industry debt to equity ratio norm serves as proxy for wealth maximizing debt to equity ratios. The optimal models expect a reduction in the value of firm value when firm moves away from its optimal debt to equity ratio keeping all other factors constant. Greater fluctuation in the potential rates of return to the leveraged shareholders refers to a greater risk as mentioned by Markowitz and Sharpe (1952, 1964 and 2000). There is no relationship observed between leverage and return on equity which creates a doubt about its effect on growth and market valuation. The authors found a little relationship between leverage and earnings per share growth. In two out of five industries, companies with lower leverage firms demonstrated a slight tendency to have higher rates of earnings per share growth.

Florou and Chalevas (2010) analyzed 861 company-year observations from Athens Stock Exchange with the help of cross-sectional analysis. They observe that operational performance (asset return, leverage, asset turnover and net profit margin), growth opportunities and capability of generating sales influence the stock return. Leverage showed no significant relationship to per share sales growth, cash flow and net income before taxes. In minority of tests, some relationship was found between leverage and price appreciation while in majority of tests, such relationship didn’t exist. The relation between leverage and price change was absent at all time periods in all industries under observation. Leverage exhibit no substantial effect on market valuation. The paper affirms long term debt to total capital ratio is generally not relevant to a firm's relative price to earnings ratio

and to dividend yield on common stock in all the industries at all time periods. A small tendency for valuing the market was observed for the highly leveraged companies.

Theoretically, the low cost long term debt capital can speed up earnings growth and raise the value of common stock. The investors need to consider the return on equity for making an investment while looking at the book values (Hamada, 1972 and Rubinstein, 1973). While Fama and French (1993; 1996) proposed a model that takes into account the risk factors identified with book to price ratio, the beta in CAPM model and proxy of size for market value of equity. Although the efficient market hypothesis (Fama, 1970) believes that the market prices reflect all the relevant information, yet the behavioral finance provides that market information is discounted but still there is information available for the investors to make analysis for generating higher returns. The investors may analyze the present values of the firms, company, industry and economy when market is at disequilibrium as it determines the fluctuation in share price and secondarily the shareholders wealth. The combined leverage explains the stock risk for the selected sample and its impact on the equity risk varies with the growth of industry.

Harris and Raviv (1991) state that leverage increases with the increase in fixed assets and tax shield without debt while it decreases with volatility, probability of bankruptcy, advertising expenditures, product uniqueness and profitability. Eberly (1996) reveal that without leverage, investment irreversibility produces a growth premium, instead of generating a value premium. Instead of a value premium, growth premium is generated by investment irreversibility in the absence of leverage.

Engelhard (1999) stated that the amalgamation of financial contracts chosen by companies for making investments is known as capital structure. According to this definition, financial contracts is defined as the agreements regarding the nature of paid returns (either fixed or variable), the time period in which the financial resources remain at the company's disposal and the currency where financial resources are dominant. On the contrary to given returns, the contracts reveal the agreements that are financial in nature relating to the type of paid returns either fixed or variable in nature, the time period during which financial resources are held by a company and the dominant currency utilized for a company's financial resources.

The value premium may be better explained by the market leverage as compared with the operating leverage because the operating leverage reflects the levering of the fully equity financed or an unlevered firm (Carlson, Fisher & Giammarino, 2004). Some authors' practice of unlevering calculates the market leverage by substituting market value of debt with book value of debt (Choi, 2010 and Hecht, 2000).

In 2000, a theory presented by Chirinko and Singha describes the friction existing among the expense of financial distress and the tax cutting of the funding cost. It further states that the company's trade-off various projects such as the firm's disclosure of to bankruptcy and the increased cost of agency against the tax benefits related to the employment of debt. Aside from these implications, there exists the tax benefits encourage debt utilized by the companies (tax deductibility interest) along with the final capital structure used by the company. This final capital structure serves as a trade-off between

the tax benefits and costs related to bankruptcy and agency. It shows that there is a target or optimal debt-equity ratio for a company as stated by Rotnano et al. (2000) which alters only with the change in benefits and costs over time.

The variation in a firm's stock price makes its market debt to equity ratio to fluctuate with it. This finding of the author is supported by Welch (2004), who discovers that U.S. corporations may have a little hold to stabilize the impact of market stock price changes on their respective capital structures. Johnson (2004) reports that a weak relationship exists between the market leverage and returns of stock after taking into account book to market ratio (also see Gomes and Schmid, 2010). According to the trade-off theory, firms issue more debt when there are high tax rates to take maximum interest tax shields advantage. The expected distress costs are higher in the firms with lower debt and more volatile cash flows. The fluctuation in the firm's cash flows decreases the probability for full utilization of tax shields. The Risk in this situation proves to be unfavorable for stakeholder coinvestment. Welch (2004) says that stock returns are significantly present more ratios than other proxies as the firm does not rebalance capital structure shocks. An option based value of the firm is developed along with information risk to be measured by analyst forecast dispersion (Johnson, 2004). A weak positive relationship exists between leverage and future returns that is unconditional after controlling for fundamental firm characteristics like volatility. The relationship between leverage and future returns turn out to be negative.

The expected rate of returns is expected to be higher for growth firms in case of derived value from growth options as compared to the value firms as the later derive their value from their assets (Zhang, 2005). Both transaction costs and taxes are unable to explain properly the negative relationship between leverage and profitability (Chen and Zhao, 2005). Some authors further provide that the stock portfolios having varying book to market values have same riskiness, measured by CAPM (see Fama and French, 1992; Sharpe, 1964; Lintner, 1965 and Black, 1972). This value premium puzzle, replaced the CAPM model for asset pricing with Fama and French model.

Profitable firms become more valuable as they face lower estimated costs of financial distress. Thus, the firms employ more debt in the perspective of bankruptcy costs and tax. Jensen (1986) found that agency costs perspective value debt of great worth for the income generating firms as they possess lower chances of being exposed to problems. Empirically, the response has to be argued in the perspective of leverage and profitability as the firms start passively accumulating profits (Kayhan and Titman, 2007). It may also lead the firms to accumulate the profits and keep them in reserves without making profitable investments for their shareholders for maximizing their long-term wealth. This scenario may lead to the agency problems as the firms may not be ultimately able to serve their primary objective of establishment which is value maximization for their shareholders.

Penman, Richardson and Tuna (2007) provide that researchers do not agree upon the expected returns model. Although, one feature of rational asset pricing has got a

consensus of researchers. A basic view in “corporate finance” is that the risk of equity and the resulting expected returns are the function of operating risk emerging out of firm’s business operations (or otherwise it would have called the risk of the firm, enterprise, business or its assets) and by the financial risk arising out of credit such, leverages the investment in equity to carry the business operations. Moreover, the authors provide that the book to price ratio has a positive relationship to the sub sequent stock returns but the leverage constituent of the book value to price ratio is negatively related to future stock returns conditional upon book to price ratio. In addition, both book to price ratio and leverage

elucidate returns linked with nominated factors of Fama and French (2004) including book to price factor even if negatively such for leverage. Such finding with respect to leverage component of book to price ratio controls for estimated beta, size, momentum, return volatility, and default risk.

The negative relationship between future returns and leverage violates a basic assumption of pricing the leverage and facts to an inadequate representation in asset pricing model. Lemmon, Roberts and Zender (2008) illustrate that the firms operating in industries where the median firm has high leverage incline to have high leverage while the firms with high market-to-book ratio are more likely to have low level of leverage. The author also evidence that the firms having more tangible assets tend to have high leverage. On the other hand, the firms with high profits are inclined to have low leverage. The paper elaborates that the large size firms in terms of book assets practice high levels of leverage while the

firms exhibit high level of leverage when the rate of inflation is expected to be high. The leverage regressions that use the above-mentioned determinants range from 18% to 29%, depending on the specification. On the other hand, the adjusted r-square from a leverage regression on firm fixed effects is found to be 60%, suggesting that the maximum variation in leverage of a panel firms is time invariant and is enormously unexplained by formerly identified determinants. One possible description for the above-mentioned findings may be that commonly tested empirical models are misidentified because managers are more worried with variation in long term or equilibrium level of leverage determinants, opposing the short-run fluctuations. The estimated associations between leverage and the identified determinants are highly sensitive to the change in model specification.

The firms' capital structures are observed to be stable over longer periods of time. Firms are likely to have the same high or low leverage structure even for over 20 years. The study investigates that stability of capital structure over time refers to the stability of factors motivating cross sectional variation in leverage over long horizons. While deciding about the debt financing, the corporations reallocate their future cash flows away from their equity holders for further cash expectation. In this regard, tangibility and firm size are the important factors to explain rather they stand for the increased market o book firms. Larger and more diversified firms are exposed to lower default risk. The research affirms that older firms having better reputation in debt market face lower agency costs associated with debt. Hence, the trade-off theory expects larger, highly mature firms to have relatively high debt (Frank and Goyal, 2009).

Frank and Goyal (2009) explore that growing firms provide a higher value to the investment of stakeholders. That's why the tradeoff theory forecasts the decrease in leverage due to increasing growth. On the other hand, market timings assume that greater market to book value reduces the firm leverage. Firm growth may also be used as a measure of free cash flow, which managers can use to build empires.

Schmid (2010) documents that the relationship between book leverage and returns is weak while applying before and after control over book-to-market values. Though, Fama and French (1992) argue that book leverage and stock returns are negatively related after accounting for market leverage.

Shobhana (2011) found that the market capitalization has a positive impact on the equity share prices in one group while the book value per share was significant in the other group. Another study found that the Earnings per share, dividend yield has a significant effect on the equity share price except growth (Shukla & Jeenal, 2011). On the other hand, Nirmala (2011) studied that leverage is a significant determinant of market share price for Auto, Healthcare and Public-Sector Undertakings.

The interest tax shield provided by the firms enables the firms to enhance their investment irreversibility effectively. Ozdagli (2012) suggests a high relation between the stock returns and investment irreversibility along with leverage and interest tax shield. On the other hand, a weaker relationship is reported between book to market value and stock return. Furthermore, Debt exhibits two distinctive characteristics as per the article. One, its risk free and secondly, it is limited endogenously by the issuers up to a certain proportion

of the total capital. Meanwhile, the interest is tax deductible, therefore, the firms choose the debt financing over equity and would prefer to have an unlimited debt. Thus, to keep the debt risk-free, creditors of debt will restrict the amount by accepting the collateral i-e, the resale value of present capital (Hennessy and Whited, 2005; Livdan, Sapriza & Zhang, 2009). The firms may opt a debt level ensuring the non-negative market value of equity to avoid the bankruptcy. This article illustrates that most preventive approach to avoid the bankruptcy as compared to the debt agreement inducing a nonnegative market value of equity. Ozdagli (2012) further evidence that Value premium is derived extensively from market leverage over that of operating leverage channel.

Bhatti and Sultan (2012) take the reference of financial press stating that companies having lower leverage show low distress risk because of the reduced exposure to credit market especially during the credit crises. They also assert that leverage risk factor has great impact on various companies during financial crises. In contrast, when it is compared to conventional stocks, Sharia stocks appear to be more sensitive to leverage. However, socially responsible stock groups reveal the least sensit0ivity level to leverage risk proving to be more attractive during credit crises for the preservation of wealth.

Almumani (2014) found that Earnings per Share and Book Value show a significantly positive relationship with the market price while size is negatively associated with the price of a shares.

2.6. Stock Market Response

Modigliani and Miller (1958 and 1963) suggest an insignificant relationship between the financial leverage and the firm's value until and unless the firms are operating in a taxable environment where the tax payments may affect the capital structure. Weston's (1989) commentary on MM's propositions affirms that a perfect, market equilibrium necessitates no change in market value by its financing decisions and a linear raise in the required rate of return in equity with financial leverage will result.

DeAngelo and Masulis' (1980) and Masulis' (1983) enumerate that the best suitable or the optimal debt level is found by the companies in which the varying levels of debt from the industry averages or norms may enhance or decrease the firm' value. According to DeAngelo and Masulis (1980), the efforts by firms to obtain the optimal capital structure is calculated by different agency costs, bankruptcy levels or the tax gains and losses from the leverage usage; thus, compensating for other tax shield equipment of depleting, depreciating, amortizing and investing the tax credits. Masulis (1983) further stresses that when the companies issuing debt move toward the industry average from below, the overall market reacts positively which does not happen if a company moves away from the industry average.

If the market price of the company's securities is higher as compared to the original firm value, the securities are issued by the managers. This deviation between the market price of the company's securities and the original firm value exists because the investors

possess inadequate information about the value of company's assets; thus, mispricing the equity (Myers and Majulf, 1984).

Chakravarty, B. S. (1986) has observed that organizational performance of the firm is associated with increased return on assets while enhancing shareholder profits that in turn increases the effectiveness of the company. The important concerns may be overlooked when the variables across the firm and the industry are assumed independent of each other (Scott & Pascoe, 1986). The effect of firm is found to be significant on its profitability. Some other author's verdict on MM's assumptions provide that a change in market value by capital structure decisions in the case of a perfect market equilibrium is not required (Weston, 1989). A literature study proved a negative relationship and stated that the cost of financial distress is higher for the firms as their market to book ratio increase (Booth, Aivazian, Kunt & Rajan & Zingales, 1995). In 1976, Galai and Masulis, widely observed the increase in the firm's risk in response to the increased borrowing as a consequence of supporting the stockholders with limited liabilities.

The firms optimize the debt level and the variation in the level of debt from that of the industry averages may increase or decrease the firm value. Therefore, the firms work out to attain the optimal level of financing (DeAngelo & Masulis, 1980; 1983). Such optimization in capital structure is measured by various factors like the cost of agency & bankruptcy, the tax shield from leverage, pay off for other tax shield mechanisms which include the depreciation, amortization, depletion and the tax credits from investment.

A significant relationship of high equity to debt ratio with the firm profitability with an impact of reduced risk, ensuing an enhanced level of profitability is illustrated by Hall and Weiss (1967). Jensen & Meckling (1976) that the values of companies change with different levels of debt usage. Their values enhance with the increased level of debt to the extent when the marginal gains realized from leverage equate its marginal cost of bankruptcy. At this level, the company's value touches its maximum. By further increasing the level of debt usage, the company's value will not only increase but will also decrease as per trade-off theory which later includes the agency costs too.

Moreover, the study highlights the possible correlations between a firm's capital structure with its respective industrial sector, income variability and the operating leverage. The authors associated the characteristics of a firm with its class of leverage and concluded that the industry is associated to the leverage of a firm but is less evident while the income variability estimated in different manners cannot be correlated with the leverage of the firm. The risk associated with the firms lying in a specific industry with consistent profits and a dependency on the firm's total cost influenced by the variations in output determines the decision of financial leverage. The variation in output is related to the nature of the environment in which the firm operates. The cross industry relationship between the cost of equity and the firm leverage is also established by Hamada (1972). The variation was reported for the leveraged firms than that choosing otherwise. A negative influence was found by Gritta (1979) in the airline industry where the operating income was observed extremely volatile.

Rajan & Zingales (1995) continue their research as Jensen (1989) argues that if the low debt firm is not able to make the fixed payments of debt may have various impacts for the firm's control if compared with the firm to meet fixed obligations, operating at high levels of debts. In the first case, the low debt firms are more likely to liquidate rather than the high debt firms with same case as they may restructure themselves particularly if they have closely held obligations of debt. The management of such firms may ask for more debts committing the repayments from its future cash flows but may lose the repute at times or become unattractive for the current and potential investors. The previous studies explain that the increasing risk of o firm due to leverage may lead towards the liquidation of firm or threat of being taken over. A proposition may came into being for the above statement that a sufficient amount of profitability is required by the firm to meet its obligations. In 1980's, the restructuring actions were observed and a substantial influence is reported on the cross-sectional leverage distribution (Campbel & Whited, 1990).

In 1991, another two authors, Harris and Raviv illustrated that the leverage ratios corresponding to each other are usually acceptable by the firm in a specific industry while they may fluctuate across different industries. In case of the events augmenting the level of leverage, the real owners tender the ordinary shares having the cumulative market value and the value of dividend are lower than the realizable liquidation value plus the preferred stock annual dividend. Therefore, the net influence on the firm is to raise the proportion of its fixed debts. An argument may be provided by Pinegar and Lease in 1986 that the above scenario may lead to enhanced influence of firm's lenders and their respective

representatives sitting with the board of directors. Such situation may trigger the company's management to opt for the risky investment for their company in order to maximize their returns as the higher expected returns may be generated out of higher proportionate risks. Thereafter, since the ordinary shares offer one vote per share, the explicit number of voting rights of the participating real owners is declined or totally eliminated. Moreover, the research argues that the alteration in the level of leverage does not require to change the pre-event tax position of the commencing firms in order to influence the discrepancy in firm value. Particularly, if the preferred stock is offered for exchange against the common stock in company's announcements, the scenario may produce positive revaluations of the firm approximately in all events of the increased leverage. The signaling preposition predicts an adverse change in the value of the firm when exchange of preferred stock for the common shares is offered in case of leverage reduction events.

In 1993, Gibbs suggested that the initial firm leverage is irrelevant to the opportunities of investment available to the firm, hence, the firm may opt for the lower level of financial leverage as a result of free cash flows. In addition, the the decline in ten risk level of the firm may reduce the proportional returns with the mangers choice of less profitable investments with a disregard of the capital market risk. In contrast, Jensen recommend in 1986 that the decrease in the level of financial leverage is one of the pointers for estimating free cash flows. Lucas and McDonald (1990) enumerate that top management take an optimal decision of pending the equity issuance till they get an investment opportunity causing a rise above the actual value of their stock price. The

company's management do not have an option to do it as they hold the insider's information about the value of their firm.

Raymar (1993) and Dierkerns (1991) investigate that the financial leverage and firm's opportunities for growth is not adequately addresses in the past empirical researches. Therefore, they investigate the share prices to the issuance of equity in the Finnish capital Market. They observed the influence of financial leverage and the opportunities for growth on the stock market reaction to equity issuance. Dhillon (1994) stated that shareholders usually give out funds for the future return in terms of dividends; therefore, increasing company's future value and gaining twice in terms of rise in share values and dividends obtained. An empirical study conducted by Hatfield, Cheng & Davidson in 1994 observed the firms with higher and lower debt operating in the same industry and concluded that the perception about the market judgment of yielding finances with the consideration of a firm's leverage with that of an industry average has proven to be wrong.

The firms may move away from or towards the industry norm by altering the debt level or by a raise or a decline in the firm value. The study initiated by Hatfield, Cheng, & Davidson in 1994, computed the financial leverage ratio built on the market and book values of equity but ended up with the identical results. An insignificant or a negligible relevance was found with the market if the level of a firm's debt and that of the respective industry was tested. Hence, the study proved the irrelevance of the market with the association of the firm's level of the debt and same for the respective industry. In addition,

the conclusion of supported Modigliani and Miller (1958) who initiated the irrelevance of financial structure and the value.

The common perception about the firm's value in market demonstrate a relevancy with the financing decisions of managers (Staking & Babbel, 1995). The technique of financial management for the risk of interest rate influence the firm value. As a consequence, the financial leverage compared to the value of equity in the market quickly declines with the increased interest rate risk. The scenario arises when the owners of the firm are incapable of hedging the interest rate risk or of realizing the maximum value of franchise when the increased rates of interest makes the firm riskier. If the financial leverage augmented to some extent above the uncertain levels, the firm's value of franchise is raised but at a diminishing rate where the franchise value is determined by Tobin's Q.

Mc Laughlin et al. and Gombola et al. in 1998 whereas Smith and Watt in 1992 approve that the seasoned equity offerings produce a more negative market reaction when the firms possess higher growth opportunities than those having less opportunities for growth. They also said that the companies having high growth opportunities are related to higher level of information asymmetry; hence, they are more overvalued as compared to low growth companies which lead to more negative market reaction.

According to Ferield (1994), the variation between P/B and P/E is yet to be further analyzed. The higher P/B ratio reveals the rates above the average efficiency of owners' stock income. On the contrary, higher P/E ratio reflects income growth which is expected to be growth in book value. The divergence between expected return on equity and

expected growth in uncommon revenues is essential. A firm may have higher earnings growth several decades while remaining profitless simultaneously. On the other hand, a firm having lower earnings growth may be profitable in case of unique high equity return. P/B and P/E reveal the distinction between expected equity return and uncommon earnings growth which together reveal market's future expectations profitability over current profitability.

Barclay, Smith and Watts (1995) assert that the stock price plays a significant role in calculating a company's leverage. The probability of equity issue of companies having greater stock price increases is relatively more while companies having stock price decline retire debt. It adheres to the concept that stock price increase is related to improved growth opportunity that lowers a company's optimal debt ratio.

Lang, Stulz and Walking (1991) employ Tobin's q as a proxy for determining the value of investment. Companies having high q reveal that they use their free cash flow to invest in positive NPV projects while those having low q invest in negative NPV projects. Hence, free cash flow must be paid out in dividends to shareholders.

Corporate performance is referred to as a potential determinant of capital structure. The tax trade-off model reveals that profitable companies use more debt as they have a higher tax burden and low bankruptcy risk (Ooi, 1999). On the contrary, previously Myers (1984) asserts that a negative relation exists between debt and profitability as successful firms do not require dependence on external funding. Instead, they depend on internal reserves obtained from past profits. Titman and Wessels (1988) and Barton *et al.* (1989)

state that companies having higher profit rates maintain low debt ratio because they generate funds from internal sources.

As far as the stock market response for leverage is concerned, Raymar (1993) and Dierkerns (1991) examine that owing to sufficient financial leverage and the corresponding default risk, results in the positive market reaction to equity issuance. Such response to the issue of equity in a highly levered company is more positive as compared to low levered company because highly levered companies function not as good as the low levered ones at the equity issue declaration.

The researchers have suggested two possible clarifications for the effect of value. First states that the impact is because of a relationship between book value to market value of equity and financial distress risk (Fama and French, 1992, 1993, 1995 and Chen and Zhang, 1998). This explanation shows that value effect is present due to book value to market value of equity indicating a company's degree of financial distress risk. Companies having higher book value to market value of equity (value companies) are revealed to possess earning issues and higher level of financial leverage. Hence, the risk-based explanations for value effect asserts that the premium associated with value firms is a rational result drawn out of high financial distress risk inherent in value firm.

A second explanation by Lakonishok, Shleifer and Vishny in 1994 and Daniel and Titman in 1997 states that this effect is because of irrational price setting as the investors turn over optimistic or pessimistic regarding companies showing specific growth or the attributes which are value relevant. Moreover, Shleifer and Vishny (1997) and Ali, Hwang

and Trombley (2003) stress that hurdles including risk and transaction costs hinder arbitrageurs from exploiting systematic mispricing of investors.

A general perception shows that probability of default and bankruptcy cost (financial distress cost) increases with high level of leverage and enhanced risk of company. Rajan and Zingales (1995) state that there exists a negative relation as cost of financial distress enhance in companies having higher market to book ratio. Whereas, other reasons behind an adverse association of leverage with the market to book value may include high discount rate usage for shares of high-levered companies with financial distress being the distress risk price. Fama and French (1992) support the verdict and state that companies having lower market to book value ratio possess negative correlation which also appears to be negative for companies operating with high market to book value ratio suggesting that the factor of financial distress is not responsible for conclusion drawn by Rajan and Zingales in 1995.

Staking and Babbel (1995) confirm that generalizations regarding market value of a company are associated with the decision of management for a company's financial configuration. The firm's value is affected by financial management in interest rate risk and financial leverage because market value of equity can suddenly drop if interest rate risk enhances. This situation occurs if the shareholders of a company fail to hedge the interest rate risk or become unable to realize the maximum franchise value in case it becomes risky due to increased interest rate. Owing to the raise in the financial leverage

marginally above the uncertain level, franchise value of a company enhances but with a decreased rate (Tobin' Q is used to calculate franchise value).

Rajan and Zingales (1995) found out that profitability variation reveals a negative relation with change in leverage when dividend and investment both remain constant. In this case, major form of financing is debt financing in short run. This research study explores the relation of leverage and financial performance for supporting or refuting the conclusion of above-mentioned opinions. Rajan and Zingales (1995) further extend this study to reveal the negative relationship between market leverage and market to book ratio in seven different states. Penman (1996) related variations between P/B ratio and P/E ratio to conclude that price to book exhibit the expected return on the shareholders equities.

Haugen and Senbet (1998) suggest that future value of the firm will be declined if the future debt is reduced. They further elaborate that the default is a response to the limitation of leverage in their mode. Depressed value of firm causes default. Therefore determination of optimal debt is essential and the study considers sensitivity firm's earnings vital for the optimal portion of debt in capital structure. Therefore, the firms who possess low sensitivity in earnings and are marked stable are open to the risk of higher earnings and get levered highly. The correlation between the risk of a firm's business and the use of debt may not be adequately estimated with ordinary determinants of variability in earnings if the heterogeneous processes of earning are applied to the firms. Such statement indicates that the firms may raise their earnings after taxes as a result of reduced rates of interest and finally, the increased profits may produce higher EPS ratio and the

dividend payout yielding an increase in the firm's performance. As a consequence of reduced rates of interest and the tax shields, if the marginal earnings are reserved for the company's growth, the long term worth is maximized which in turn focus towards the company's primary goal achievement which is stated as wealth maximization.

In 1999, Hull investigates that the response of the market to the firm's leverage shrinks the announcements and proves to be dependent on the methodology in which the firm determines its debt to equity ratio associated with the industry average of debt to equity. Capital structure is essential as it affects the returns of the investors. It is also essential to assess the company's ability in dealing with its competitive environment (Mingfang and Simerly, 2000). Gleason, Mathur and Mathur (2000) found an inverse relation between a firm's leverage level and its performance within the European states. It is risky for the firms to obtain short term debt from local lenders than long term debt due to increased chances of insolvency. For this purpose, a research study is conducted on the capital structure of the restaurant industry concluding that firms select both long term debt and short term debt options for financing their operations; however, they rely more on short term debt. In 2000, Whiting and Gilkison concluded the likelihood of dividend cuts decline with the respective increase in the value of short term debt making the total leverage of the firm to increase. In addition, the authors report a reduction in the level of asset and dividend in an aggressive manner by poorly functioning companies with extraordinary leverage rather than those operating with reduced level of leverage. The finding illustrates that even when the firm is not in a position to pay the dividends of shareholders out of the income

earned, it may please its shareholders via payout their profit by the means of increased debt as it may prove a basis for attractive investment prospects for the potential investors. But in the meanwhile, the firm performance matters as it puts a question mark on the existence and sustainability of the firms producing deprived performance. Holz (2002) states that the firm's leverage level and its performance are significantly and positively associated with each other.

Baker and Wurgler (2002) document that with low cost of capital and high value of market, the firms with low leverage generally make an equity issuance to raise funds. Further determine the persistence of market valuation impact on company's capital structure with the help of market to book ratio. They reveal that leverage is affected by historical market to book ratio in the presence of time varying targets and adjustment costs. Weill, L. (2003), provide an empirical evidence of positive relationship between financial leverage and performance of corporations and show the contribution of institutional factors that affect leverage- performance relationship. Moreover well protected rights of creditors have made the negative – leverage relationship on the performance inferior. The strong negative –leverage relationship on performance results in response of conflicting interests of creditors and owners. The competent investors know that the companies possess the incentive of issuing new shares if the market overvalues its existing shares.

The levered and unlevered profitability has a negative mean leverage effect but a little positive median effect for leverage. The two parts of the operating liability leverage effect, the operating liability leverage and the operating liability leverage spread have a

positive relationship characterized by the positive correlation between operating liability leverage and return on operating assets (i-e, levered profitability). On the other hand, a positive relationship exists between the two constituents of the financial leverage effect. Such leverage effect is comparatively large at the median and mean. Due to a positive relationship between the financial leverage and the borrowing rate, the Pearson correlation between financial leverage and financial spread is negative and insignificant. The reason for positive relationship between financial leverage and borrowing rate is that higher risk causes the interest rates charged by creditors to rise and usually the profitable firms are likely to have low levels of financial leverage (Nissim, D. Penman, S. H., 2003).

In 2005, Bernanke and Gertler described that the monetary policy makers practice the leverage over the short term rates of interest in order to effect the capital cost and the fixed assets expenditure thereafter. The researchers agree that the lending network is based on the factors that enhance and provoke the effects of interest rate. Louis, Cheng and Davidson argue that firm's growth & developments affect the market response for debt announcements. The firms having high growth potential can go for higher level of financial leverage because these are capable to cover their financial costs easily. The companies having low growth potential cannot opt high levels of financial leverage because their earnings cannot meet the fixed financial costs of leverage.

Abor, J. (2005) found positive relationship between debt (short term) to total assets and return on equity. Contrary to it, a negative relationship has been identified between return on equity and long-term debt. As far as the total debt is concerned, a significant

positive relationship was found when its ratio was compared to the return on equity. Shareholders are extremely sensitive to a firm's performance in which they are investing as it is related to their wealth. Due to this reason, maintaining the value and enhancing shareholder's wealth over a longer time period is the primary purpose of firms and it is obtained only via good performance (Yahya, Zadeh, Ferro & Abadian, 2006). Chen and Zhao (2006) explained a non-monotonic and positive relation between market to book ratio and leverage. Companies having high market to book ratio are more profitable and undergo low borrowing cost whereas companies having lower growth opportunities require more debt. A negative relation to be driven by a subset of companies having higher market to book ratio was found earlier because debt financing enhances when market to book ratio increases from lower to medium and declines when market to book ratio enhances from medium to high.

Abor, J. (2007) suggests that capital structure also affects the financial performance to a minimum extent. His results reveal that leverage ratios and the capital structure affect the performance of SME's negatively. Moreover agency issues also contribute to follow high debt policy that results in inferior performance of SME's. In 2007, Madan examined the highest return on equity companies operating in a specific industry. It is provided that the ROE generates a significant information about the standing of whole company altogether with the capitalization and prices of market. In 1973, Baker enumerates that the financial leverage estimated inversely by using equity to total assets ratio illustrates a significant adverse relationship.

Ezoeha (2008) employed pecking order theory and empirically show the negative and significant relationship of firm size and profitability on financial leverage in Nigerian firms. The study also found positive association between firm age and financial leverage. The total financing of Nigerian firms is composed of more short-term liabilities as compared to long-term obligations. Muradoglu and Sivapradad (2008) investigated the effect of leverage and Stock Returns. They started by using MM model and elaborated it further in order to investigate the relationship of leverage with stock market returns. The authors discussed the impact of leverage on Utilities and Oil & Gas industries and found an adverse relation concerning the financial leverage and the Stock Returns. They further explained the effect of leverage on Stock Returns with reference to all risk class group first by controlling other risk factors and then at the portfolio level. They found an inverse relationship between Leverage and Stock returns and concluded that contradictions in the literature and results are mainly due to the restrictions in the sample. The researchers negated the existence of a positive association between the financial Leverage and Stock Returns of the companies operating in the Utilities and Oil & Gas sector in spite the fact that it is a unique and highly risk class due to heavy regulations followed by the governments or other regulatory bodies. The researchers negated the fact that there is positive relationship between Leverage and Stock Returns in the Utilities and Oil & Gas companies in spite the fact that it is a unique and highly risk class due to heavy regulations followed by the governments or other regulatory bodies.

In 2010, some other authors Florou and Chalevas examine the effect of leverage both operational and the financial as well as investment management ratio on the firm's returns from stock. Analyzing company & year 861 observations taken from the stock exchange of Athens with the help of cross sectional analysis, they observe that operational performance (asset return, leverage, asset turnover and net profit margin), growth opportunities and capability of generating sales influence the stock return.

Arslan (2014) also asserts that increase in dividend yield leads to reduction in stock prices whereas stock market price exposes an upward trend with the increase in price to earnings ratio revealing a considerable positive correlation between them.

Adami, Gough, Muradoglu, Sivaparasad (2010) in their paper examined the relationship between unusual Stock Returns with Leverage by further expanding the work of Modigliani and Miller, and analyzed the abnormal returns while using the Capital Asset Pricing Model presented by Sharpe and Lintner. The authors found that the stock returns decreased with leverage firms at the firm level and that the cash flow from debt financing was determined by the level of Leverage. Bhat and Sultan (2011) further stated that as compared to the conventional and social stocks, the stocks issued under Shariah Compliant companies are actually low leveraged stocks; and thus, are less vibrant to leverage risks.

Moridipour and Farrahipour (2013) assert that the ratio of market value to book value of equity reveals the return on that equity; hence, this ratio greatly affects shareholder value. The ratio of market value to the book value of equity also shows the return on the

assets utilized in a business unit. The P/E ratio is known as the book value of growth index while the P/B ratio refers to the growth in the book value.

A firm's equity capital is measured in terms of either its market or book value. Shim and Siegel (2000) state that theoretically, firm's market value should be used for this purpose as it holds all the information.

Rajan and Zingales (1995) and Booth et al. (2001) observe that determinants of capital structure are highly sensitive to leverage choice. Sakran (2001) adheres to the pecking order theory as various research studies show a negative relation between profitability and debt financing.

Graham and Harvey (2001) observe the enormity of stock price stating that around 68% of CFOs consider the extent of under/overvaluation to be top factors affecting the decisions of issuing common stock or convertible debt. On the contrary, empirical evidence shows that these factors are not always applicable to all firms for designing the financing pecking order. For example, Booth et al (2001) examined that factors influencing capital structure decision in developed and developing states are similar. In contrast, Rutherford (1985) found out that Japanese companies significantly rely on debt financing whereas US and UK companies rely on equity financing. Hence, factors affecting capital structure decision are mainly firm based or market specific.

In 2003, Nissim and Penman examined in their empirical investigation that, it is essential to describe the way in which price to book ratio is influenced by the two kinds of leverage including operating and financial leverage as the firm's price in the stock to its

book ratio is based on expected profitability. It is of great concern how companies correct or fail to correct their level of leverage. The pattern adopted for the correction is of great concern as it assists in distinguishing alternative theories of capital structure (Frank and Goyal, 2003).

Modigliani and Miller (1958 and 1963) assert that there exists an inconsiderable relationship of financial leverage and the value unless the companies function in a taxable environment where tax payouts may influence the capital structure. On the contrary, Weill, L. (2003) determine a direct relationship of the financial leverage with the respective corporate performance.

Strebulaev and Yang's (2006) explanation of the association between greater market value to book ratios of zero debt companies and the over valuation in the capital does not seem to be accurate because firms adapting conservative financing policy earn more profit (Myers, 2001). They have valuable growth opportunities (Graham, 2000) and these firms possess huge amounts of cash which results in improved operational performance (Mikkelson & Partch, 2003). Hence, higher market to book ratio for zero-debt companies result in the market recognition of opportunities for the debt-free companies held by financial flexibility rather the wrong overvaluation done by capital markets. Hence, the debt free companies are exposed to greater growth opportunities as a result of market recognition and therefore, the exhibit the higher market value to book value ratios. The phenomenon is sustained by the firm’s financial flexibility in spite of overvaluation made by the capital markets mistakenly. Frank and Goyal (2003) observed the empirical

implications of trade-off theory, market timing theory and Welch's theory of capital structure with the help of aggregate.

Chen and Zhao (2004) examined that market value to book value ratio and firm's profitability are the two essential determinants of capital structure. However, as empirical evidence can be examined by both theories, the trade-off and the theory of costly external financing (based on both pecking order and market timing hypotheses), the economic interpretation of these variables is still controversial in finance literature. It is concluded that companies having high market to book ratio are more prone to issue equity not because these firms anticipate adjust their leverage ratio (targeted) in a descending order but because these firm have low external financing costs. Likewise, companies having high profitability level are more inclined towards the issuance of debt not because these firms anticipate to meet their targeted ratio but because these firms have low debt financing costs.

The trade-off theory describes that companies having high market to book ratio do not issue an extra debt on a residual basis as the situation assist in reducing their target ratio. However, when a high ratio of market value to book value indicates low outsiders cost of financing for equity and debt, the theory of costly external financing examines that companies having high market to book ratio are not only more prone to issue equity but also to debt or both. The trade-off theory also explains that the ratio of market value of a firm to its book value matters as the ratio illustrates the newly available opportunities for growth. Hence, the role of market to book ratio should be reduced followed by the adjustment of growth opportunities. On the contrary, the costly external financing theory

does not only describe growth opportunities; therefore, predicting that the effect of market to book ratio still continues even after controlling growth opportunities. Various research studies determine consistent and strong evidence in this regard stating that the role of market value to book value ratio and the firm's profitability favors the costly external financing theory but is mismatched with trade-off theory. Particularly, companies having high market to book ratio are more prone to access external markets such as only equity issue, only debt or both.

This pattern continues to exist irrespective of company's position related to target leverage ratio even after controlling growth opportunity variables. While comparing equity to debt, companies having high market to book ratio are more prone to issue equity.

Asset pricing research studies examine that cross-sectional stock returns is highly associated with company's book value to market value of equity. Moreover, these research studies also assert that after controlling differences in beta and size, the book to market equity ratio plays a pivotal role in describing stock returns. It is generally known as value effect or value anomaly (Banko, Conover and Jensen, 2006).

Strebulaev and Yang (2006) study that high market to book ratio is associated with overvaluation of zero-debt companies because their high market to book ratio is the result of their healthier financial situation coupled with their growth options and financial flexibility. In 2000, the research study by Graham on the financing structure of the firms demonstrate that the firm's profitability and its growth opportunities show an inverse

association with the debt ratio. Wald (1999) states that profitability possesses the highest single effect on asset/debt ratio.

Banko, Conover and Jensen (2006) found out strong support regarding the prevalence of value effect because it exists in an enormous majority in defined industries (15 out of 21). Moreover, no firms indicate a considerable growth effect i-e a significant negative influence on the Book Equity to Market Equity. The evidence regarding the influence of value across industries show a disagreement with the idea that the vital effect of value is observed in the industries which are found most difficult to value (for instance, industries comprising of high proportion of intangible asset).

Oghlo and Mohajan (2006) enumerate the capital structure and ratio of market value to book value stating that financing structure of firms is negatively associated with market value to book value ratio as there exists an inverse relation between firm's financial leverage and market value to book value ratio. According to Ferideyon (2006), the period 1998-2003 revealed that risk premium returns is dependent on size and B/P ratio while the other variables including national impurity output, inflation, advantage rate level affect stock returns. Abor, J. (2007) states that financial performance is influenced by capital structure though not widely.

Frank and Goyal (2008) assert that the argument regarding the relation between market to book ratio and current leverage still continues. Liu (2009) is of the view that the relation between historical market to book ratio and current leverage is consistent with partial adjustment leverage model.

Lauraly (2008) observed the impact of B/P ratio and effectiveness of past stock upon current financial leverage concluding that B/P ratio and efficiency of the past has a great impact upon financial leverage. Market value per share is considered to be the dependent variable in stock price literature (Palliam, 2006; Al-Tamimi, 2007 and Christopher et al. 2009).

Do and Nhu (2009) observed the impact of financial leverage and the opportunities for growth of initiating firms upon the market reaction to SEOs on the date of declaration and issuance in Finland. The evidence from the research revealed that leverage holds a considerable adverse influence on SEOs. Highly leveraged companies undergo more value loss as compared to low-levered ones at the announcement of equity issue; thus, supporting the alternative notion of leverage effect. It is further concluded that leverage has an adverse relationship with asymmetric information. Therefore, an equity issue results in an increase in the information asymmetry level for issuing companies. Hence, the information asymmetry level is higher for high-levered companies while lower for low-levered ones in case a company declares equity issue decreasing its leverage. It also observes stock rise reaction to the issuance of equity in the Stock Market of Finland while investigating the effect of leverage and the opportunities for growth on the market reaction to equity ratio. Various theories conclude a relevance between the firm leverage and its growth opportunities with the reaction of stock price to the issuance of equity.

The conclusions of Do and Nhu (2009) adhere to earlier research studies (Pilotte 1992 and Burton et al. 2001) along with the hypothesis that investment opportunities play

a vital role in describing market reaction to equity issue documenting a positive relationship between growth opportunities and the abnormal returns of stock on the day of event. Many theories assert that a company's current capital structure is a key element to predict the responsiveness of the stock price to the equity issue. They state a positive stock market reaction to the equity issuance with the presence of considerable level of leverage and the risk of default thereafter. Such reaction of the market to equity issuance of highly leveraged firms is more positive as compared to low-levered companies.

As studied by Shleifer (2000), the ratio of market to book value can be considered as a measure of cheapness of the stock. The research study by Muiruri (2012) also focused on the establishment of the degree of the association between the leverage and market to book ratio by collecting evidence from the listed companies with the Securities Exchange at Kenya's Nairobi. Regression analysis of the data from a sample of 36 organizations listed at the Exchange for the past 5 years (2006 to2010) was held to analyze the variables leverage and market to book ratio while controlling for profitability, firm's growth, its liquidity, tangibility and non-debt tax shield simultaneously.

This research study showed that firm's leverage can be determined by market value to book ratio. There exists a significant negative relation between leverage and market to book ratio. It was found out in the results of the regression analysis used in this research work. Therefore, market to book ratio is one of the variables that is essential to study when companies decide their target leverage. There exists a positive relation among control variables, firm's growth, its size, liquidity and tangibility. The positive change in these

variables result in an increase in the leverage positions because the growth of the firm will lead to an increased demand for the external funds, its size will encourage other companies to borrow, the liquidity will lead to favorable credit assessments and the tangibility will provide assets for contract.

It is well established by Eltayeb in 2011, Long and Malitz in 1985, Smith and Watts in 1992 and Barclay, Smith and Watts in 1995 that market valuation is a fundamental determining factor of capital structure as there exists a negative relationship between market leverage and market to book ratio. It is a commonly used proxy in growth options.

Similarly, Peterkort and Nielsen (2005) assert that market to book ratio is a risk factor in company's capital structure. This argument is based on the relationship between (i) financial risk and measures of capital structure regarding the market value of equity and (ii) asset risks and measures of capital structure regarding the book value of equity. Eltayeb (2011) observes that market value to book explains leverage by using market to book ratio of overcoming the deficiency of using only stock price for valuation. He also says that market to book ratio is favorable according to market timing hypothesis because it relies on market factor. Other researchers investigated the market timing data interpretation. For instance, the studies of Leary and Roberts (2005), Hovakimian (2006), Flannery and Rangan (2006), Alti (2006) and Kayhan and Titman (2007) reveal that market timing does not have prolonged effect on company's leverage and the companies actively rebalance their leverage ratio toward a target level. The questioning of market time hypothesis is based on the interpretation of data.

Many previous researchers assert that market valuation is amongst the major determinants of capital structure. Ruan, Tianand and Ma (2011) state that managerial ownerships affect capital structure which later impact firm's value. On the contrary, Balnchard et al. (1993) examine that when the stock prices are higher, the firms first issue new shares opportunistically and later invest these proceeds in the bonds.

`Bitok et al., (2011) illustrated the determinants of leverage at Nairobi Securities Exchange, Kenya. He stated that in all the 54 companies listed, it was found that company' leverage is positively related to the asset tangibility, profit, macro-economy and size whereas it is negatively related to firm-level profitability and non-tax debt shield.

Pratt (2011) asserts that market value to book ratio is determined after dividing market value of a firm's stock to its book value. The ratios equivalent to 1 show that a firm's net book value is achieved by the market as a good reflection on the firm's true value. Forgue (2012) says that market to book ratio is an indication of the premium which an investor pays for the net assets of a firm.

According to Mule (2015), market to book ratio is used to determine the premium that an investor pays for the assets of a firm. It is the ratio of market to the firm' assets as compared to the book value of the similar assets. A considerable positive relation between them reveals that firms having high B/P ratio possess high profitability levels as compared to the firms having low B/P ratio. Pandya (2015) employed the univariate linear regression and multiple regression analysis to test the association between measures of financial leverage and their market value added. This test was done for firms listed on Bombay Stock

Exchange. This research study reveals that the key predictor of market value added is the interest cover ratio.

In short, Modigliani and Miller (1958 and 1963) conclude an insignificant relationship between the financial leverage and the firm's value until and unless the firms are operate in a taxable environment where the tax payments may affect the capital structure. On the other hand, Weill, L. (2003) found a positive relationship between financial leverage and the corporate performance. Staking, K., and Babbel D. (1995) examine an increase franchise value of the firm at decreasing rate if the firm's leverage is increased at modest level. Abor, J. (2007) suggests that financial performance is affected by the capital structure but not extensively. Rajan and Zingales (1995) wrote that the profitability change shows a negative correlation with change in leverage if the dividend and investments remain fixed when main form of financing is debt financing in short run. The study aims at finding out a relationship of leverage and financial performance to support or reject the conclusions of above given opinions.

2.7. Control Variables

In a framework of modeling the leverage, there may be a variety of factors that may affect the leverage relationship with other variables. In literature, leverage or capital structure possesses an association with a variety of factors. Therefore, the management should not only regard target capital structure/leverage ratio but also indicate and analyze practical variables affecting leverage management. Some of the main determinants of

leverage, as concluded in earlier research studies, include growth rate/opportunity, tax, profitability, company's size, asset tangibility, ownership structure and pecking order theory. Some researchers explain growth, size, earning, volatility, asset structure, uniqueness and industry classification as the main determinants of capital structure. While some others stress on other factors describing capital structure choice by companies (Chittenden *et al.*, 1996; Coleman and Cole, 1999; Al-Sakran, 2001 and Davidsson et al. 2009).

The literary studies reveal some essential elements for designing a company's capital structure. According to Biddle et al. (1997), the main variable for examining stock return is cashflow that is greatly associated with company's size and its assets turnover. Furthermore, it is suggested that book value is essential if a company is older as asset turnover is used as a determinant for younger companies. For these companies, a low volume of investment is essential for achieving the required level of revenues.

Moreover, Gallizo and Salvador (2006) examine the value relevance of accounting variable by taking a large sample of 2,164 organizations listed on NYSE to study the evolution of firm's stock prices, particularly the effects of book value and cash flow. The researchers found out that asset turnover and firm size are value relevant by adopting hierarchal Bayesian analysis. Palliam (2006) & Farhan Malik et al. (2013) observe that performance measures such as investment returns, equity returns and earning per share has received great attention in contemporary research works. It supports the conclusions drawn out by Gravey and Millbourn (2000).

Furthermore, the external investors are hesitant in investing money in growth firms at low profitability level as Billett et al. (2007) examine that though growth opportunities directly influence leverage in a negative way, there exists a positive relation between leverage and growth opportunities due to covenant protection. Debt covenants lead to negative impact of growth opportunities on leverage after reducing agency costs of debt for higher growth companies. Later on, Do and Nhu (2009) analyzed that growth opportunities are positively associated with abnormal return arising out of announcement. Furthermore, the observation of the impact of highly levered firms with lower growth companies showed that they perform worst during announcement and seasoned equity issuance. The most common objective among business managers is identified as the sales growth (Steffens et al., 2009 and Hubbard and Bromiley, 1994). Therefore, growth is greatly emphasized as an indication of business success by policy makers, practitioners and researchers. In various industries, growth is regarded as the main benchmark of success.

In addition, High profitability also produces financial resources for a company by making it possible to achieve sound and sustainable growth with sacrificing profit. Davidson et al. (2009) stated that companies which grow at low profitability level are less likely to obtain high profitability due to their expansion.

Hence, the role of several factors affecting the leverage relationship with other variables may not be igno nred. The major factors[9] considered for the study in the context of leverage are discussed in literature as follows;

2.71. Firm Growth

The firm growth plays an important part to influence the value of firms and to capture a market reaction in leveraged firms. Several researches examine the relation between growth opportunities and capital structure preference of companies; however, they treat growth opportunities as a key determinant of a company's leverage or capital structure. In contrast, the real policy issue related to deciding if such a relationship is either positive or negative and how much strong or weak it is in a particular economy. Modigliani and Miller (1958) describe a positive relationship between growth opportunities and a company's debt preference in taking a capital structure decision. They stress that after the discovery of a main growth opportunity, a company's owner may not prefer to finance it using common stock at the then ruling price because it may not succeed in making the most out of a new venture. Companies may finance the venture initially with debt and then payback the debt by issuing equity at a greater price or via earned earnings once the venture becomes profitable by reflecting enhanced actual earnings.

The research study conducted by Myers (1977) analyze that companies having valuable growth opportunities do not issue risky debt but a company financed with risky

[9] firm growth, firm size, firm cash flows, corporate earnings and nature of industry

debt will pass up valuable investment opportunities making a positive net contribution to the market value of a company. Myers also demonstrates that the lenders of a firm do not receive any valuable security via growth opportunities because these opportunities are bound to perish naturally; thus, making equity option preferable as compared to financing a new growth opportunity. Myers (1977) continue to stress on this fact by concluding that companies having a high proportion of the market value accounted for by the growth opportunities have debt capacity. According to Myer and Mailuf (1984), when a company has higher growth opportunities, its firm value is also higher.

Furthermore, Auerbach (1985) states that leverage is indirectly associated with growth rate as the tax deductibility of interest payouts is less valuable for fast growing companies because these firms generally possess non-debt tax shields. The Pecking Order Theory reveals that profitable companies possess the cost of capital advantage as they have more internal cash flows as compared to growth-focused companies. A company's profitable growth is regarded as the touchstone of the resource-based view. Resource-based view (RBV) of a company's sufficient profitability level leads to its sound growth. Resource based view further states that companies create value and show a track of profitable growth if they adopt the growth opportunities matching their resource base. Higher company performance is generally related to a company's competitive advantage. A company may exploit new opportunities if it is well connected to external stakeholders providing access to it for additional resources (Wernerfelt, 1984). Inter-Relationship between initial profits, growth-focused companies and profit-focused companies reserve

financial capital for surviving and funding resources for development purpose (Starr and MacMillan, 1990 and Dean and Giglierano, 1990).

Barclay, Smith and Watts (1995) provide another insight that stock price must reveal intangible assets like growth opportunities; however, corporate balance sheets do not show them. It is understood that larger a firm's growth options relevant to its assets, higher on average is its market value with respect to its book value. Accordingly, a firm's market to book equity ratio is used as a proxy for its set of investment opportunity. A constant positive effect of growth on profitability has not been determined in research studies. Gartner (1997) concludes that fast growth slows down profit generation whereas Capon et al. (1990) claims that growth is constantly associated with higher financial performance of a company. Some researches show no relation between growth and profitability (Markman and Gartner, 2002) while others claim to have found a negative effect of growth on profitability (Reid, 1995).

Michaelas et al. (1999) continue to observe an alternate relation and state that future growth is positively associated with leverage and long-term debt whereas Chittenden et al. (1996) and Jordan et al. (1998) concluded mixed evidence. However, Mc-Laughlin et al. (1988), Gombola et al. (1998) and Smith &Watt (1992) observe that higher growth companies possess high information asymmetry; thus, they are more overvalued as compared to lower growth companies. A company's profit generation reduces because of excessive growth (Gartner, 1997; Aaker and Day, 1986). As stated by Jensen (1986), debt is a means to resolve this issue. For lower growth opportunities, agency costs of free

cashflow increases; therefore, debt must be issued in this regard. The overinvestment probability (wasting free cash flow on investments having negative NPVs) by top managers is lessened because companies use future free cash flow to pay out investors. Thus, it predicts a negative relation between growth opportunities and debt ratio.

Chen and Zhang (1998) analyze that the value premium among industries is related to the relative growth prospects of the market where a company operates. The authors examine that the value premium must be smaller for value companies operational in markets having stronger growth prospects as the chance of such companies undergoing financial distress is lessened if compared to the prospects of value companies operational in markets having restricted growth prospects. Previously, Titman and Wessels (1988) examine a negative empirical relationship between research, leverage and development expenses (R&D), where R&D expenses are usually used as a proxy for growth opportunities. Growth opportunities, in this research study, are regarded as capital assets for adding value to a company. However, they cannot be collateralized as they do not produce current taxable income. Thus, such growth opportunities may lower the debt level.

Some authors comment on the value loss for low growth companies. For instance, the information asymmetric model of Myer and Mailuf (1984), Ambarish et al. (1987) and Cooney and Kalay (1993) and the free cash flow theory of Jensen (1986) suggest that companies having high growth opportunities undergo lesser value loss as compared to the companies having low growth opportunities during the announcement of equity issuance. Dierken (1991), Pilotte (1992), Denis (1994) and Burton et al. (2001) reveal a positive

relationship between market reaction to the announcement of equity issuance and several proxies of growth opportunities. Griffin and Lemmon (2002) and Dichev (1998) assert that investors consciously overprice companies having higher bankruptcy risk. A profitable company holds the potential of capturing external resources of capital by investing from retained earnings (Rajan and Zingales, 1998). Pandey (2001) confirms that companies having fast growth in sales frequently need to expand their fixed assets. Higher growth companies[10] feel greater future need for funds and try to maintain more earnings. This increase in retained earnings of higher growth companies is related to issuance of more debt in order to regulate target debt ratio (derived from trade-off theory). Hence, a positive relation is expected between debt ratio and growth on the basis of this argument. Adopting Pecking Order Theory, a similar relation asserting that growth causes companies to shift financing from new equity to debt is derived because more funds are required for reducing agency problem. Daniel, Hirshleifer, and Subrahmanyam (2001) formulate a model in which the value effect is stronger for the stocks having a high proportion of intangible assets because these companies are hard to value. Chan, Lakonishok and Sougiannis (2001) provide an evidence in adherence to such model.

Pandey (2001) and Chen and Zhao (2006) find a positive relation between value effect and the leveraged stocks as with a high proportion of intangible assets[11]. On the contrary, Bevan and Danbolt (2002) consider growth opportunities as highly intangible offering extremely limited liquidation or collateral value; therefore, they cause a low level

[10] The companies which consider sales growth as proxy for growth opportunities
[11] A proxy to determine growth

of debt financing. Growth companies having lower profit levels are less prone to develop resource advantages as compared to companies having higher profits. Growth companies stay incapable of creating a superior value for their customers because of their incompetence for the development of a resource advantage at low profitability level. In order to develop the business operations, the growing companies need to bring a decline in their product pricing by adopting costly marketing strategies for competing in the market. A constant positive effect of growth on profitability is not found in the research studies.in 2002, some research work produced by Markman and Gartner have revealed absence of a relationship between the growth and the firm's profitability while others show a negative effect of growth on profitability (Reid, 1995). On the contrary, recent studies reveal that growth doesn't act as the predecessor of profitability; therefore, fast growth can gravely stall a company's profit generation (Gartner, 1997).

Goyal et al. (2002) state that when growth opportunities of companies reduce, they enhance their usage of debt financing. Hence, the authors establish a negative relationship between growth and debt level in a company's capital structure. Further, the author states the reasons for such negative relationship. For instance, the growth companies having lower level of profits are less likely for establishing resource advantage as compared to companies having higher profits. Growth companies fail to create superior value for their clients as they are unable to build a resource benefit at low profitability levels. For expanding their business operations, growth companies bring a decline in their prices or adopt costly marketing strategies for competing in the market. For creating more value than

their customers, companies either create great advantages for the similar cost or similar benefits on a low cost.

The above approach of a company adheres to the efficiency view of Resource-Based Theory (Peteraf and Barney, 2003). On the other hand, due to this strategy, a smaller company may not grow at an above average rate (Mishina et al., 2004) because they are generally limited by internal financing resources making it difficult for them to increase their products at low level of profitability (Carpenter and Petersen, 2002). Sporleder and Moss (2004) state that it is essential for top management for decision making based on capital and growth opportunities as it affects company's cashflow and financing decision. Conclusions reveal that leverage is negatively associated with growth and non-debt tax shields whereas size and profitability of a firm are positively associated with its leverage.

Further, Padron et al. (2005) found the financial leverage to be influenced by all the factors inclusive of the firm size, its resources, warrant level, the cost of funding debt, and the opportunities for growth except the reputation of the firm. Growth is imminent for companies; however, pursuing it on long-term may not always prove to be a source of value addition to a company (Chathoth and Olsen, 2007). In contrast, recent studies reveal that growth does not result in profitability (Markman and Gartner, 2002 and Chathoth and Olsen, 2007).

The researchers conclude that the value effect is less pronounced in the sample of higher growth states related to the impact upon mature markets. They also state that these results adhere to the view that there exists less dispersion in the risk of companies in market

which are undergoing significant fast growth. Hence, in growth markets, companies with higher book equity and market equity are less prone to remain financially distressed. The market-to-book asset value is most commonly used to predict growth as various authors argue it to be reliable (for example, Adam and Goyal, 2008).

Davidson et al. (2009) stressed in his research study as compared to growth-focused companies, profit-focused companies are in a good position to maintain profitable growth in the future. Organizations which focus on profits are more prone to achieve a status of higher growth and higher profit as compared to growth focused companies. Using pecking order arguments, growing companies place a greater demand on the internally produced funds. As a result, companies having higher growth tend to look for external funds for financing their growth. Companies, thus, look for short term and less secured debt as compared to long-term and more secured debt to finance their needs.

In 2011, Jang provides that the firms, follow the growth oriented or profit oriented strategies for obtaining profitable growth. According to a general belief, the growth draws profit cart. Zhou et al. (2013) assess the performance of 105,260 companies during 2002-2011 in areas of Brazil, Russia, India and China (BRIC). During the past two-three decades, several companies within emerging markets arise after economic liberalization. In this research study, various trajectories were analyzed and conclusions were drawn from the experiences of 70 reliable high-performing companies. These conclusions reveal that profit-oriented strategy is very effective for achieving sustainable and profitable growth in growing markets. It was found by the previous study that sustainable and profitable growth

requires competence-based and competence enhancing growth, constant product diversification and quality sales growth (also known as organic growth).

Iqbal, Hameed and Ramazan (2012) state that firm growth is coupled with debt portion of a firm in a positive way so the firms with higher leverage reduce their debt portion to enhance their assets for maintaining the growth in markets. Market-to-book ratio is utilized for this research which contains firm's stock price. When debt portion enhances, the negative effect does not essentially come on price; thus, it focuses more on leverage when they move to enhance their debt. In this regard, firms must keep minimum weightage of debt by monitoring their capital structure. As a result, companies remain on track. Governments should play necessary role for saving investors by setting up the debt limit in capital structure.

A company's growth is analyzed with its debt; thereby, concluding that it is an essential factor in a firm's success; however, other factors may also be measured with a company's debt capacity. The relation between two variables is discussed focusing on future researches where specific portion of debt capacity is used by the firms for keeping them on track. Various previous research studies established a negative relationship between growth options and book leverage. For instance, Rajan and Zingales (1995) determine the presence of negative relationship between book leverage and market to book ratio (commonly used proxy for growth options) in seven states including USA.

On the contrary, Famaand French (2002) found out that these procedures understate standard errors. Similarly, Barclay, Morellec and Smith (2003) provided a direct test

hypothesis for documenting the robustness of the previous results. They established the empirical relationship between book leverage and growth options. They primarily focus on the market to book ratio as a proxy for growth options. Their conclusions indicate the presence of negative relationship between book leverage and growth options. Financial leverage, tangible assets, profitability and liquidity are the key attributes where market estimators (market to book ratio and Q ratio) diverge to classify companies into market outperformers and underperformers (Eltayeb, 2011). On the contrary, company size, research and development expenses and free cashflow reveal no variation in the market estimators. In his research study of Japanese companies listed at Tokyo Stock Exchange, Eltayeb (2011) determine that market to book ratio is more sensitive to market level aspects. In adherence to Baker and Wurgler (2002), the researcher stated that market to book ratio is recommended on the basis of under market timing hypothesis owing to its reliance on the market factor.

2.72. Corporate Earnings

The corporate earnings infers the income earned by the companiesduring the accounting period from its business operations. Scwartz (1959) and Fama and French (1992) refer to the shareholders returns as the stock returns over the risk-free rate. The corporate earnings may be maximized by getting the tax benefit from increased leverage. Previously, Modigliani & Miller (1963) confirmed that the major advantage of debt lies in its tax benefit due to the deduction of interest whereas Miller (1977) provides that the primary costs refer to those costs related to the financial distress and the personal tax

expense bondholders incur after receiving their interest. Later on, Byoun (2013) also illustrated that the firms with small debt free ratios are less profitable as compared to the firms with large debt free ratios after segmenting the given sample into smaller and larger debt free companies.

Profit generation of a company reduces because of swift growth (Aaker and Day, 1986; Gartner, 1997). The Pecking Order Theory also states that profitable companies possess the cost of capital advantage because they can maintain more internal cash flows as compared to growth-focused companies. A profitable company possesses the potential for capturing external resources of capital; thus, investing from retained earnings (Rajan and Zingales, 1998). To sustain this competitive advantage, various companies' resources have been specified. These resources must be valuable, inimitable, rare and organized (Barney, 1991 and Barney, 1997). Hence, these companies having higher growth and lower profits face financial restrictions making it difficult for them to sustain their growth (Churchill and Mullins, 2001). According to Abor (2005), debt ratio (short-term) to total assets and equity return reveal a positive relation. On the contrary, there is found a negative relation between long-term debt and equity return. A considerable positive relation exists in case of total debt when its ratio is compared to the equity return.

Theories of First Mover Advantages (FMAs) provided by Lieberman and Montgomery (1988), network externalities (Katz and Shapiro, 1985), experience effects (Stern and Stalk, 1998) and scale economies (Besanko et al., 2004) assert that profitability is obtained via growth either by establishing strong market position or by lowering cost.

Profitable companies possess financial resources for investing in developing products and strategies which are valuable to obtain sustained benefit and higher profitability (Sirmon et al., 2007 and Zahra et al., 2006).

Profit-focused companies become more profitable because they hold the competitive advantage since these companies can produce a product or a service having significant value above cost (Amit and Zott, 2001). Profitable companies, on the other hand, possess financial resources for investing in developing products and therefore, are valuable for achieving sustained advantage and higher profitability (Zahra et al., 2006 and Sirmon et al., 2007)

A research study conducted by Davidson et al. (2009) asserted that in comparison to growth-focused companies, profit-focused companies are in better position to reach profitable growth in future. Companies focusing on profit are more prone to achieve higher growth and higher profit as compared to growth-focused companies.

Gloria (1974) examines the association between leverage, market structure, risk and profitability by collecting and analyzing the data from 228 manufacturing firms in the USA. She concluded that the main difference of profit margin between firms is due to their market structure. The researcher also established that the firms having high market power prefer lower risk while keeping conservative capital structure. According to Scott (1976), the leverage of every period remains same if the earnings of the company are allocated independently and identically. Barnea, Haugen and Talmo (1987) declare that company's

tax benefits are hurt when it has sufficient earning. Similarly, Raymar (1991) determines that leverage enhances with the ratio of operating earnings to their value.

Risk is regarded as an essential imperative of companies operating in the industry since constant earnings depend upon the total cost affected by the output variability (Baker, n.d). It also calculates firm's financial leverage. The output varies because of the nature of company's operating environment. In another study by Hamada (1972), the relation between equity cost and leverage of companies across industries was established. More differences were found out in the companies utilizing leverage as compared to those preferring unlevered capital structure. The research conducted by Hall and Weiss (1967) established the occurrence of considerable relation between greater equity/debt ratio to profitability. It also determined the influence of reduced risk on the increased profitability rate. When two companies are earning the same rate of return on total capital employed, the firm with the larger debt ratio in its capitalization will earn a higher rate of return on equity. A greater rate of return on equity should produce in turn a rapid earnings growth, dividends and higher common stock valuation. Consequently, the return on equity, dividend growth, earnings growth and the market valuation of common stock are directly tied to leverage particularly in the theory. The returns on equity may vary increasingly with debt usage (Modigliani and Miller, 1969).

Haugen and Senbet (1998) find out that the future value of a company is lessened by the implication of lesser future debt. They also state that the default actions, as the limitations to the model's leverage, and the default exists usually because of depressed

value of a company. In order to determine the optimal level, sensitivity company's earnings are essential to consider. Therefore, the stable companies with lower sensitivity of their earnings are exposed to higher earning risk and are greatly levered. If the companies have heterogenous earning process, the relation between the company's business risk and the debt usage may not be considered by using simple measures of earnings variability. It gives an inference to increase the profit margin after taxes because of low interest rates; thus, high earnings result in higher EPS or dividend payout ratio increasing the company's performance. In case, the marginal earnings for the firm's growth are retained due to low interest rates and tax shields, it may lead to the maximizing the firm's value on long term basis and may result in achieving the wealth maximization objective for which the owners invest in the firm. Moreover, the research paper reveals the relations between a company's capital structure and its industry category, income's variability and operating leverage. It relates the company's attributes to the leverage class highlighting that the industry class is associated with the company's leverage but in a less noticeable way while the variation in income is not related to the company's leverage.

Olson (1994) determined the relation between the price earnings ratio and the price to book ratio finding out that an additional rate of return is obtained by the firm showing higher performance. Jahankhani and Sajadi (1995) describe the growth in earnings, paid dividends, asset return, equity return and Tobin Q ratio as the most significant accounting criteria of a firm's performance evaluation. As stated by Mohammad Nishat (2000), the greatly leveraged firms in Pakistan have strong negative relationship between return and

volatility change as compared to the lesser leverage companies. He further suggests that leverage at firm's level is historically higher in the country. To maximize company's value, it is essential for every financing decision to be made by the top managers of the firm if it enhances its debt capacity. If not done so, it will enhance the risk factor by failing to obtain proper return expected by the firm. As a result, it becomes risky for the firm to suffer big loss in case it fails to pay back its debt leading to its liquidation or bankruptcy. The primary responsibility of the top managers is to manage their firms in the way that returns to shareholders are maximum; thus, enhancing the profit figures and Cash flows (Elliot, 2002). Abbas, Qaisar and Rashid (2011) assert that several firms were bankrupted during 1996-2006 in Pakistan due to financial distress.

It is noted that the external investors are hesitant to invest their money in growth firms having low profitability rates. As a result, the companies with higher growth and lower profit rate undergo financial constraints as it becomes difficult for such firms to maintain their growth levels (Churchill and Mullins, 2001).

The market-to-book ratio and profitability are the main sources from where costly external financing theory draws inspiration for interpreting capital structure decision. This theory states that companies having high market-to-book ratio are more prone to issuing equity as high market-to-book ratio shows a low cost of external equity financing. This market-to-book ratio view serves as the basis for a comprehensive debate of the market timing hypothesis (Baker and Wurgler, 2002). Welch (2004) examines that driving force of leverage ratio is related to its market valuation of equity. Companies do not impose

countermeasures for offsetting alterations in the leverage ratios which stem from variations in market valuation. While resorting to external financing, companies having favorable equity market valuation are more prone to issuing equity by deviating away from their original leverage ratio. It adheres to the fact that firms prefer external financing cost as compared to their target leverage ratio. Moreover, companies having high profitability actively (instead of passively) go for internal instead of external funds for avoiding the external financing cost resulting in a negative relation between profitability and leverage ratio.

Moreover, the levered and unlevered profitability possesses a negative mean leverage impact with a trivial positive median leverage impact. The two divisions of the operating liability leverage impact including the operating liability leverage and the operating liability leverage spread hold a positive relation determined by the positive correlation between operating liability leverage and return on operating assets such as levered profitability. On the contrary, a positive relationship is found between the two types of financial leverage impact. It is larger at the median and mean. Due to this positive relation between financial leverage and borrowing rate, Pearson correlation is found to be negative and insignificant between financial leverage and financial spread. The reason behind this positive relation between financial leverage and borrowing rate is that high risk results in interest rate charged by creditors to increase. Generally, profitable companies possess lower financial leverage levels (Nissim & Penman, 2003).

Nissim and Penman, (2003) continue to argue, since price to book ratio is based on expectations of the future ROCE[12], it must also be associated with operating liabilities. These researchers have also examined the implications of operating liabilities for price to book ratio by reducing it to a certain level and by altering operating liability leverage and further by decomposing this level and alteration into leverage from contractual and determined liabilities. Owing to the prescription of residual income model, price to book ratio is not only based on expected profitability but also on equity capital cost and expected book value growth. Hence, the impact of operating liabilities upon expected profitability (as revealed in price to book ratio) is determined by including controls for expected growth and risk (determining the cost of equity capital). Such research study concludes three findings including the distinguishing operating liability leverage from financial leverage establishes cross sectional variations in future book rates of returns and price to book ratio after the control of information in total leverage and current book return rate as the first finding. The second finding states that the current alterations in operating liability leverage add to its explanatory power while the third explains that distinguishing operating liabilities from contractual operating liabilities differentiates future return rates and price to book ratio.

Whiting and Gilkison (2000) assert that the profitability of dividend cuts diminishes if the short-term debt level and total leverage increases. They also state that the asset level and dividend cut is more aggressive as a result of poorly operating companies having

[12] ROCE refers to 'Return on capital employed'

higher leverage levels instead of low leverage levels showing that when the company becomes unable to payout its dividends from the profit, it may pay its owners their dividends via increasing leverage which may lead to attractive investment opportunities for potential investors. However, the company's performance does matter because it is essential for sustainability and survival of companies exhibiting poor performance.

Bernanke and Gertler (2005) determine that the monetary policy creators utilize their leverage for short-time interest rates for influencing the capital cost and expenditure cost on fixed investments. The researchers further state that credit channel refers to the set of factors increasing and spreading traditional interest rate impacts. The direct impact of monetary policy upon interest rate is improved by endogenous variation in the external finance premium. Louis T. W Cheng and W. N. Davidson describe that the market response for debt announcement is affected by company's growth and development because the companies having higher growth potential may select higher financial leverage levels. Its reason is that these companies earn significantly to finance or cover up their marginal interest expenses. The higher financial leverage levels may make the lower growth companies having low earnings riskier because their earnings are not enough for financing the enhanced fixed interest owing to increased leverage.

Abor, J. (2007) stresses that financial performance is impacted upon by the capital structure though not significantly. He further reveals that long-term debt and total debt ratios along with capital structure have negative impact upon the SME's performance.

These conclusions may lead to the fact that agency issues in Small and medium scale enterprises persuade them to adopt high debt policy resulting in their inferior performance.

Ezeoha (2008) examines that the entire financing of the company comprises of 91.4 percent short-term obligations while only 8.6 percent long-term liabilities. The pecking order theory has far reaching impact upon the financing pattern of the Nigerian companies if some variables are kept constant. This study further elaborates a significant negative relation between profitability and financial leverage whereas the company's age is positively related to financial leverage. Tarek Ebrahim (2009) emphasized the relationship between ratio of the market to book value of shares including the price to book ratio and financial variables such as equity return. The conclusion reveals a reflection of price to book ratio on equity return. Mule (2015) determines that firm's leverage is accounted for by market value to book ratio. There exists a significant negative relation between leverage and market to book ratio of a company. The relation between leverage and the two controlled variables including profitability and non-debt tax shield is found to be negative.

Therefore, the above discussion reveals that the corporate earnings or the profitability demonstrates a considerable relationship with leverage.

2.73. Firm Cash flow

The cash flows of the company may play a vital role in making the financing decisions for the company. The firm cash flows are useful to determine the liquidity position of the business. The adequacy of a firm cash flows provides a soundness to the

company to repay its debt. Debt financing generally restricts the free cash flow available to the managers; thereby, helping them to control the agency problem (Jensen and Meckling, 1976). According to Modigliani and Miller (1963), the costs related to issuing more debt than usual are actually the costs of financial distress along with the agency costs associated with conflicts between shareholders and the debtors (Jensen and Meckling, 1976). The costs of financial distress arise when a company utilizes its excessive debt becoming unable to pay the interest and principal payments.

The trade-off theory of capital structure states that companies select their debt and equity financing for balancing their costs and benefits of debt. For this reason, the tax shield from firm's debt and regulation of free cash flow issues persuade companies to use more debt financing. On the other hand, bankruptcy costs and other agency issues provide companies with incentives to utilize less.

As per the debt monitoring theories, maximizing the cash flows and finding out the new projects with positive Net Present Value is a tough task for the managers. The financial slack helps the firms' managers to choose the positive net present value projects as they have more information about the assets value and investment opportunities. If there is an access to the risk free loan market or the financial slack does not exists, the projects with positive NPV may be overlooked by the firms (Myers and Majluf, 1984). Hence, it is inferred that leverage is indirectly contributing towards increasing the firm value.

Gibbs (1993) is of the view that the investment opportunities and initial financing leverage are not related to each other; therefore, the free cash flows divert themselves to

the smaller financial leverage. These returns in turn reduce proportionally to the decreased risk of company if the managers choose to finance the lower profitable projects ignoring the risks of the capital market. On the contrary, Jensen provides in 1986 that the major indication of free cash flows is lesser financial leverage.

Meyers (1984) theory of pecking order states that the companies either enhance or decrease their debt ratio in case they suffer from a negative free cash flow or positive free cash flow respectively during the current period. One of the main things that can be observed in this regard is a different financing behavior of the companies having relatively more debt as compared to the companies having relatively lower debt rate.

Jensen (1986) predicts that the firms which overinvest usually have higher levels of cash flows. As noted previously, debt benefits these firms due to their disciplining properties. As a result of bankruptcy costs related to leverage, underinvesting firms having lesser cash cannot enjoy these benefits. The more cash a firm has; the more it will overinvest; thus, entailing the issuance of debt and making the relationship between financial leverage and free cash flow positive. Furthermore, Jensen (1986) defines free cash flow as the money left after the company has invested in all projects with a positive NPV by stating that the calculation of the free cash flow of a company is difficult because it is impossible to identify the exact number of possible investments done by a company.

Jensen (1989) further argues that if the firm having low debt does not make the fixed payment of debt, it may have several impacts for the company's control when compared to the company operating at higher levels of debt to meet fixed obligations. In

the first case, the firms with low debts are likely to liquidate as compared to the high debt companies because they may restructure themselves in case they have closely held obligations of debt. In this regard, the management of these companies may ask for more debts committing the repayments from their future Cash flows; however, they may lose their reputation at times becoming unattractive for the present and potential investors. These research studies reveal that if the company's risk is increased by leverage, it may result in liquidation or takeovers. Hence, it can be stated that the company may require enough profitability for servicing the debts. According to Campbell and Whited (1990), the restructuring activity of the 1980 had also a far-reaching effect on the cross-sectional distribution of leverage.

Pinegar and Wilbricht (1989) found out that the problem of principal-agent can be resolved via the capital structure by enhancing the debt level without creating any primary increase in the agency costs. In the same way, Lubatkin and Chatterjee (1994) suggest that by enhancing the debt to equity ratio, the companies ascertain that their managers are running the firms efficiently. Therefore, the managers will return the surplus cash flow to the shareholders instead of investing it in negative NPV projects as the managers will first have to make sure that the debt obligations of the company are repaid. As a result, the managers who are unable to meet the required debt obligations are replaced by those who can more efficiently serve the shareholders. Elliot (2002) further explains that the primary responsibility of top managers is to manage their firm in such a way that returns to shareholders are maximum with an increase in the profit figures and Cash flows. The major

issue faced by the shareholders is to ascertain that the managers do not utilize the free cash flow by investing in negative or unprofitable net present value (NPV) projects.

The research study conducted by Dasgupta and Sengupta (2002) highlights that it depends on the nature of improvement in growth opportunities that firm enhances or decreases its current leverage. They also examine that companies having good future investment opportunity invest more to preserve their debt capacity and financial slack or liquidity by maintaining lower leverage. In this way, companies may protect themselves against constraints in future and may use equity financing to possess more cash for future or pay down debt. It was also analyzed that disciplining effect of good investment opportunity in future enhances during the use of debt.

Connie (2003) emphasizes that with the increase in project cash flow, the companies tend to shift their risk from equity holders to debt holders. As a result, the company enters into the problem of underinvestment. He also states that there exists no relation between the increasing leverage and the cost of capital. However, there is present a unique relation between the optimal debt and the marginal volatility of investment which illustrates the alterations of cash flows impacting upon the investment scale for high growth firms. When market value of investment is positive, the level of debt is enhanced and if debt level decreases when MVI is negative. However, in case of low growth companies, debt level is declined when Market Value of Investment (MVI) is positive or negative. It concludes that in high growth companies, a positive relationship exists between leverage and MVI (Market Value of Investment) and in low growth companies, a negative relation

exists. Later on, Byoun (2006) estimates that large debt-free companies are more profitable as they possess more growth options and have more cash in them. Dorff (2007) stressed that the pay of the managers increase with an increase in the company's turnover.

Devos*et al.* (2010) find out reasonable explanations as to why companies choose the extremely conservative leverage policy (with no debt for the three consecutive years). The results drawn provided mixed support for the financial flexibility hypothesis in the debt-free companies stating that these firms carry relatively more cash and initiate debt whenever an investment opportunity materializes. The researchers also study that the lack of reputation of the zero-debt companies in the credit markets is the main factor due to which they remain unlevered.

Hence, the firm cash flow makes a direct or indirect relationship with debt financing or leverage.

2.74. Firm Size

The firm size is studied by various authors in literature that may affect the leverage relationship with other variables. It is a general opinion that larger firms are more diversified because they are easily accessible to the capital markets. Such kinds of firms also enjoy the facility of higher credit ratings for issuing their debts while simultaneously paying a low interest rate on the borrowed capital. Various research studies show that the leverage is positively related to the assets of the firm. It adheres to Myers' (1977) stance that tangible assets, including fixed assets, significantly contribute to supporting a higher debt level in comparison to the intangible assets like growth opportunities. Ferri and Jones

(1979) has observed the connection between size of the firm and leverage as it is a general perception that larger firms may be more diversified as they take the benefit of an easy access to the capital markets. Such firms also enjoy higher credit ratings for the issuance of their debt while paying a lower rate of interest on borrowed capital.

Chandra (1978) observed that size and growth has a positive impact on market prices. On the other hand, leverage and risk do not show any influence on the share price. Contrary to this opinion, Ferri and Jones (1979) have examined the association between size of the firm and its leverage. Size of the firm plays a vital role in determining its capital structure. Several researchers are of the view that huge firms are less prone to bankruptcy as they are more diversified as compared to smaller firms (Smith and Warner, 1979 and Ang and McConnel, 1982).

In accordance with the capital structure of trade-off models, large companies should employ more debt as compared to the smaller ones. Berryman (1982) states that investing in small business is generally riskier due to the presence of a strong negative correlation between the size of the firm and the probability of insolvency.

According to Marsh (1982) and Titman and Wessels (1988), there lies a negative relationship between debt ratios and the size of the firm. Marsh (1982) also stresses on the fact that smaller firms greatly rely on loans to fulfill their funding requirements because they have limited access to equity capital market. Similarly, Titman and Wessel (1988) suggest that smaller companies rely lesser on the equity capital market due to their higher

per unit issue cost. Hence, the relationship between firm size and debt ratio is an issue which requires empirical investigation.

Williamson (1988) and Harris (1994) argue that assets of the firm can be redeployed at a close level to their intrinsic values as they are generally less specific. These assets can be further utilized to pledge as collateral for reducing the potential agency cost related to debt usage. In this regard, Smith and Warner (1979), Stulz and Johnson (1985), Feri and Jones (1979), Marsh (1982), Long and Matiliz (1985) and Allen (1995) have provided significant empirical evidence to suggest a positive relation between debt and fixed assets.

Hall (1995) concludes that the positive relationship between debt and fixed assets is either due to the limited portfolio management skills or because of the attitude of lenders.

Another authors' verdict does not provide a great support to the previous ones in his comments. The profitability change shows a negative correlation with change in leverage if the dividend and investments remain fixed when main form of financing is debt financing in short run. They noted that the large firms are inclined to issue less equity and the increase in firm's size may bring a strapping negative impact of profitability on leverage. If the investment opportunities are provided to the smaller firms, they may enhance their equity base by greater equity issues and the correlation of profitability and leverage may reduce (Rajan & Zingales, 1995).

The empirical evidence gathered from the research studies confirm the presence of a positive relationship consistent with theoretical frameworks of asset structure and

leverage for large companies (see Van der Wijst and Thurik, 1993; Chittenden et al., 1996 and Michaelas et al., 1999). It is observed that larger firms generate more profit as compared to the smaller ones because they have easier access to recent technological advancements, have diversified businesses and can easily obtain debt at low interest rates. Various research scholars confirm that organization performance is affected by its size. A significant and positive relationship has been established between firm performance and its size in renowned Indian companies (Sarkaria and Shergill, 1999).

Chui, Lloyd and Kwok (2002) have suggested that the most significant relation is to be observed between capital structure and company size along with its profitability. In contrast, Titman and Wessels (1988) determine that the relationship between size and profitability in relation to various measurements of leverage is inconclusive requiring further empirical investigation.

As stated by Peteraf and Barney (2003), the relation between size and profitability is inconclusive on the basis of the efficiency view of Resource-Based theory. On the contrary, Mishina et al. (2004) observe that a small company cannot grow at an above average rate on the basis of this strategy because this type of company is generally restricted by the internal financing sources making it difficult for the firm to enhance its product growth at low profitability rates (Casser and Holmes (2003) and Hall et al (2004) determined a direct relation between a company's size and long-term debt ratio along with an indirect relation between company's size and short-term debt ratio.

According to some research studies, all the variables such as the size of the firm, its generated resources, the level of warrants, cost of the debt and growth opportunities are influential for the company's leverage. In this regard, 'fixed effects approach' is followed by the authors to analyze the sample behavior for which certain attributes of the company are kept constant in the given time frame (Padron et al., 2005).

Suhaila et al. (2008) observe the determinants of the capital structure using debt ratio as dependent variable with various other independent variables including interest coverage, size, growth and liquidity ratios of the firm. Sales is used as a size variable which is found to be negatively associated with debt ratio. It reveals that the companies larger in size are not dependent on leverage financing or other resources whereas smaller firms depend on them. These research findings further suggest that large organizations easily gather equity financing while using retained earnings in their capital structure.

According to Gungoraydinoglu and Oztekin (2011), liquidity, tangibility and size of the firm explain around 63% of the variation in the leverage. This research study is affirms the results of Rajan and Zingales (1995) and Frank and Goyal (2009).

Various trade-off and pecking order theoretical approaches suggest that the larger firms tend to show low bankruptcy risks and costs. As a result, firms with large size benefit have higher levels of leverage because of stability in their cash flows. Due to the scale economies, bigger firms have lower debt cost as compared to the smaller companies. Similarly, the firm size is positively associated with the leverage (Deesomask et al., 2004;

Fama and French, 2002 and Gungoraydinoglu and Oztekin, 2011). Hence, it concludes that the leverage is also positively related to the size of the company.

Bitok et al., (2011) observed the determinants of leverage at Nairobi Securities Exchange, Kenya. In his research study, all 54 companies listed in Nairobi Securities Exchange were included; however, their financial terms and utilities were not included as these firms were highly regulated and their leverage levels were greatly influenced by regulation. This research study included three leading theories of capital structure including static trade-off theory, pecking order theory and agency cost theory. It was concluded that static trade-off theory, suggesting the existence of optimal capital structure and a trade-off between net tax benefit of debt financing and bankruptcy cost, gives the most reliable description of leverage for Kenyan companies during the period 2003-2008. It was also studied that companies having more tangible assets[13] provide collateral for debt; thus, raising more debt. Moreover, larger and more profitable companies maintain higher debt ratio whereas companies having high growth rate utilize lesser debt financing. In short, the conclusion was that a company's leverage is positively related to asset tangibility, profit, size and macro-economy while negatively related to company-level profitability and non-tax debt shield.

Acheampong et al. (2014) stated that the relation between size and stock return is considerably positive whereas size effect is restricted within the manufacturing sector. Arslan (2014) observes that size of a company and price earnings ratio show considerable

[13] A proxy if firm size

positive effect on stock price suggesting that investors can utilize investment criteria which engages a company's size and its price earnings ratio abnormalities to earn an abnormal return rate.

2.75. Nature of Industry

The firm leverage may differ from industry to industry. Various sector companies employs different level of leverage and may get different stock market response. As a results, the value derived out of leverage may differ from sector to sector depending upon the nature of business. Therefore, the nature of industry may influence the leverage relationship with other variables. The literature also suggest that the value of a company may be increased or decreased in order to lead it toward or far away from the industry averages by making certain changes in the debt level. In this regard, several authors determined the leverage ratio based on equity market values and the book values; however, their calculations remain the same. For instance, Hatfield, et al., (1994) establish an existence of a significant relationship in the market when the debt level of the company and the company' industry was taken into account. This research study confirms that the market is not very concerned about the relation between the company's debt level and its industry. Schwartz & Aronson (1967) and Scott (1972) discover that the financial leverage ratios remain similar within industries and persistent differences exist across various industries. This proposes that the average debt to equity ratio for an industry is a unique norm or benchmark for the firms within that industry.

Hatfield, Cheng and Davidson (1994) stress in their research study on the companies from similar industries having higher debt and lower debt ratios that in these firms, the perception of market decision of giving finances after comparing company's leverage ratio with the industry average is proved to have the reverse effects.

Haugen and Senbet (1998) linked the firm's characteristics with the leverage class and found that the industry class is associated to the firm's leverage but in a less noticeable behavior. Fama and French (1997); Cohen and Polk (1998) reveal that factor risk loading on the book value of equity to market value of equity factor differ significantly across industries motivating the evaluation of value effect among industries. They also assert that the sensitivity of industry related to the Book Equity/Market Equity factor shows considerable variation with time.

A research study, utilizing the approach of spontaneous equation, revealed that leverage inversely calculated by equity to asset ratio reveals a negative relation (Baker, 1973). Ferri and Jones (1979) tested the hypothesis which suggests that the perfectly random relationship between generic industry and the leverage class. The hypothesis could not be rejected in 1974, but these authors rejected such hypothesis. An industry examination of the value effect is also motivated by Chen and Zhang (1998), since the researchers reveal that the prominence of the value effect differs from state to state.

A study suggests that international firms employ higher level of total debts than that of domestic firms in Turkey. For the sample taken from German and UK firms, not a significant proof was found in the favor of above results. International firms of Turkey use

to increase their debts at a fixed rate despite of industry, firm specific factors and controlling shareholders as factors affecting the firm (Gonenc, 2005).

MacKay and Phillips (2005) carried out a research which states that some industries have high natural hedge. Such firms normally use low financial leverage. Their capital-labor ratios are close to the industry median than firms with low natural hedge standing apart from the industry median capital-labor ratio. Furthermore, they suggest that an inverse relationship exists between the changes made by other firms operating within the same industry and cash-flow volatility, capital-intensity, and changes made in a firm's financial leverage. The reason being is the dispersion of real and financial variables in more competitive industries.

Banko et al. (2006) observe the role played by industry affiliation in the value effect. Their results show that after controlling other relevant factors, both inter and intra industry variation in book-to-market equity explain stock returns. Evidence suggests that intra-industry variation in Book equity/Market equity is the most essential attribute out of the two. It further indicates that research studies which use industry data tend to understate the importance of the value effect as significant effect is related to company level variations in Book equity/Market equity.

The highly levered firm operating in as low debt industry may face an intensive impact of diminishing demand as compared to a firm operating in a high debt industry. Total debt of the firm has a significant positive influence on sales. High leverage can lead the firms to market share losses if the market demand decreases in an industry. In the

industries having low levered players in competition, sales could boost up by using high level of debts. The demand decline in such industries may result in more obvious market share losses, if switching costs for consumers are higher and less efficient asset liquidation. Leverage has got an insignificant positive impact in high debt industries while in recession periods; total leverage has an insignificant negative impact on firms operating in low debt industries (Campello & Fluck, 2006).

Madan, (2007) found out that firms having highest ROE in industry generate higher scores in recent ROE. Considerable information for the entire firm's status can be obtained if the market capitalization outcome and the market price is combined with ROE. Ali (2011) in his paper further elaborated the concept of Shah and khan (2007) and analyzed some more variables which determined the gearing or leverage of some non-financial firms registered in Karachi stock exchange now called Pakistan Stock Exchange and found a significant relationship between Profitability, Size, Tangibility, Growth, Dividend and Inflation. The author also found out a difference in the combination of financing mix of firms across industries. By comparing results from Pakistani companies with other companies of the world the results showed country specific factors which effect leverage.

Awan, Rashid and Rehman (2011), however in their paper analyzed the determination of capital structure with respect to one of the most important and dynamic industry of Pakistan which is the Sugar and Allied industries. The results showed that that every industry has got its definite and unique characteristic which is different from other industry and hence the results of the combined industry cannot be judged as that of the

specific industry. The researchers took thirty-three industries from Pakistan and analyzed the penal data in pooled regression by choosing four variables which were Size, Tangibility of Assets, Growth and Profitability. The results showed a slightly positive and significant impact of Tangibility and Profitability on Leverage‖ of Sugar industry in Pakistan.

In addition, Javid and Imad (2012) in their study investigated the different factors and variables which determine the short-term debts and long-term debts and also determine their categories in the case of nonfinancial listed firms in Pakistan and found that there was lethargy effect and industry specific effect, and are forceful to alternative estimated technique.

Hence, the nature of industry seems to play a visible role in determining the relationship of leverage with other variables.

2.8. Relationship of Leverage with research variables; A Brief Summary

Modigliani-Miller (1958) argue that the firm value is independent of capital structure. As the debt increases the risk of stocks and ultimately that of equity holders, the return on equity is considered as the increasing function of leverage as the shareholders, real risk bearers will ask for greater return for increased risk.

Arditti (1967) indicates that the returns can be classified as the geometric mean of returns. The author observes an insignificantly negative relationship between financial

leverage and the stock returns. Samuel (1973) considered leverage as the ratio of equity to assets and checked with the industry profitability. He examined that the changes in profitability influence the financial decisions while showing a negative impact. The previous studies illuminate that it is not significant at ordinary test level because there are some market elements in between the relationship like the cost of capital that requires to be included in the equation. He also explained that the positive relationship of the financial leverage, cost and market elements is not essential, while the linkage between leverage, profitability and the cost of capital is the most important factor.

Awan, Bhatti, Ali and Qureshi (2010) document a negative relationship between the growth opportunities and financial leverage of the firms while another school of thought founds positive relationship. The authors imply the data of 110 companies listed on KSE (Karachi Stock Exchange) for 15 years starting from 1982 to 1997. They consider 9 different sectors and used fixed effect regression model to examine the key relationships. A positive relationship was found for the corporate firms between the level of debt and the growth opportunities. The firms having lower and medium growth opportunities may be benefited from such positive relationship. The reason behind the findings may be explained as shareholders of these firms consider the growth opportunities available as unmanageable and risky. They are intended to transfer the increased risk to the lenders. An easy access may be provided to the credit market by some socio economic and political belongings of the owners resulting in enhanced level of debt. If the risky investment is successful, new common stock is issued at higher prices. Such a positive relationship may be caused by

unsustainable growth opportunities prevailing in the country, the under developed capital markets, large number of low growth firms with their below average reputation among the investors and the general public. In the same study, the authors set up that the type of industry type influence the relationship between the growth opportunities and financial leverage.

The author observed that smaller firms mostly use the equity to finance their operation while larger companies used both debt and equity. Areetey et al. (1994) suggest that large companies have easy access of credit from banks than small firms.

The relationship between leverage, managerial ownership and value has been observed by McConnell and Servaes (1995). At the time of scarce opportunities for growth, a positive relationship was found between financial leverage and the value of firm. On the other hand, some other paper demonstrates a negative relationship between the financial leverage and future growth at the level of firm and at the segment level in case of diversification (Lang, Ofek and Stulz, 1995).

Bradley, Jarrell and Kim (1984), Long and Malitz (1985), Smithand Watts (1992) and Barclay, Smith and Watts (1995) suggest a negative relationship between the market leverage and the market-to-book ratio. The market leverage is discussed with the growth opportunities where the variable depicted a negative relationship with growth. Moreover, the researchers found that on book leverage and market to book ratio and study affirms empirically that the debt capacity with growth choices is negative. The leverage ratio should be lower for firms with more growth opportunities while the debt capacity of growth

option may be smaller in size but stays positive when the market value of firm matures. Some authors conducted a study on a sample of 383 US companies and explained the relationship between financial leverage and firm value from 19881-1987 (Agrawal and Knoeber, 1996).

Nishat (2000) suggests that highly leveraged firm lead to a stronger negative relation between returns and instability at industry level in Pakistan. Industries with low leverage firms have high debt to equity ratios as compared to the highly leverage firms. They elucidate that leverage level in the history of Pakistan is seemed to be high. The constant negative and significant relationships between return and volatility change are observed.

Pet and Juo (2001) validate a negative relationship between debt by only considering bank loan from total debt and growth by considering the minor ranges of growth. They endorse an important positive relation in the higher range of market to book ratio. Therefore, it depends on different growth ranges when there is high growth firm use monitored debt and when firm have lower growth range it depends on banks.

Firm size has been proven one of the most important elements of company capital structure. Empirically, Al-Sakran (2001) establish a significant and positive relationship between capital structure and firm size.

The most important element of company capital structure is firm size. A positive relationship is observed between capital structure and firm size by some authors. Caesar

and Holmes (2003) found positive relationship between firm size and long-term debt ratio while negative relation exists among short term debt and company size.

Johnson (2003) reveal a negative relationship of debt with growth opportunities and suggests the reason for such an inverse relation. The increased liquidity risk causes the negative relationship between the two variables. The data for this study consists of 4,945 firms for the period of 1986-1995. This study agrees with Myers's prediction that usage of short-term debt put the negative effect on growth opportunities and leverage. Short debt also increases the liquidity risk which negatively affects leverage.

Chen and Zhao (2004) illustrates that the higher market value to book ratios firms are more inclined towards the equity issuance not for the reason as they are likely to make a downward adjustment in their targeted leverage ratios, but probably due to their exposure to the lower costs of external equity financing. More debt is issued by the highly profitable firms not for the reason as they are under levered and strive to achieve the target ratios, but due to their costs become lower for external debt financing.

Firms having subsidiaries have lower ratio of leverage as compared to their parents companies (Dittmar, 2004). He also indicates that previous studies have worked on negative relation between leverage and growth and originate the result but does not provide any description that may be helpful the companies to adjust their capital structure. When company commence its subsidiary, it uses to initiate with lower ratio of leverage as parents does not allow to employ higher debt ratios.

Company performance and total debt level have a positive relationship. Abor (2005) found that in Ghanaian organizations more than 80% financing is done by short term debt.

Dimitrov and Jain (2005) recommend a negative though important relationship of the financial leverage and returns realized on company's stock. The influence of leverage alters on stock returns and earnings-based indicators of performance as determined by Dimitrov and Jain (2005). Debt to equity ratio and risk adjusted stock returns have a negative correlation.

In 2005, Dimitrov and Jain estimate the impact of variation in leverage on stock returns and on earnings-based determinants of performance. Their findings demonstrate a negative coefficient of correlation between debt/equity and the risk adjusted stock returns. Negative relation was found between book leverage and market to book ratio (Barclay and Clifford, 2006). Chen & Zhao (2006) studied that firms with higher market-to-book ratios face lower debt financing costs and borrow more. Leverage value drops when growth opportunities increases (Antoniou, et al. 2008. Frank and Goyal (2009) said that market-to-book equity ratio has a negative relationship with market leverage of firm but this result is not consistent for book leverage.

In 2008, Muradoglu and Sivaprasad explores an increase in the level of financial leverage for the utilities sector which supports the verdict of Miller and Modigliani and Bhandari (1988). While such relationship becomes negative for the other sectors which is similar with the more recent work of Korteweg (2004), Dimitrov and Jain (2005) and

Penman (2007). Some researchers (see e.g Hamada, 1972; Bhandari, 1988) predict an increase in returns for leverage; whereas others found a decrease in returns for the firm's leverage (Kortweg, 2004, Dimitrov and Jain, 2005, Penman 2007). Do and Nhu (2009) suggest that a negative relationship exists between leverage and stock price. Such relationship declines with equity offerings.

In 2008, Minjina explores that the relationship of market to book ratio with the financial leverage ratio is not proved to be monotonic and stands positive for multiples of medium and lower values while it turns negative by using higher values. Some authors provide that the companies may reveal more leverage benefits if they have low or medium market to book ratios while companies with high market to book ratio enjoy more growth opportunities.

To prevent the profit usage for interest payments, the profitable firms keep their leverage levels low. This idea generated another school of thought if the firms avoid to capture the profitable investments and opportunities in order to maintain their low levels of leverage. Al-Shubiri (2010) found that an adverse relationship of returns with the financial leverage may happen as a consequence of the market's pricing to judge the firm's capability of fund raising.

Kajola and Onaolapo (2010) observed a strong negative relationship among both variables. By using accounting and marketing measures they measured firm performance. Alternatively, the author evaluated an important negative relation b/w the firm's leverage and company performance. Al-Shubiri (2010) predicts the positive relationship between

financial leverage and stock returns for utilities sector despite of the fact that it is a risk class with extreme regulations and possess high leverage ratios. The researchers evaluated an important negative relation between the firm's leverage and company performance (Rami, Zeitun & Tian, 2007; Kajola and Onaolapo, 2010; Sirikul, 2010 and Khan, 2012).

During 2006-2011, some authors evaluated the impact of capital structure on the company performance and shareholders' wealth in Pakistan market. Growth opportunity has been considered an important measure of capital structure (Awan, Bhatti, Ali and Quershi, 2010). Al-Shubiri (2010) predicts the positive relationship between financial leverage and stock returns for utilities sector despite of the fact that it is a risk class with extreme regulations and possess high leverage ratios.

Al-Shubiri (2010) keep on arguing that the earning firms keep low level of financial leverage in order to prevent maximum usage of income in the lieu of interest payments. The statement supports another viewpoint that the firm may overlook some other profitable growth opportunities and investments. Hence, the firms may scarify their value in long term. Furthermore, the negative relationship may exist between leverage and stock returns due to the firm's ability of its market pricing when it needs financing.

The Relationship between debt to asset ratio and market to book ratio was observed by Iqbal, Hameed & Ramazan (2012). They picked up the 53 non-financial sector firms of 100 Index listed at Karachi Stock Exchange for the collection of financial data over the last 8 years. The results express an important direct relation of debt to asset with market value

to book value ratio. Bayrakdaroglu, Ege, andYazici (2013) discovered the higher debt ratios for the companies facing high growth opportunities in Turkey.

The basic purpose of this study is that it can show created value for stockholders (Moridipour and Farrahipour, 2013). This standard is set on the basis of price- to- book ratio, one of ratios related to market value. The relationship between market price to book ratio and accounting variables in Tehran Stock Exchange was observed for the period of 2005-2009 by taking the sample of 56 companies. The results indicates that price to book ration demonstrates a significant relationship with variables like liquidity ratio, leverage ratio, return on equity, return on assets, efficiency, cost control and dividend but it has no significant positive relationship with profitability. The findings indicated that price to book is appropriate criterion for measuring the value created for stockholder.

In industrial data analysis leverage and stock returns shows an important negative relationship. Acheampong, Agalega and Shibu (2014) illustrate that the relationship was not found to be stable at the individual firm's level. Acheampong et al. (2014) reports an inverse relationship between firms' leverage and stock returns. In the same year 2014, Nourish and Alfred examined the correlation between Economic Value Added and the Market Value Added for the sample of private banks in Sri Lanka. He also studied the relationship between financial leverage and MVA for the same sample. (Nourish & Alfred, 2014). It was also examined that market value added has a relationship with leverage of firms.

The author also worked on the relationship between financial leverage and Market Value Added for the sample. They established that Economic Value Added and the financial leverage did not show a significant impact on Market Value Added. For achieving optimal capital structure, firm continue issuing debt until the value of firm keeps on increasing and remains in positive relation with leverage (Cheng & Tzeng, 2014). They also observed the negative influence of debt on the firm value. But the role of debt seemed to be disappeared as a disciplining character when it was used in simultaneous equation model and the residual mechanisms were taken into account,

Tilehnouei and Shivaraj (2014) executed the study to find the relationship between financial leverage and market-to-book equity ratio. The sample firms taken are listed on National Stock Exchange of India. A significantly negative relationship between leverage and market to book equity is reported by the authors. Beyond the tax benefit of leverage, they also provided that investment opportunities in future proved to be an important element for defining the market to book equity. The research results were also found to be consistent with that of previous literature (see Sunder and Myers, 1999, Antoniou et al., 2002; Frank & Goyal, 2009) while the findings do not match the idea of traditional trade off theory.

Leverage and stock returns demonstrated a significant negative relationship in the overall industrial data analysis. While the relationship was not found to be stable at the individual firm's level (Acheampong, Agalega & Shibu, 2014). Mujahid, and Akhtar, (2014) illustrates that there is an important and direct relationship between capital structure

and performance variables. Leverage and stock returns demonstrated a significant negative relationship in the overall industrial data analysis. While the relationship was not found to be stable at the individual firm's level by Acheampong, Agalega & Shibu (2014). This study empirically analyzed the impact of three financial leverage measures on market value added taking a sample of 197 "A" group companies listed on Bombay Stock Exchange. The study covered the period ranging from 2010 to 2014. Following the ordinary least squares method, univariate and multiple linear regression were used to analyze the relationship between independent variables and a dependent variable. It was found that when analysed univariately, all three measures of financial leverage namely; debt equity ratio, interest cover and debt ratio were significantly related to market value added

Hovakimian & Tehranian (2004) conducted a study followed by the similar type of study conducted by Mohammadi & Mahmudi (2015). The authors analyzed the effect of capital structure variables on company profitability (Return on assets, return on investment, and Dividend per Share) by taking samples of 150 firms listed on Tehran Stock Exchange. The findings of multivariate regression analysis showed that ST and LT debt has negative effect on the firm profitability. This association is found positive in case of total debt and profitability level. The research scholar conducted a study on TSE companies in Tehran to analyze the effect of debt level on the performance (Tobin's Q). They found a significant direct relationship between the level of debt in the capital structure and company performance (Kazempour & Aghaei, (2015).

Top management make serious and important decisions against capital structure and these decisions helps in maximizing profit of shareholders and also improve overall performance of organization. The basic aim of this research is to evaluate the effect of capital structure on financial performance of Pakistani companies listing on Karachi Stock Exchange during 2004-2012. Corporate performance decreases by short term and long-term debts. Moreover, total debt to total assets has an important relation with the company performance measured by using return on equities, return on assets Tobin's Q and earning per share (Awais, Iqbal and Khursheed, 2016). Authors found a strong negative relationship between both variables. By using accounting based and marketing measures, they measured firm performance. Tarek Ebrahim (2009) considered the association between the ratio of the market to book value of shares i-e the price to book ratio and other financial variables like return on equity. The results provide a reflection of price to book ratio on the return on equity. Wipern (1966), Ronald (1983), Adeyemi and Oboh (2011), Jameel (2013), Jermais (2008), Fosu (2013), Barakat (2014), Farooq and Masood (2016) and Akhtar, Khan, Shahid and Ahmad (2016) also illustrates positive relationship of leverage with the firm value and performance.

2.9. Impact of Leverage on research variables; Summarized viewpoints

Modigliani and Miller (1958) illustrates that the value of a leveraged and unleveraged firm with same set of investment opportunities remains the same in the absence of taxes when the markets are perfect. They say that the factors which contribute to firm's profitability, cash flow or value have a big influence on investment policy of the

firm. Therefore, it shows that the investment decisions of firm are not affected by financial leverage.

Issue of debt signals as increase in value implying managers informed market that they are ready to pay out cash to their creditors (Ross, 1977). This benefit is not provided by equity the reason is that shareholders claim on the profits of the company are outstanding not compulsory. Thus, this thing relaxes managers so they have to pay only interest and principal amount on time while the payment of dividends can be paid later. In this way leverage assists as a commitment and incentive tool. Thus, firms value increases by issuing debt instead of equity and it will also lower the agency costs.

Debt decreases the amount of cash available to the managers therefore it will minimize their chances for wasting corporate resources (Jensen, 1986). As the financial leverage is referred as the degree of firm reliance on debt (Hillier et al., 2010).

In 1996, Agrawal and Knoeber illustrates that financial leverage has a negative effect on firm value by the way of lest square regression. They carried out their study over the sample of 383 companies of United States from 1981-87. Later on, the part of debt as a disciplining tool wiped out when the simultaneous equation model was used with all other factors.

Wet and Hall (2003) observed that the impact of higher degree of financial leverage may be compensated by the lower capital cost. This phenomenon is known as Economic Value Added leverage. Pandya (2004) states that debt to equity ratio, debt ratio and the

interest coverage ratio are the three fundamental measures of financial leverage which are significantly associated with market value added (MVA). In contrast, the results of some other authors did not confirm a significant influence of leverage on market value added (Nourish and Alfred, 2014). Moreover, Pachori and Totala (2002) support that the financial leverage does not demonstrate a significant impact on the market capitalization and shareholders return.

Myers (1984) and Rajan & Zingles (1995), indicate a negative relationship between the firm value and capital structure. Whereas the financial leverage positively affects the value of firm supporting the results of Ward and Price (2006), Sharma (2006) and Firer et al (2004). The authors studied industrial affiliation and the relationship between stock returns and Book Market Equity by using the data of 21 industries over the 32 years period. They also exhibit that value effect is strongest in value industries and weakest in growth industries. Finally, they find results consistent with the argument that the value premium is a result of investors requiring higher returns from firms in relatively upset conditions. Then definite value firms have to show higher returns, higher leverage and higher risk of financial distress. (Banko, Conover & Jensen, 2006).

De Wet (2006) found that different ranges are available through which leverage utilization can increase market value and hence optimal capital structure can be established. But this range differs across industry to industry. George et al (2006), observed a negative relation between returns and book leverage.

Firms with higher leverage changes on average have lower returns (Cai and Zhang, 2006). This research focused on earning control and firm's characteristics but still they found negative relation. This study is built on different model like pecking order and tradeoff model but results have a negative effect on stock return. This study also found a negative effect of leverage change on future investment, suggesting that increasing leverage does lead to future under investment. Due to leverage changes, there is no indication of healthy future investment therefore the results provide a little support to default hypothesis and also find weak effect of the long as well as short debt leverage on the stock.

De Wet (2006) determines the optimal capital structure: a practical contemporary approach in is research. For instance, McConnell and Servaes, (1995), Aggarwal and Zhao, (2007), Zeitun and Tian (2007) Aggarwal, Kyaw and Zhao, (2011). Yet, some studies found the key relationship inconclusive: e.g. Agrawal and Knoeber, (1996), De Jong (2002), Dessi and Robertson, (2003). There is no certainty about the overall effect of debt on firm value: and several studies found it to be negative Thus, besides leverage, the most important factors influencing firm value and reviewed in this thesis are: growth opportunities, corporate governance structure (insider ownership, ownership by largest block holders and their identity, and size of the board), size of the company and industry in which the firm operates. In many prior empirical models' debt-value relation was examined simultaneously with the determinants of leverage to control for endogeneity. Based on prior experience and theoretical reasoning, the author of this thesis is convinced

that one cannot review the relation between leverage and value without having an idea about factors that determine leverage. These are: growth opportunities, corporate governance, size and profitability of the company, tangibility and liquidity of its assets, free cash flow and tax.

Myers (1984) and Rajan & Zingles (1995) indicate a negative relationship between the value of firm value and capital structure. While the financial leverage positively effects the value of firm supporting the results of Ward and Price (2006), Sharma (2006) and Firer et al (2004). Financial leverage demonstrates a negative impact on the firm's financial performance that proved to be significant with the use of accounting and marketing performance measures (Tian and Zeitun, 2007). Rayan (2008) study the leverage in the African environment and establish that financial leverage has a negative relationship with firm value. Hence, a decrease in leverage results in an increase in value of firm. Such findings are contrary to the previous research conducted for the firms listed on the JSE South African market during the period of 1998 to 2007.

There is no certainty about the overall effect of debt on firm value: some studies found it to be negative: e.g. McConnell and Servaes (1995), Aggarwal and Zhao (2007), Zeitun and Tian (2007) Aggarwal, Kyaw and Zhao (2011). Yet, some studies found the key relationship, e.g. Agrawal and Knoeber (1996), De Jong (2002) & Dessi and Robertson (2003). Other factors besides leverage effects firm value in this thesis are: growth opportunities, corporate governance structure (insider ownership, ownership by largest block holders and their identity, and size of the board), size of the company and industry

in which the firm operates. Debt value relation was examined instantaneously in many prior empirical models the determinants of leverage to control for endogeneity. The author of this thesis based on prior experience concluded that we cannot review the relationship between leverage and value without knowing other factors that determine leverage. These are: growth opportunities, corporate governance, size and profitability of the company, tangibility and liquidity of its assets, free cash flow and tax. Florou and Chalevas (2010), observed that a important relationship between leverage and stock return.

The optimal capital structure is difficult to establish but the ranges are available through which efficient leverage utilization could increase the market value (De Wet 2006). But this range varies across industry to industry. Moreover, recently the study by Florou and Chalevas (2010) found a significant relationship between leverage and stock return.

Bhatti and Sultan (2012) illustrate that leverage factor improves momentum during the financial crisis and executes a significant effect on the cross-section of expected stock returns and portfolios. After introducing the Fama and French factors, the stock return sensitivity become lower as the leverage factor is introduced by the authors.

Pachori and Totala (2012) inspected the influence of leverage on shareholders' return (ROE) and the market capitalization by taking the sample of automotive cluster companies operating in India. The study shows that that there was no substantial effect of financial leverage on shareholders return and market capitalization. Hasan and Gupta (2013) worked on a sample of 28 companies operating in Bangladesh, to find out the

relationship between debt ratios as a proxy for leverage and earning per share as that of shareholders' return.

In Pithampur (India), Pachori and Totala (2012) observe the influence of financial leverage on market capitalization and shareholders' return of automotive group companies and affirm not significant impact of financial leverage on both variables mentioned above. While later on, a negative relationship was found between financial leverage and stock returns by some other authors (Acheampong et al., 2014). Commer,Jabeen & Shah (2013), check the impact of initial profits for the period 2006-2011 on the growth and profit on a sample of firms listed at Karachi Stock Exchange .

This research not only works on initial profits but also found the effect of leverage, firm's size and age on profitable growth. From the work of Davidsson et al. (2009), logistic regression was used to find out whether profit at initial stages of the firm determines profitable growth for the firm. And also shows that initial profits had a positive significant impact on profitable growth. But firm's size, age and leverage had no impact on profitable growth of the sampled firms. Profit focused firms have more chances of growth and earn profits as compared to growth focused firms.

Hasan and Gupta (2013) carried out a study at Bangladesh to find the relation of debt ratio and EPS used as proxy for leverage and stockholders' returns respectively. They illustrated that financial leverage significantly influences the shareholders' value.

A relationship between financial leverage and profitability was examined by Al-Shamaileh and Khanfar (2014) for tourism industry of Jordan. A significant effect was concluded on profitability for the listed companies.

In Sri Lanka, Nourish and Alfred (2014) conducted a study and document no significant impact of Economic Value Added and financial leverage on Market Value Added. On the other hand, a positive relationship was found between leverage and value of firm by Cheng and Tzeng (2014). It is conditioned by sufficient issuance of debt to maintain the optimal capital structure.

A study shows that leverage had substantial effect on shareholder wealth. In the perspective of tourism companies in Jordon, the relationship between the debt ratio considered as a substitution of financial leverage (Al-Shamailah & Khanfar, 2014). They found that leverage have an important effect on profitability of tourism companies which are included in Amman Exchange.

Vijayalakshmi and Manoharan (2015) observes that leverage had important effect on Economic value added and market value added of the companies included in the sample. Badi and Minoei (2015) examined a significant impact of market value and financial leverage on stock returns. Furthermore, they provided that the stock returns exhibited an increase of 43.09 percent with the increase in leverage consistent with the value of market.

Ramadan (2015) analyzed the impact of leverage on firm value in the case of listed firms on Amman Stock Exchange. The author explore that the leverage level of the firms influences the value of the listed firms incorporated in the sample.

The above discussion shows that pecking order theory, the agency theory, the free cashflow theory, the trade-off theory and the static trade off theory provide a theoretical framework for the capital structure decisions and the resultant performance measures. A useful framework is offered to understand financing and resulting firm value. The research studies regarding financial leverage and company value provide a broad set of both consistent and contradictory conclusions. Both conservatism and risk-taking tendencies are examined in several research studies conducted. Valuation and financial leverage are the two main factors which are discussed in various research studies and in literature. However, there are gaps in the knowledge of how leverage is influenced by market measure. This aspect is still being analysed by the research scholars for earlier empirical studies. A few snapshots of the literature summary is listed in the following table ???? of summarized literature viewpoints;

Table 1: Summary of Literature viewpoints

Study Title & Journal	**Authors (Year)**	**Variables**	**Study Findings**
The cost of capital, corporation finance and the theory of investment *The American economic review*	Modigliani & Miller (1958)	Return on equity, risk of stocks firm's profitability, investment policy	Firm value is independent of capital structure. Investment decisions are not affected by financial leverage
The determination of financial structure: The incentive-signalling approach. *The Bell Journal of Economics*	Ross (1977)	Leverage as incentive tool & firm value	Issuing debt increases firms value and reduce cost
The capital structure puzzle. *The journal of finance*	Myers (1984)	Leverage & firm value	Negative relationship between the firm value and capital structure
Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*	Jensen (1986)	Leverage	Debt minimizes chance of wasting resources
What do we know about capital structure? Some evidence from international data. *The Journal of Finance*	Rajan & Zingales (1995)	Firm value, capital structure	Negative relationship between the value of firm and capital structure

Equity ownership and the two faces of debt. *Journal of financial economics*	McConnell & Servaes (1995)	Growth, Debt, equity ownership & institutional investment	Positive relationship between leverage and value of firm
Firm performance and mechanisms to control agency problems between managers and shareholders". *Journal of Financial and Quantitative Analysis*	Agrawal,and Knoeber (1996) United states of America	Financial leverage & Firm value	Financial leverage has negative impact on firm value
Leverage, investment, and firm growth. *Journal of financial Economics*	Lang, Ofek & Stulz (1996)	Book leverage, cash flow, sales growth	Negative relationship between financial leverage and future growth
Risk and return of value stocks *The Journal of Business*	Chen & Zhang (1998)	Leverage change, under investment, stock returns	Change in higher leverage on average have lower returns
The Systematic Risk and Leverage Effect in the Corporate Sector *The Pakistan Development Review*	Nishat & Ahmad (2000) Pakistan	Leverage, return, volatility changes	Negative relation between returns and instability at industry
Leverage determinants in the absence of corporate tax system *Managerial Finance*	Al-Sakran (2001) Saudi Arabia		Positive relationship between capital structure and firm size

Capital structure and financing of SMEs: Australian evidence *Accounting & Finance*	Cassar, G., & Holmes, S	Asset structure, profitability and growth	Positive relationship between firm size and long-term debt while negative relation among short term debt and company size.
Debt, incentives and performance: Evidence from UK panel data. *The Economic Journal*	Dessí & Robertson (2003)	Capital structure, performance, growth opportunities, corporate governance, size and profitability of the company, tangibility and liquidity of its assets, free cash flow and tax	Positive results of leverage on performance for firms with low growth opportunities
Debt maturity and the effects of growth opportunities and liquidity risk on leverage. *The Review of Financial Studies*	Johnson (2003)	Short debt maturity, growth opportunities, leverage	Negative relationship of debt with growth
Understanding the role of the market-to-book ratio in corporate financing decisions *Michigan State University*	Chen & Zhao (2004)	Market to book ratio, profitability, growth, financing types	Higher market value to book ratios firms are more inclined towards the equity issuance

Capital structure in corporate spinoffs. *The Journal of Business*	Dittmar (2004)	Growth, capital structure	Subsidiaries have a low ratio of leverage compared to parent Co.
The effect of capital structure on profitability *The journal of risk finance*	Abor (2005) Ghana	Profitability ratios, capital structure ratios	Company performance and debt level have a positive relationship
Determining the optimal capital structure: A practical contemporary approach. *Research Journal of the School of Accounting Sciences*	De Wet (2006)		Higher financial leverage compensated by lower capital cost
An analysis of strategic performance measures of companies listed on the JSE securities exchange. *South African Journal of Economic and Management Sciences*	De Wet & Hall (2006) South Africa	Leverage, industry and market value	Leverage increase market value but range differs from industry to industry
Capital structure and corporate performance Australasian *Accounting, Business and Finance Journal*	Zeitun and Tian (2007) Jordan	Capital structure, firm performance, accounting and marketing performance measures	Financial leverage demonstrates negative impact on financial performance

The Value Relevance of Changes in Financial Leverage Beyond Growth in Assets and GAAP Earnings *Journal of Accounting, Auditing & Finance*	Dimitrov & Jain (2008)	debt/equity, the risk adjusted stock returns	Debt to equity ratio and risk adjusted stock returns have a negative correlation
An Empirical Test on Leverage and Stock Returns. *The Journal of Finance*	Muradoglu and Sivaprasad (2008)	Firm level, portfolio level	Increase in the level of financial leverage for the utilities sector
Financial leverage and firm value. *Gordon Institute of Business Science, University of Pretoria*	Rayan (2008)	Firm value, interest rate, capital structure	Financial leverage has a negative relationship with firm value
Growing profitable or growing from profits: Putting the horse in front of the cart? *Journal of Business Venturing*	Davidsson, Steffens & Fitzsimmons (2009)	leverage, firm's size and age on profitable growth	initial profits and profitable firms have positive impact on profitable growth while age and size have no effect
Shareholder Value and the Articulation of P/B and Stock Return in *Euro Journals Publishing, Inc.*	Ibrahim Eldomiary (2009) Egypt	Market to book value of shares i-e the price to book ratio, financial variables like return on equity	price to book ratio reflect return on equity

How growth opportunities are related to corporate leverage decisions? *Investment Management and Financial Innovations*	Awan, Bhatti, & Qureshi (2010) Pakistan	Leverage, growth	Negative relationship between growth opportunities and financial leverage
Capital structure and value firm: an empirical analysis of abnormal returns *Economia. Seria Management*	Al-Shubiri (2010)	market's pricing, financial leverage	Adverse relationship of returns with the financial leverage
Analysis the determinants of market stock price movements *International Journal of Business and Management*	Al-Shubiri (2010) Jordan	market price of stock to determine stock returns Leverage, net asset value per share, dividend percentage, gross domestic product	Positive relationship between financial leverage and stock returns
Leverage risk, financial crisis, and stock returns A comparison among Islamic, conventional, and socially responsible stocks. *Islamic Economic Studies*	Bhatt & Sultan (2012)	Leverage, Stock returns and portfolios	Firms leverage during financial crises have significant effect on stock returns

The effect of leverage on shareholders' return *European Journal of Business and Management*	Hasan & Gupta (2013)	Debt ratios, EPS	Leverage has significant effect on returns and proper management can maximize value of EPS
The Inter-Relationship between Initial Profits, Growth-Focused Firms and Profit-Focused Firms *Pakistan Journal of Commerce and Social Sciences*	Jabeen & Shah (2013)	Growth, profitability, firm age, firm size	Initial profits has positive effect on growth, size and age of firm have no effect, profit-focused firms are more likely have high growth and profits
The effect of the financial leverage on the profitability in the tourism companies). *Business and Economic Research*	Shamaileh & Khanfar (2014) Jordan	financial leverage, profitability, ROI	Leverage and ROI have significant effect on profitability
The association between economic value added, market value added and leverage. *International Journal of Business and Management*	Niresh & Alfred (2014)	Economic value added, market value added and leverage	No impact of Economic Value Added and leverage on Market Value
Effect of leverage on firm market value and how contextual variables influence this relationship. *Review of Pacific Basin Financial Markets and Policies*	Cheng & Tzeng (2014)	Leverage, firm market value	Positive relationship was found between leverage and value of firm

The association between economic value added, market value added and leverage. *International Journal of Business and Management*	Niresh & Alfred (2014)	firm growth; initial profit; profitable growth; firm's size; resource-based view; firm's age; leverage	Leverage has no association with market value
The effect of financial leverage and market size on stock returns on the Ghana Stock Exchange *International Journal of Financial Research*	Acheampong, Agalega & Shibu (2014) Ghana	Leverage, stock returns	Inverse relationship between firms' leverage and stock returns
Asian Research Consortium. *Asian Journal of Research in Business Economics and Management*	Tilehnouei & Shivaraj (2014) India	financial leverage and market-to-book equity ratio	Negative relationship between leverage and market to book equity
Impact of capital structure on firms financial performance and shareholders wealth *International Journal of Learning and Development*	Mujahid & Akhtar (2014) Pakistan	ROA ROE , EPS, Capital structure	Leverage and stock returns demonstrated a negative relationship
The effect of financial leverage and market size on stock returns on the Ghana Stock Exchange *International Journal of Financial Research*	Acheampong, Agalega & Shibu (2014) Ghana	Financial leverage, stock returns	Negative relationship between financial leverage and stock returns

Capital Structure and Firms Performance in Tehran Stock Exchange. *International Journal of Management, Accounting and Economics*,	Kazempour & Aghaei (2015) Tehran	Capital structure, Return on assets, return on investment, and Dividend per Share	debt has negative effect on the firm profitability
Corporate leverage and its impact on EVA and MVA. *International Journal of Multidisciplinary Research and Development*	Vijayalakshmi & Manoharan (2015)	Leverage, Market value, economic value	Leverage had impact on Market Value Added and EVA
"Investigate the relationship between "market value and leverage" and "return on stock and economic value added", Epistemologia	Badi and Minei (2015)	Market value, leverage, return on stock, economic value added	Leverage has positive effect on stock returns
Leverage and the Jordanian firms' value: Empirical evidence. *International Journal of Economics and Finance*	Ramadan (2015) Jordan	Leverage, firm value	Leverage influences firm value
Impact of financial leverage on market value added *Journal of Entrepreneurship, Business and Economics*	Pandya (2016) India	debt to equity ratio, debt ratio and the interest coverage ratio	Financial leverage significantly associated with market value added (MVA)

Impact of capital structure on the firm performance *Science international Journal*	Awais, Iqbal & Khursheed (2016) Pakistan	accounting and marketing measures	capital structure and firm financial performance have an an inverse relation

2.10. Model of Research

Model of the research is developed based on the literature discussed earlier. The theoretical framework of the research is shown in Figure 8;

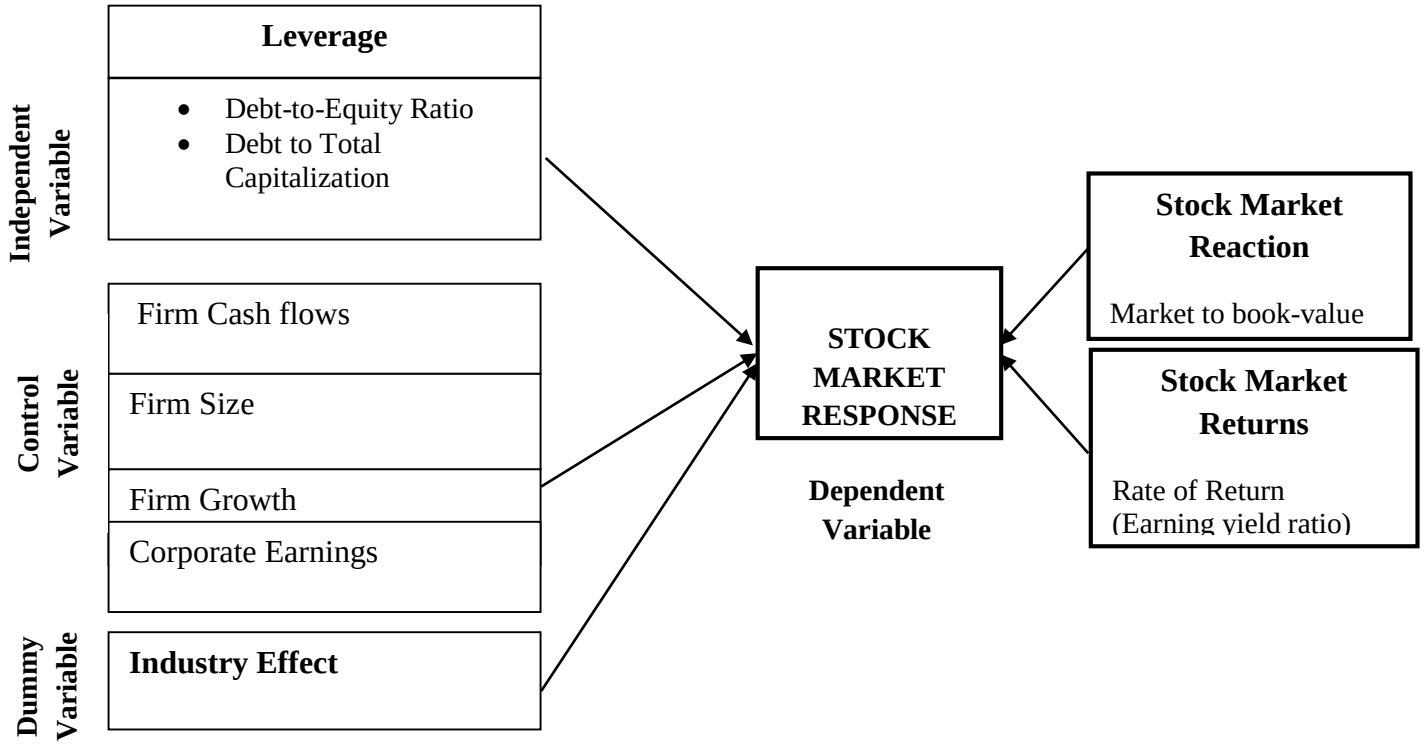


Figure 8 **: Theoretical framework**

2.11. Hypotheses

H_1: "Leverage has a significant impact on Stock Market Reaction."

H_2: "Leverage has a significant impact on Stock Market Returns."

H_3: "Leverage has a significant impact on Stock Market Reaction with the control effect of cash flows, firm size, firm growth, corporate earnings and industry effect."

H_4: "Leverage has a significant impact on Stock Market Returns with the control effect cash flows, firm size, firm growth, corporate earnings and industry effect."

H_5: "The firm cash flows, firm size, firm growth, corporate earnings and industry determine the stock market reaction in a sequential pattern of varying intensity with leverage."

H_6: "The firm cash flows, firm size, firm growth, corporate earnings and industry determine the stock market returns in a sequential pattern of varying intensity with leverage."

H_7: "The demographic characteristics of the company finance managers make a significant difference to determine their investment decisions in leveraged firms and the respective stock market response."

H_8: "The demographic characteristics of the equity investors make a significant difference to determine their leverage decisions and to predict the respective stock market response."

To empirically test the above stated hypotheses on the primary data and secondary data, simple linear, multiple linear, hierarchical, stepwise regression, and fixed/random effect models are used. A comprehensive explanation of the statistical methods and econometric models employed by the study is described in the methodology section. For the current study the data about investors' perception, finance managers of the non-financial sector companies listed at Pakistan Stock Exchange, the secondary data collection from the 22 sectors of non-financial companies listed at PSX for the period of 2003-15 and its implications, association with real investment decisions taken by the investors, will develop new visions to the companies listed at Pakistani Stock Exchanges for leverage decisions. The upcoming section highlights the study methods for the empirical assessment of the study propositions.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter aims at describing the methodology of research in order to discover the possible solution for the problem and proposed objectives stated in chapter 1, this part consists of the methodology employed to conduct the study. The study provides a solid base to make an effective analysis of statistical data outcomes. The part of the study involves the research equation, data collection methods, the types of data involved, variables, the dimensions used to predict the variables and the respective criteria to make such measurements. The conceptual framework for the study is designed that illustrates the association of the predictor, predicted and control variables is designed. The details about sources of data, population and sample details are provided by the chapter. The chapter also summarizes the operational definitions of the variables, the research instrument and its process of development. Furthermore, the research analysis statistical tools to obtain the results of the study and the softwares used for empirical analysis are covered in this part of the study.

3.1. Research Design[14]

Various classifications of a research study may be done depending upon its objectivity. In 2003, Cooper and Schindler propose a descriptive and others which are casual in nature. On the other hand, Lewis and Thornhil (2003) suggest the categorizations of a research studies as exploratory and descriptive or exploratory. The plan of the strategy that researcher implies to answer the research questions or to meet the objectives of the study is termed as the research design. Saunders, Saunders and Thornhill (2011) recommends that the research design identifies the data sources, the methods used for data collection, the sampling size and technique and the tools used for analysis of data collected. In addition, some other researchers further elaborate that a research design is the real framework providing precise description of the process to be followed while conducting a study. It consists of the research questions and objectives expressed during the initial stages of the research (Sreejesh, Mohapatra & Anusree, 2014).

This research study is a hypotheses testing study that involves properly structured and preplanned study design by via sample surveys with the help of research instrument, so it can be referred as formal and descriptive study. In the view of Churchill & Iacobucci, (2004) & Hair et al. (2003), a descriptive study is a structured design study and is preplanned usually to be conducted with a large size of sample contrasting with an exploratory study. The descriptive research is comprised of two different techniques: 1)

[14] According to Carriage (2000), a research design refers to the strategy, the plan, and the structure of directing a research scheme.

cross-sectional, 2) longitudinal. Burns & Bush (2002); Malhotra (1999) explain the cross-sectional study as it employs the information at an instance or at one point in time. On the other hand, the longitudinal studies consist of the same sample units over a period of time. While Hair et al. (2003) provides that the cross-sectional study is also known as a sample survey where the individuals respond to the properly structured questionnaires. This study may be categorized as cross sectional study. As the study not only considers the primary data collected by using a survey method but also a time series secondary data for the period of 13 years i-e, 2003 to 2015 is also taken for comparative analysis.

Descriptive studies may expose the relationship of variables but are considered inadequate for depicting the cause and effect relationship (Malhotra, 1999). A causal research is the most appropriate option to inspect the functional relationship between the casual factors (Hair et al., 2003). This study also investigates the causal relationships between the financial leverage and stock market response split into the market returns and reaction. This type of study is a statistical in nature as its findings are based on the statistical results of the data collected. Such research environment in which the study is being conducted is known as field setting as it is not a kind of laboratory research nor a simulation study.

3.2. Research Data

The choice of appropriate mode for the data collection is an essential part of the research. This study is comparative in nature as the study aims to build a comparison

of the facts provided by historical financial figures and the real response of the investors to the perceptions prevailing in the market. Therefore, based on the research objectives to be achieved, two types of data is included in the study; the Primary data and the Secondary data.

3.21. Primary Data

The primary data consisted of two parts; the first part consisted of the questionnaire designed to seek the responses of investors making the investment decisions to invest in the firms' stocks at Pakistan Stock Exchange. The second part of the primary data collection was based on the questionnaire designed for the managers dealing with the financial decisions of the public limited companies of non-financial sector listed with the Pakistan Stock Exchange. The first part of primary data is based on a research questionnaire to perform companies' management perception survey while making financial decisions and the stock market response. In addition, the primary data includes an equity investors' perception survey while making an investment in companies stock and the market response (reaction) to companies financing decisions. It helps to make a comparative analysis of finance theories and the real market perceptions. The research instruments (questionnaires) to test the managers' and investors' perception are given in the appendix-B.

Hence, the primary data consists of the responses collected from;

i. The equity investors who make investments and relevant decisions at stock market
ii. The companies finance managers who are involved in the financing decision making.

3.22. Secondary Data

The firm level historical data starting from 2003 to 2015 for variables like debt to equity ratio and market level data like Market to Book Ratio, earning yield and control variables, free cash flow size, growth and industry is included to capture the impact of variables on stock market response. Such data in intended to find out the statistical results based on actual facts, accurate and precise financial figures of historical data from 2003-2015. Hence, the secondary data figures are not based on human behavior or perceptions but on fact sheet real picture. The data collection procedure and detail is given in upcoming section of the study.

3.3. The Study Population

3.31. Primary Data Population

3.311. Population of Investment Decision Makers- The Equity Investors

The first classification of primary data population for the study consists of all the investors of PSX (Pakistan Stock Exchange). According to Chairman SECP (Daily Times, October 2012), the population of investors in Pakistan is around 200,000. Exactly, 244,753 investors are registered with the stock exchange as per the data provided by National Clearing Company Pakistan Limited. Each investor is assigned a UIN (Unique Identification Number). There are various categorizations of investors' profile (as consulted by stock exchange officials, 2017). The investors are classified as follows;

- **The individual investors,**
- **Corporate investors,**
- **Individual or corporate Brokerage houses,**
- **Mutual funds investors,**
- **Foreign and other Individuals.**

The complete breakdown of investors listed with the National Clearing Company is given in the following table 2. The study mainly focus the individual investors and some brokerage houses who are acting as agents of such individual investors.

Table 2: Investors Configuration Registered with National Clearing Company

	Unique Identification Numbers (UIN) registered till December 2016	
Sr. No.	**Security Name**	**Active UIN**
1	Individual	233,267
2	Corporate Company	1,637
3	Corporate/Individual Broker	316
4	Funds/Others	1,263
5	Foreigner Individual	8,270
	Total	244,753

Source: National Clearing Company Pakistan Limited-News Letter for December 2016

The active population of all categories of investors registered with the National Clearing Company as per the figure provided by published Newsletter of NNC at the end of year 2016 are described in the table 3 given below.

Table 3: *Table 2: Investors Configuration Registered with* ***National*** **Clearing Company** :
Active Client Codes Registered with National Clearing Company

	Registered Client Codes till December 2016	
Sr. No.	**UIN Type**	**Active Client Codes**
1	Individual	230,820
2	Corporate-Company	5,546
3	Corporate-Individual Broker	1,057
4	Funds-Others	8,578
5	Foreigner-Individual	8,630
	Total	254,631

Source: National Clearing Company Pakistan Limited-News Letter for December 2016

For the current study, the individual investors' population is considered on the basis of convenience to collect the study data sample.

3.312. Population of Financing Decision Makers- The Company Managers

The next stage supposed to collect the data from the finance managers of the companies. For the purpose of getting the response of managers involved in financial decision making of companies. The total population of non-financial sector companies, there are 436 non-financial sector; public limited companies listed at Karachi Stock Exchange (KSE) in 22 industries. Hence, the management involved in financing decision making of all the above stated i-e; 436 companies serves as population of financing decision makers to test their perceptions about study variables.

3.32. Secondary Data Population

The secondary time series data is comprised of 13 years for the study starting from 2003-2015. The population of the study consists of all the public limited companies listed on Karachi Stock Market of Pakistan. There are 664 companies listed on KSE operating in various industries which comprises of financial and non-financial sectors. Total listed sectors are 32 industries as per the data provided by website of Pakistan Stock Exchange which is comprised of financial and non-financial sectors.

3.4. Sample Size

The sample size is defined out of above mentioned population separately for the primary and secondary data given as follows;

3.41. Primary Data Sample

3.411. Sample size of investment decision makers- The Equity Investors

A sample of 300 questionnaires was employed for the study to be filled by the equity investors as Uma Sekaran (2003 & 2016) suggests 284 as a representative sample for the population of above 200,000. The collected questionnaires were sorted out and the incomplete forms were discarded. The actual population of the individual investors is less than that registered with National Clearing Company i-e 233,267 as one investor may have 2 or 3 investment accounts with different UIN. An individual or institutional investor may possess more than one unique identification code at the same time. Hence, the effective investor population is considered less than the registered number.

Some of the investors were directly accessed and the questionnaires were filled by one to one conversation and by providing them appropriate facilitation in understanding the financial terms used in the form. But the prescribed sample was not possible to be approached for the collection of required data as a large chunk of investors' population has shifted towards the online trading since a decade. The investors are provided personalized login accounts on web where they are able to carry on their transactions. Therefore, some of the questionnaires were filled with the help of brokerage houses with proper communication and briefings about the required data. It was again not possible to access the investors' online contact as the brokers are not allowed by legislation of SECP (Securities and Exchange Commission of Pakistan) to contact their clients or use their

contact addresses for any activity other than trading. Hence, the sampling technique used to collect the data is *non-probability sampling* by taking a convenient sample.

3.412. *Sample size of financing decision makers-the company managers*

For the response collection from the companies' finance managers, the data sample consists of 150 companies of non-financial sector including the 100 aggressive trading companies by using convenient sampling are selected as per the information[15] provided by Securities and Exchange Commission of Pakistan (SECP). Mostly the data is collected from the company offices located at Islamabad, Lahore and Karachi as most of the listed company head offices reside at Karachi.

Initially, in case of managers, the total population of non-financial sector companies listed at the Pakistan Stock Exchange was taken fully as sample. Hence, the sample size consisted of 436 non-financial sector public limited companies registered at Pakistan Stock Exchange (PSX) covered by 22 industries for the collection of primary data from the managers dealing with their financial decisions. While later on when the questionnaires for pilot testing were floated through emails and follow ups, the responses were negligible. The response rate for the survey conducted by email is less than that of mail. The methods used to formulate the mail survey are very different from those used for mail surveys making the response rate low in case of emails (Sheehan, 2001). As Kaplowitz, Hadlock and Levine (2004) propose 20.7% for email while 31.5% rate for mail survey. Matz (1999);

[15] A copy of Aggressive trading companies list provided by SECP (see annexure 'C').

Hendel & Matross, (2000) agree with the argument of previous research as the written forms get the higher response rate as compared to online surveys. The reason suggested by the authors is that the construction of a mail questionnaire demands motivation and enthusiasm of the respondent to seek his response. Hence, such questionnaire is developed in such a way that it may appeal the reader to respond.

An online questionnaire was designed to provide an ease to the respondents to fill it up. One of the reasons is that it's not the common practice in the behavior of people to timely respond to email or online web surveys. It's the common attitude that prevails in the country due to the psychological behavior of the people. It's the common practice in Europe or western countries that people as immediately respond to emails as they respond to the phone calls. But unfortunately the people are gradually getting comfortable with the use of internet technology. Therefore, it will take some time to adapt the change in their behaviors. Although the managers working in organizations are obliged to used internet and online stuff for professional use but at the back of their mind, the above mentioned psychological behavior still works. It acted as one of the causes behind negligible response rate on emails and online. Then, the mode of data collection was revised as the address list of companies included in the sample was acquired from the stock exchange officials after a tiring process and 200 questionnaires were posted to the companies. But only a 7% response was received out of which 2% questionnaires were still unfilled as they came back due to shifting of companies addresses. It was hardly possible to visit the companies' offices located in different cities all over the country. Due to such difficulties faced in the

process of data collection and poor response rate received, the data sample was reduced up to the 150 companies of non-financial sector including the 100 aggressive trading companies were selected as per the information provided by Securities and Exchange Commission of Pakistan (SECP). Mostly the data is collected from the company offices located at Islamabad, Lahore and Karachi as most of the listed company head offices reside at Karachi.

The sample size is adequate and considered reasonable for such type of studies. Green (1991) suggested a formula to calculate the reasonable sample size required. He suggests that if sample size meets the figure calculated by 50+8m where m= number of independent variables, it is sufficient for the relevant study. In both types of primary data, the sample size taken is a far above the requirement. The sample size also satisfies the good and very good rankings for AIPE (Accuracy in Parameter Estimation) in order to obtain accurate regression coefficients according to the suggested criteria by different authors (see Comfrey and Lee, 1992; Maxwell; 2000; Kelley & Maxwell; 2003 and Gul; 2014). The literature propose a 284 sample size is sufficient if the population exceeds 50000 (Sekaran and Bougie, 2010). The sample size used to seek the responses of equity investors is meeting the requirement of these authors. Harris (1985) establishes the minimum sample size required for any study as “50 + number of predictor variables” to conduct a regression analysis. If six or more predictors are used, 10 respondents per predictor are appropriate to conduct the research.

Some authors provide a statistical calculator to calculate the accurate sample size. As per the criteria recommended by Cohen (1988), West & Aiken (2003) and Soper (2014), the minimum sample size for this study is 156 with the predictor variable of financial leverage if the desired anticipated effect size *(f^2)* is 0.05, the probability statistics of 5 % with the explanatory power of 0.80. These are the ideal figures of statistics that conclude such sample size. But there are various others who recommend that 0.10 level of effect size i-e, f^2 is sufficient. By following such belief, the required sample for this study is calculated as 79 with the predictor variable (*cit:* http://www.danielsoper.com/statcalc/calculator.aspx?id=1). So, the sample size taken for analysis by the study increases the generalizability of the research to the whole population. Pedhazur & Schmelkin (1991) recommends 50 respondents for each factor are sufficient. On the other hand, Tabachnick & Fidell (1996) provide a minimum of 300 respondents are mandatory for conducting the factor analysis.

Hence, if all the viewpoints of authors discussed as above are summarized, the sample sizes used for conducting his study are appropriate and stand above the minimum sample size required to test the reliability and validity of the instruments.

3.42. Secondary Data Sample

The sample size consists of data from non-financial sector 436 public limited companies listed at Karachi Stock Exchange (KSE) in 22 non-financial sector industries from year 2003 to 2015. All companies except non-financial sector public limited companies listed at Karachi Stock Exchange (KSE) are excluded from the study.

The rationale for exclusion of financial sector companies form the data sample is that the financial sector's financial statement are designed as per the laws or ordinances governing particular financial intermediaries. The sources of funding for the financial sector are different from that of non-financial sector. For example, the insurance companies rely on premiums, the banks take deposits and mutual funds have their units issued for fund raising activities. Hence, the financing structure of the financial sector may differ from that of non-financial sector. This is the major reason that the financial sector is excluded from the sample of this study to have more reliable findings. Generally, the financing decisions for the non-financial sector are based on the proportion of debt and equity in their capital structure as the major sources of funding.

The selected sample is basically population sample as the whole non-financial sector is taken from the population. That helps to have generalized results applicable to other industries. The Sectoral data is taken to justify the effect of industry dummy in the model of research.

Following table 4 shows the industries lying in non-financial sector listed on Karachi Stock Exchange.

Table 4: ***List of industries included in the sample and dummies assigned***

1) "D_1" Textile composite

2) "D_2" Sugar and allied industries

3) "D_3" Cement

4) "D_4" Power generation and distribution

5) "D_5" Oil and gas marketing companies

6) "D_6" Oil and gas exploraton companies

7) "D_7" Refinery

8) "D_8" Automobile assembler

9) "D_9" Automobile parts and accessories

10) "D_{10}" Engineering

11) "D_{11}" Cable and electrical goods

12) "D_{12}" Technology and communication

13) "D_{13}" Transport

14) "D_{14}" Fertilizer

15) "D_{15}" Chemical

16) "D_{16}" Leather and tanneries

17) "D_{17}" Pharmaceuticals

18) "D_{18}" Tobacco

19) "D_{19}" Paper and board

20) "D_{20}" Vanaspati and allied industries

21) "D_{21}" Food and personal care products

22) "D_{22}" Glass and ceramis

3.5. Data Sources and Collection

The primary data for the study is gathered by using questionnaire surveys from the equity investors trading in the Pakistan Stock Market and managers of different companies included in the sample while the secondary data for the research is collected from various business & financial reports in the form of published data.

3.51. Primary Data Collection

A part of data collection is made on the basis of research instruments developed for conducting a research survey. The primary data was collected by using two types of survey instruments i-e, questionnaires; The first instrument relates to the responses

from investors while the second instrument pertains to the responses from Finance Managers.

The questionnaires distribution among the respondents stared from the month of August, 2014. The investors' questionnaires were floated at Islamabad and Karachi from time to time. The Islamabad and Lahore stock exchanges used to derive their value from the hub or Base Exchange which was supposed to be Karachi Stock Exchange. Later on the merger took place to flourish the growth of markets and the merged stock exchange used to be known as Pakistan Stock Exchange. While the questionnaire seeking responses from the companies manager was floated all over the country where the offices of the companies selected for sample reside.

Table 5: The Response Rate of Questionnaires

	Data Collection Categories	
Particulars	Financial Managers	Equity Investors
Total Distributed Questionnaires	150	300
Total Questionnaires Received	82	221
Percentage/Response Rate	54.67 %	73.67 %

The investors' data is collected starting from August, 2014 and he process continued till a year ahead. The reasons for the prolonged collection period are given in the chapter 1 under the heading of delimitations. The managers' data collection took more than year and started side by side of other questionnaire data process. A total of 300 questionnaires for equity investors was distributed. To collect a sample of 150 responses for managers, questionnaires more than the required sample were circulated to get a minimum of sample at least. The reason is again the difficulties in data collection for managers as listed above in chapter 1 under limitations.

The response rate is very important for the research to be unbiased as many surveyors began to question the general assumption of biased results with low response rates (see Curtin, Presser, & Singer, 2000; Groves, 2006; Massey & Tourangeau, 2013; Peytchev, 2013). Fosnacht, Sarraf, Howe and Peck (date n.a,) found that the population estimates with a low response rate resulting from a simulated sample are frequently same as the estimates formulated on high actual response rates. There exists no considerable difference between early and late respondents in research surveys exploring a range of subjects (Borg & Tuten, 2003; Lahaut et. al, 2003; Mond et al., 2004; Welch & Barlau, 2013). Every effort is made to get the required response rate by getting the sample questionnaires filled properly without a lot of incomplete responses. For investors, 221 questionnaires were received out of total 300 questionnaires with a response rate of 73.67% exactly or approximately 74%. In case of managers, the response rate is comparatively low

54.67% or approximately 55% as per the nature of the sample. 82 questionnaires out of total sample 150 are received with the reasonable responses. The details of response rate are summarized in the table 5. The incomplete questionnaires were discarded. As per the previous studies, the response rates by this research satisfy the conditions for the appropriate response rate.

Various elements may influence the response rates of the questionnaires. The size of the questionnaire is an important factor as the lengthy questionnaires comparatively get the low response rates or more incomplete responses. As it also happened initially in this study. Later on, the size of the questionnaires was squeezed after pilot testing. Yammarino, Skinner and Childers (1991) suggests that the lengthy questionnaires have decreased response rates. Some other authors like Tomasokovic-Devey et al. (1994) support the point of view. The lengthy questionnaires may not also get the required attention and concentration of the respondent particularly in answering the last statements.

Gul (2014) states the finding of Baruch (1999) that 55.6% was the response rate of 140 diversified papers spread over 175 studies. Such studies were published in the prestige journals e.g.; Academy of Management, Journal of International Business Studies and Journal of Applied Psychology from 1970's to 1990's. They found that the response rate is very low in case of high managerial positions and a decline in the response rate was observed over the years. The response of the top level managers declined to 38 percent over 20 years. This is true as per the response rate of this study in case of higher position

finance managers. The response rate of the personally distributed and administered questionnaires is comparatively high. In this study same is the case for the better response rate of investors and managers. Welch & Barlau (2013) states a range of 26% to 92% for the response rate with the repeated or median 59%. Moreover, they suggest that reporting the response rate is not the practice in the studies but usually the rates reported lie between 50% and 65%.

The response for the current study is acceptable and it falls within the appropriate range as per the criteria suggested by the researchers. It is important to mention that the response rates discussed above are given with the reference to the behavioral and social or management and business studies. It is only true for the mentioned disciplines. To get the desired response rate in this study, the questionnaire was personally administered and communicated to the respondent to enhance his ease in understanding the questionnaire. The questionnaire was designed precise but comprehensive covering the complete range of data required in order to keep the length reasonable and avoid the undue lengthy statements and instrument. To ensure the better response rate for the managers' questionnaire in other cities, the field experts personally visited the managers and elaborated the questionnaire to them. The process took more than a year. Regular follow ups were made from time to time.

3.52. Secondary Data Collection

The other part of the data for research is secondary data and is collected from the business reports and published data. Sources of data include Karachi Stock

Exchange/ Pakistan Stock Exchange analysis reports, the data published by State Banks of Pakistan (the financial Statement Analysis), the annual reports, business reports, data professionals and official websites of the companies.

3.6. The Research Instrument

A questionnaire refers to the source of data collection about the perceptions, emotions and viewpoints of different individuals included in the sample of a study. A questionnaire is a planned set of assumptions and statements which may be properly structured or formal document or unstructured i-e, an informal document. Dictionary of Cambridge defines a questionnaire as a list of questions asked by various people so that the information can be gathered about something. A set of written or printed questions with a choice of responses, formulated for the purpose of statistical study a survey (Oxford Dictionary). While the Reverse dictionary describes a questionnaire as a written list of questions answered by a different people to deliver information to formulate a report or a survey. There are two questionnaires formulated to gather the responses of the respondents.

- One questionnaire is aimed at collecting the responses of investors making investments at Pakistan Stock Exchange
- While other survey form seeks the opinions of the managers involved in financial decisions of the companies listed at Pakistan Stock Exchange previously known as Karachi Stock Exchange.

The research instruments are based on five point Likert scale seeking the responses ranging from strongly disagree to strongly agree as 1=strongly disagree while 5=strongly agree. Some reverse queries were incorporated in the questionnaire to ensure the concentration of respondents while filling out the survey form. The survey forms are properly structured questionnaires with close ended questions based on five point Likert scale criteria. The first part of the questionnaires consists of the demographics of the respondents in order to get an idea about their general profile. The other part is aimed at gathering their responses about the predictor variables and the predicted ones. The questionnaires used for the research are annexed at the end (see annexure A & B).

The questionnaires used for the research is developed by employing the ideas of different researchers in the literature discussed earlier. It is not fully adapted like a replica but different questionnaires have been consulted for its formulation in the areas of corporate finance and market finance. The pilot testing process continued from time to time and required modifications were made to improve the reliability and validity of the questionnaire until the desired results were obtained. The references for the basis of research instrument are given in detail (see bibliography). The instruments is completely modified as per the requirements of the study and different researchers were consulted for review.

3.7. Research Variables

The variable description for the study is divided into two categories. The first one relates to the primary data collection. It is comprised of operational definitions of variables in the context of historical literature review. Although the literature review section represents the variable description in detail yet a brief overview is given here. The second classification of data is a 13 years' time series secondary data gathered over the period of 2003 to 2015. The operationalization of variables in such case is also based on literature and provided in this section of the study.

3.71. Primary Data Variables

3.711. Section1-Demographics

The demographics consists of gender, age, qualification, profession and experience of the equity investors making their investment decisions. Such variables are specified in the questionnaire of the study in first section.

3.712. Section 2- Variables in the model of research

The theoretical framework of the study includes the independent variable of financial Leverage (LEV) and the dependent variable that is stock market response (SMR). The dependent variable stock market response has two dimensions i-e; the stock market return (SMRN) and stock market reaction (SMRC). There are also some control variables

used in the study. They include Cash flow effect (CF), firm size (FS), growth of the firm (FG), earning per share (EPS) and the industry effect (ID).

The questionnaire included total of 41 items to measure the variables but later on 35 items were finalized after checking the reliability and validity of the data during the pilot testing process. There are 35 questions other than demographics regarding the predictor and predicted variables in the questionnaire. The questionnaire o be filled by equity investors includes 5 items related to leverage "LEV", 5 items related to stock market reaction "SMRC" and stock market returns "SMRN" each, 4 items to measure the cash flow effect "CF", 5 items for industry effect "ID", 4 items for corporate earnings "EPS", 4 items for firm size "FS" and 4 items to measure the firm growth "FG".

The questionnaire filled by financial managers of the managers include 37 questions in total out which 34 questions relate to the variables stated in the theoretical framework and 3 questions relate to the basic demographics. There are 5 items related to the financial leverage "LEV", while 4 items are related to the stock market reaction "SMRC", stock market returns "SMRN", cash flow effect "CF", corporate earnings "EPS", firm size "FS", firm growth "FG" each while the remainder of 5 items relate to the industry effect "ID". The validity and reliability of the variables stated here are given in the statistical results.

3.72. Secondary Data Variables

The variables stated in the model are described in the form of different proxies. The proxies used to define and operationalize the variables are detailed in the table 6. The variables details are summarized as follows:

Table 6: List of Variables and Indicators Measuring Such Variables

Independent Variable: '**Leverage'** represented by debt to equity ratio & total debt to total capitalization ratios.

- Debt-to-Equity Ratio = Debt / Common Equity
- Debt to Total Capitalization = Total Debt / Total Capitalization (Equity + Long Term Debt+ Current Liabilities)

Dependent Variable: 'Stock Market Response' represented by stock market reaction measured by Market to book-value ratio and stock market returns of firm's stock.

- Market to book-value ratios = Maris Ratio = MBV = Market Value Per Share / Book-Value Per Share
- Stock market returns measured by;
  - Earning Yield = EY= current market price-previous market price / previous market price * 100
  - Company's Stock return=Risk free rate + **BETA** (market rate - risk free rate)

Stock Market Return= RR= Earnings per share (EPS)/Market Price per share (MPS)

- Firm Size measure by market capitalization = FS= LOG (Total assets)
- Firm Growth measured by % sales growth per year = FG = current year sales-previous year sales / previous year sales * 100
- Industry effect measured by employing industry dummies= ID
- Growth in Cash Flows = CF = current year CF-previous year CF / previous year CF * 100
- Corporate earnings = EPS = Total earning after tax available for common stock holders / No. of shares outstanding

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3.8. The design Process of Instrument

An Investment planning questionnaire was used for formulization of some questions. Such questionnaire is designed by the Capital Management Group located and originated in Chicago since 2001. Another instrument formed by the professional experts in investment finance was used for getting an idea about basic questions of the topic under discussion. Vanguard Investors Questionnaire of Vanguard group incorporation residing in Canada was reviewed. A questionnaire of investment Preferences from a website is reviewed to take an idea to formulate the instrument statements. (Cit: "http://shodhganga.inflibnet.ac.in/bitstream/10603/49147/15/15_appendix.pdf").

Jonathan McDonnell is regulated by the Central Bank of Ireland. An Investment Planning Questionnaire designed by their experts is used to adapt some relevant questions.

Karadeniz, Kandır, Iskenderoğlu and Onal (2011) conducted a research on capital structure decisions In Turkey. His findings and questions statements proved to be helpful to design the questionnaire for this research particularly about firm size and capital structure decisions. *The idea for formulating the study instrument is initially based on such survey forms, the literature available on the concepts of variables and the measurement criteria used in literature.*

The literature lacks in the survey based researches to determine the relationship of stated study variables. To fill out such gap, the points on which the authors measure the variables quantitatively plus the general perception of investors about the variable concepts (how do they perceive) are taken as a base to form statements of the instrument as they are not aware of technical finance.

Finally, the instrument is designed on five points likert scale from literature and modified as per the opinions of field experts to verify the content validity. Hence, the instrument address the financial concepts in simple statements that the investors could understand and the respondents were guided properly about the terms used in the instrument to ensure the investors; literacy about the finance terms.

As it is mentioned in the limitations that the local investors are not technically literate of the finance concepts. Such limitation was overcome by illustrating the respondent meanings of each concept asked verbally in laymen language. The questionnaires were personally administered to ensure the reliability. In January 2009,

Sharon Collard working at Personal Finance Research Centre of University of Bristol provided a brief review of research Final report on “Individual investment behavior” which is considered helpful in the study questionnaire design. Dr Stuart Archbold from Kingston University, London and Professor Ioannis Laziridis from University of Macedonia, Thessaloniki presented a paper at the 17th Annual Conference held in 2010 at Barcelona in which they elaborated the capital structure decisions and the process. They conducted a survey at UK and Greece to provide an evidence. Similarly, Tempel presented his report with Ir. H. Kroon and Prof. Dr. Bilderbeek at University of Twente in 2011, related to the influence of leverage on investment including a qualitative and quantitative analysis of investment decisions. This article proved to be useful as a consulting literature to formulate a basis of questionnaire. His study took into account the variables of growth opportunities, value, cash flow, productivity and asset base along with leverage.

Moreover, Ibrahima, Nor, Ibrahim et al. (date n.a) worked on capital structure decisions and revealed an evidence from Malaysia after 2010 in recent years. The study included a complete survey about the decisions taken on capital structure. Another study on high growth Small and medium scale enterprises was carried out on NGM Equity located in Sweden by Persson under the supervision of Cornelius in year 2010. Both these studies are of great support while formulating the questionnaire for the managerial decisions taken about the capital structure and financial leverage of the firms.

The guidance retrieved from the above mentioned supporting material helped out to adapt some of the questions as they are while some others with modifications

required to make them understandable for local respondents. The managers' questionnaire is designed by using the similar aspects with the reference to financing decisions their companies make as the other side of funds related to financing. The questions given the reference literature are either adapted from the questionnaires provided or the findings of research are transformed into questions. The literature review was also helpful to formulate the questionnaire. The survey forms/questionnaires are thoroughly reviewed by the field experts and some researchers for improvement and are modified finally as per their recommendations.

Initially when the pilot testing was carried out, the response of the respondents provoked to change some of the questions into more simple to make the language easily understandable. Although some of the financial terms and other statements were translated into simple language yet there were some jargons which were difficult to translate into simple English. But verbal help was provided to the respondents so that they may understand. In addition, some reverse coded or contrary statements were also included in the questionnaire to make the respondent concentrate thoroughly as the process increases the "reliability and validity" of the instrument. Prior to get the whole sample filled, the reliability and validity of the instrument was checked in pilot testing. Some of the items were omitted and the final draft of questionnaire was floated after getting satisfied with the pilot testing responses.

3.9. Measurement of Variables

The calculation of variables in case of primary and secondary data is done on the basis of literature review. Different authors used various operational statistical definitions with modifications of variables as per requirement. The part of accounting information for decision making is not implicit. The information is required for the allocation of available resources in formulating economic decisions. Such economic information may be gathered via accounting information displayed in the financial statements. The financial ratio provides the information about advanced techniques, models and the statistical tools to predict the financial status, kind of business events and other attributes of businesses. They can also be used to predict and state suggestions for the future. Hence, financial ratio is widely used for determining relation between the items present in this form and for evaluating business unit (Amini, 2005). Thus, it can be stated that accounting information is considered as a base for taking decisions in capital market. It is an extremely valuable information for investors as accounting information contains informative content (Vartz and Zimerman, 1986). The computation of variables in detail is given as follows;

3.91. Financial Leverage

A financial structure of the company limited to the shares and bonds may overlook a higher extent of substitutability among the various types of debt. Therefore, a wider concept incorporates all the liabilities and owners' equity into the firm's capital structure

(Schwartz, 1959). The author further suggests the ratio of total debt to total net worth as the finest single determinant of gross risk. Rajan and Zingales (1995) and Booth et al. (2001) provide that the predictors of firm's capital structure are highly sensitive to the choice of financial leverage.

An extensive definition of stock leverage may be described as the ratio of total liabilities to total assets. It can be seemed as an alternative for the residual claim of shareholders when liquidation takes place. However, it does not provide an adequate measure of looking at the firm's risk of default in near future (Rajan & Zingales, 1995).

Financial leverage states to the extent describing the firm reliance on debt (Hillier et al., 2010). Another author Pandya (2016) explains the financial leverage as the sensitivity of company's EPS to the change in operating income as a consequence of a change in capital structure. The leverage is also termed as the degree of debt financing that a company utilizes to increase its EPS. The debt ratio also known as the debt to total assets ratio refers to the quantity of debt raised against the value of total assets residing with the company's business. This ratio differs slightly from the debt to equity ratio as it encounters the value of debt to the sum of equity and total debt. Mule (2015) exhibits leverage as an indication of debt usage compared to owners' equity in the financial structure of the firms.

3.911. Primary Data Aspect

The financial leverage (LEV) s measured by using 5 items based on the dimensions including risk of firm, level of borrowing, chances of bankruptcy, borrowing to total assets and proportional debt to equity.

Although leverage is not being adequately measured by a questionnaire method, hence, it makes hard to determine the dimensions of leverage. Yet the dimensions to measure LEV in the instrument designed are specified on the basis of concepts defined by previous authors. For instance, Badi and Minoei (2015) observes that the debt to equity ratio refers to the amount of funds raised to the relevant equity. Generally, a higher value of debt equity ratio specifies a higher degree of financial leverage and thus characterizes a "higher degree of financial risk". Schwartz (1959) further suggests the ratio of total debt to total net worth as the finest single determinant of "gross risk". Such logic by the authors provide a base to include "risk of the firm" as a dimension of leverage. Pandya (2016) explains the financial leverage as the sensitivity of company's EPS to the change in operating income as a consequence of a change in capital structure.

The leverage is also termed as the "degree of debt" financing that a company utilizes to increase its EPS. Here, the "degree of debt" refers to the "level of borrowing" which is used as a valid dimension to measure LEV by the instrument. The borrowing to total assets is used as leverage ratio by Van Horne (2009)[16] and proportional debt to equity

[16] Fundamentals of Financial Management (13th edition)
Fundamentals of Financial Management by James C. Van Horne, John M. Wachowicz, FT Prentice Hall, Harlow, 2009.

is used as dimension of leverage as Schwartz (1959) provides that the financial leverage refers to the total liabilities and owners' equity that combine to formulate the firm's capital structure. Further, the author explains that the ratio of all the liabilities to the net worth is the best single determining factor of gross risk. According MM theory, tax deductible interest payments provide a positive motivation to induct the leverage. However, the increased use of leverage increases the probability of bankruptcy with its associated costs which, in turn, provides a negative inducement for leverage. As the chances of bankruptcy may increase with extensive use of leverage, therefore, "chances of bankruptcy" are used as a dimension of leverage in survey instrument.

3.912. Secondary Data Aspect

The firm leverage is termed as the ratio calculated by measuring the proportion of firm's total liabilities to its total assets (Rajan and Zingales, 1995; Pandya, 2004). Financial leverage is defined as the degree to which the company relies on the debt (Hillier et al, 2010).The ratio of book value of total debt to book value of total assets is used to measure the book leverage by Laurea (2012). Badi and Minoei's (2015) debt to equity ratio shows raise in fund's quantity relevant to equity capital. Generally, a high debt equity ratio reveals high financial leverage representing a high financial risk. According to Mule (2015), leverage indicates the level of debt usage as compared to equity in a firm's financing structure. The broader indicators used to measure the leverage as discussed in the above literature are;

i. Debt equity ratio

According to Panday (2004), debt to equity ratio shows the amount of funds generated in relation to the equity capital. A higher debt equity ratio reveals high financial leverage representing greater financial risk.

ii. Debt ratio

The debt ratio reveals the total amount of debt finances gathered against the total assets invested in a business. It slightly differs from debt equity ratio as it is related to the amount of debt in relation to summation of total equity and total debt.

Keeping in view, the proxies used for the financial leverage by the various authors in literature stated above, following formulas are designed to measure the financial leverage for this study;

Debt-to-Equity Ratio = Debt / Common Equity

Debt to Total Capitalization = Total Debt / Total Capitalization (Equity + Long Term Debt+ Current Liabilities)

3.92. Stock Market Response

For this study, the 'Stock Market Response' is split into two dimensions of stock market reaction and stock market returns of firm's stock. Many of the authors described the market valuation for the key determinants of the capital structure. Moridipour

and Farrahipour (2013) elaborates the equity value of the market to the equity book value as a reflection of return on equity as it affects the long term shareholder value. The market value to the book value also measures the return on assets applicable in a business entity. The price to earnings ratio is another determinant used to estimate the market response as it elucidates the growth index book value whereas the stock price to book value ratio indicates the book value growth.

Either a market or a book value may be used to illustrate the value of equity capital. Shim and Siegel (2000) maintains that a market information is vital to be incorporated from a theoretical point of view as it accommodates all the available information in the market price. Hence, as a well determined tool, the market valuation may be used as a key contributing factor towards a capital structure

Peterkort and Nielsen (2005) argues that the market value to book value ratio serves as a risk factor in the capital structure of the firm. The authors' opinion has been established on the basis of expected connection between the financial risk and determinants of capital structure. The market value of equity serves as basis to initiate such association. Furthermore, the authors agree on an association between the asset risk and determinants of capital structure where the book value of equity serve as a base. Eltayeb (2011) illustrates that the market value to book describes the financial leverage by implying the market to book ratio rather than the consideration of just stock market price for determining the valuation.

Based on the literature study earlier, it can be inferred that the stock price movements, market to book valuations and return on equity, the stock market response can be split into two broader determinants of Stock market reaction (SMRC) and the Stock market returns (SMRN). The stock market reaction covers the market measures to the book measures of performance. It estimates how the market responds to the company performance. Whereas, the stock market returns considers the earnings that investors can earn as a result of such change in maret valuation.

3.921. Stock Market Reaction

Baker & Wurgler (2002) mentions that the matrices based on market meet the deficiency of employing just the share price for the market valuation as the price volatility observations are insufficient to determine the relevant market and accounting values for net assets. The market value to book value ratio has been applied as a proxy for the market share price.

a. Primary Data Aspect

The stock market reaction (SMRC) is estimated by using 4 items and is based on dimensions of rate of return, rising market value consideration by investors. Previously the stock market reaction is also measured by the "stock market price" or by using the market returns (see Cheng, Visaltanachoti, & Kesayan, 2005; Kim and Stulz, 1992; Smith, 1986; Myers and Majluf, 1984). Shim & Siegel (2000) document that market information is

essential to be included as the theory suggests because it takes into account the available information in the market value.

b. Secondary Data Aspect

Pauwels et al. (2004) endorses the market to book ratio as a ratio of market value to book value of common equity. According to Mule (2015), the premium paid by the investors for the company assets is measured by the market to book ratio. Hence, the market to book ratio indicates the market value to the total assets of the firm relative to the book value of same total assets.

A determinant of cheapness of the stock is loosely observed as market value to book value ratio (Shleifer, 2000). Palliam (2006); Al-Tamimi (2007); Christopher et al. (2009) uses the market price per share as a predicted variable with reference to the share price relevance. Moreover, Garman and Forgue (2012) express the market to book ratio as the price to book ratio that indicates the premium paid by an investor for the net assets value of a company. Pratt (2011) describes the market value to book ratio may be obtained by dividing the stock market value of a company by the book value of share. The ratios resulting equal to 1 specify the company's net book value perceived by the market as a real replica of a company's fair and true value.

Therefore, the market o book ratio or the Marris ratio for this study may be derived as follows based on the literature and other authors' opinions;

Market to book-value ratio /Maris Ratio = MBV = Market Value per Share / Book-Value per Share

3.922. Stock market returns

Mingfang & Simerly (2000) reports that the firm's capital structure is essential to evaluate the firm's ability to efficiently cope up with the competitive environment. The capital structure of the firms also influence the investors' returns. An approach given by the researchers define the shareholders returns are presented as the stock returns over the risk-free rate (Schwartz, 1959; Fama and French, 1992).

a. Primary Data Aspect

The stock market returns (SMRN) is estimated by using 5 items in investors' questionnaire while 4 items in manager's questionnaire. It is based on dimensions of earning yield and investors' expected rate of return, rising market value consideration by investors. Such dimensions are set based on the literature as Duy and Phuoc (2016) estimates the stock return by dividing the sum of current stock market price and shareholders' dividend by previous stock market price. This indicates an earning yield to the investors due to fluctuation of stock market prices and the dividend represents the returns of investors. Previously, Shim & Siegel (2000) document that market information is essential to be included as the theory suggests because it takes into account the available information in the market value. Fama and French (1993) confirms the book to market effect to estimate stock returns and also recognize three factors of stock market that determine the observed stock returns; an overall market factor and factors associated with to firm size and market to book value. According to Ferideyon (2006), the risk premium returns are dependent on book to price ratio in addition to other variables of his study

b. Secondary Data Aspect

Arditti (1967) explains returns as the geometric mean of returns. However, the studies asset pricing models propose that the variation in cross sectional returns of stocks is significantly associated with the firm's book to market value of equity. Moreover, such studies elucidate that the ratio of book value to market value still acts as a significant indicator of stock returns even if the beta and size differences are kept controlled. Such phenomena is commonly classified as the value anomaly or the value effect (Banko, Conover and Jensen, 2006).

The "Capital Asset Pricing Model" was initiated by Sharpe in 1964 to compute the cost of equity in terms of the required rate of return. The basic assumption of CAPM is an existence of a linear and positive relationship between the expected return and the systematic risk. The model also assumes that market risk premium is the only element that describes the variations happening in the expected returns.

- **Company's Stock return**=Risk free rate + **BETA** (market rate - risk free rate)

Initial testing for the selection of appropriate model for the research was done by comparing various models used in literature by different authors. The CAPM Model which is commonly used to calculate the equity investors' expected or the required rate of return, was initially tested on the study data.

Later on, when the secondary data was regressed by applying the pooled regression models in e-views (the data analysis software), it was found that the CAPM model was miss specified. The model proved to be inappropriate to yield the desired outcomes. The

statistically calculated values were very small and proved to be insufficient to measure the impact of financial leverage with certain control variables on stock market returns by CAPM. The inadequate and negligible value of regression coefficient was obtained but found to be significant.

The literature also report certain criticism on CAPM model. It has been gone through a series of criticism by certain authors as it lacks the adequacy of measuring the true expected return or the risk premium of the equity investors. DeBondt and Thaler (1985) reveal that a reversal may take place in case of long term returns and the short term returns tend to continue (Jegadeesh and Titman, 1993). Banz (1981) reports a size effect, while Basu (1983) predicts an effect of earnings-price effect. Some other authors propose an effect of book to market equity (Rosenberg, Reid, and Lanstein, 1985). Such patterns are not depicted by the CAPM and overlooked in the observed stock returns.

CAPM assumes that the expected returns follow a normal distribution, which may not be true usually in the case of small size and more volatile emerging markets (Raza, 2018). There exist inevitable evidence in literature that CAPM may be inappropriate model to be used to determine the cost of equity in the emerging economies like Pakistan. As Bekaert & Harvey (2002); Sabal (2004) states one of the major causes that the emerging economies prove to be more volatile, smaller in size and they are less integrated when contrasted with the developed economies. Therefore, Solinik (1974) suggests that CAPM may not be applied to serve the emerging and developed economies at the same time. Furthermore, the more skewed returns than the predicted ones by CAPM serves as a

limitation in emerging economies. Consequently, mean-variance CAPM outcomes demonstrate a weak estimation of cost of equity in the emerging markets. So, investors do not like the below side deviation than that of upside. Therefore, Estrada (2007) exposes a strong argument for the replacement of total risk emerge against the downside risk while estimating the required rate of return particularly in emerging markets. Hence, CAPM was disregarded to be considered as a proxy of stock market returns.

The struggle for finding out the appropriate indicator to estimate the stock market return continued. A literature study neither develops the elements of multiple capital structure choices nor the variation in capital structures of firms over time but provides the impact of a firm's capital structure on its cumulative abnormal returns. In such situation, the distinctive risk factors used commonly for investments are controlled. Such risk factors incorporate the price to earnings ratio and size (see Banz, 1981; Chan and Chen, 1991); the book value to market value (see Chan, Hamao & Lakonishok, 1991) and a combination of both ratios involving the beta (see Fama & French, 1992; 1996).

However, Srinivasan et al. (2009) elaborates the Stock returns as the change in the total investment value in an ordinary action over time with the dollar initial investment. Market value per share is considered to be the dependent variable in stock price literature (Palliam, 2006; Al-Tamimi, 2007 and Christopher et al. 2009). According to Ferideyon (2006), the period 1998-2003 revealed that risk premium returns is dependent on size and book to price ratio while the other variables including national impurity output, inflation, advantage rate level affect stock returns.

According to Mule (2015), market to book ratio is used to determine the premium that an investor pays for the assets of a firm. It is the ratio of market to the firm' assets as compared to the book value of the similar assets. The stock returns are calculated by taking the natural log of the current closing price of the ith stock return with the previous day closing price of ith stock return. Keeping in view, the above mentioned and other studies in literature, theoretical models and the formulas designed by financial experts, following formulas are derived for the proxies measuring the stock market returns in this study;

- **Earning Yield** = EY= current market price-previous market price / previous market price * 100

The above mentioned earning yield rate was applied to measure the stock market returns and regressed against independent variable of the study leverage. The equation reveal insignificant results with negligible regression coefficients. Hence, the proxy to estimate the stock market returns was revised and derived out of the dividend discount model as;

Price per share = D_0 (1+g) / Ke-g……equation (a)

Where,

D_0=current Dividend

g=growth rate

Ke=Rate of return

The current dividend is taken equal to earning per share with an assumption that the firm compensates its investors for their earned income in the form of dividends in the current year. The reason can be justified as the total amount of EPS represents the real earning which belongs to investors either it is distributed in the form of dividends or it goes to reserves. Hence, the current dividend becomes equal to the current earning per share and the growth equals zero, then,

D_0= EPS (current earning per share) and g=0

By substituting the values of D_0 and g in equation (a),

Price per share = EPS / Ke……equation (b)

By rearranging the equation (b), the rate of return equates the earning per share to market price per share as follows,

Rate of Return (Ke) = EPS / Market Price per share (MPS)

The above mentioned relationship of earning per share (EPS) and market price per share (MPS) is also termed as earning to price ratio or the earning yield ratio. It determines the yield that investors are realizing out of the increase in market price of stocks. In other words, the ration also measures the actual return the investors are getting in the company's earnings for the increase in market price. For instance, if the investor purchase a company's share for a certain price today, what percentage of earning he will receive at

the time of earning/dividends distribution by the company. Therefore, the ratio equates the return of investors they are getting at the end of financial period as a reward for certain investment today in the company's stock.

The earning yield ratio may also be obtained by Return on Equity of the firm.

ROE = Earnings / Book Value----------equation 1

The earnings yield ratio is also relevant to ROE (return on equity ratio), as it basically represents the earnings of a firm per book value, and may be calculated with the multiplication of the earnings yield ratio (denoted by E/P) and the market value (price) to book value ratio (P/B).

Return on Equity

$$\mathbf{ROE} = \frac{\mathbf{E}}{\mathbf{P}} \times \frac{\mathbf{P}}{\mathbf{B}} = \frac{\mathbf{E}}{\mathbf{B}}$$ ---------equation 2

Hence, the share price in the denominator and the numerator of in the 2nd equation given above cancel with each other, which makes the right-hand side of the 1st equation equals to the other one. Therefore, it proves that both the equations are equal. Solving for the earning to price (E/P) in the equation (2) by dividing both sides by price to book (P/B), the earning to price ratio is given as follows;

E/P = ROE / (P/B)

Where

E=Earnings

P=Stock Price

B = Book Value

The researchers in literature confirm that the earnings-to-price (E/P, the earnings yield) ratio predicts stock returns (see Basu, 1977 and 1983; Jaffe, Keim, and Westerfield, 1989). Ball and Brown (1978) pose that the earning yield represent the required rate of return for risk. Moreover, Dubinsky and Johannes (2006) estimates that the E/P ratio prices the risk in expected earnings.

Hence, based on the above discussion and justifications to find the appropriate proxy to determine the stock market returns, finally the earnings to price ration commonly known as earning yield ratio is used to measure the stock market returns for the study.

Stock Market Return= RR= Earnings per share (EPS)/Market Price per share (MPS)

3.93. Control Variables

Control variables are signified by size, sales growth, corporate earnings, growth in cash flows and industry effect. Gallizoand Salvador (2006) observed the relevance of accounting variables for the development of a firm's share price particularly with the effect of book value and the cash flows. He examined the large sample of 2164 firms enlisted with NYSE by using a hierarchical Bayesian analysis approach for the empirical results.

The findings of the study affirmed that the firm size and asset turnover proved to be the most value relevant variables.

Florou and Chalevas (2010) examines the impact of investment, financial management and operational ratios on stock market returns. He employs the sample of 861 firms with annual observations at Athens Stock Exchange by the way of applying a cross sectional analysis. The authors reveal that the stock returns are affected by the operational performance including the growth opportunities, financial leverage, return on assets, the total asset turnover and net profit margin and the firm's tendency to generate productivity and sales.

Some authors argue that the key variable in determining the stock market return is considered as cash flow which is highly associated with the firm's size and the total assets turnover. Furthermore, they illustrate that the asset turnover is essential for the young companies while the book value becomes more important when the firm gets older. For such kind of firms, a lesser amount of investments is necessary to meet the required level of revenues (Biddle et al., 1997).

Raymar (1993) and Dierkerns (1991) state that the financial leverage and the growth opportunities have gained a little consideration in empirical studies so far. To examine the stock price reaction, the sample is gathered from equity issuance in Finnish Stock Market. Their paper observes empirically the effect of financial leverage and the growth opportunities on stock market reaction to the issuance of equity.

Pandey (2001) delivers that the firms who experience a rapid growth in their sales often require an expansion of their fixed assets. The firms who enjoy high growth (where sales growth is used as a proxy for growth opportunities) demonstrate an increased requirement for funds and tend to retain more reserves.

Chen and Zhao (2006) worked on the data of more than 88 percent of COMPUSTAT firms and article a non monotonic positive association between market value to book value ratio (an extensively used proxy for growth opportunities) and the firm's financial leverage.

Chittenden et al., (1996); Coleman & Cole (1999) and Al-Sakran (2001) notice the factors determining the choice if firm's capital structure. They found that growth, the structure of assets, uniqueness, firm size, industry classification, volatility, and firm's earnings are the most prominent factors that contribute towards the choice of capital structure of the firms.

The financial leverage or the firm's capital structure builds complex relationships with a number of dynamics. Therefore, the management needs to identify and consider the practical factors playing the vital role rather than just focusing on the targeted leverage ratios or the capital structure. Some key determinants of a firm's financial leverage in literature are identified as profitability, opportunities growth rate, the income taxes, the firm size, ownership structure of the firm, the pecking order theory and the firm's asset tangibility.

3.94. Firm Size

Suhaila, Mat and Wan (2008) inspect the determining factors of a firm's capital structure with a predicted variable of debt ratio. They found that the firm growth, the firm size, liquidity ratio and interest coverage proved to be the most visible contributing factors towards firm's capital structure.

9.941. Primary Data Aspect

The firm size (FS) is determined by using 4 items by using the dimensions of companies' capitalization and bankruptcy. Berk (1997) used an approach of three indicators to measure the size effect; the market capitalization, book value ad sales while Okada (2006) suggests that the credit risk premium and the liquidity premium are the factors that generate the size effect as the companies with less book value and sales possess relatively higher bankruptcy risk. On the other hand, the stock liquidity of a companies with less book value and sales is low which increases the cost to conduct arbitrage for the investors. Marsh (1982) states that small size companies are more likely to demonstrate more reliance on debt for their funds requirements as they get a limited access to the equity capital market.

9.942. Secondary Data Aspect

The literature studies enlightens a positive relationship of financial leverage with the firm's assets. In literature, the firm size is determined based on market capitalization (see for instance Berk, 1997) as;

Market value of equity = Market value per share *Number of outstanding shares

While Arnott, Hsu and Moore (2005) reveal that the firm size should not be determined on based on market index as it overlooks the fundamental value of the firms but real indicators of book value or sales. Previously, the firm assets are also used as the proxy to determine the firm size. Myers (1977) opinion that tangible assets i-e, fixed assets tend to support a higher level of debt as compared to the intangible assets like growth opportunities. Williamson (1988) and Harris (1994) argue that the assets of the firm can be redeployed when their intrinsic values are closed as they become less specific. Hence, the assets of the firm can be employed to pledge as a security or collateral to decrease the potential agency costs related to the usage of debt. A positive relationship of financial leverage with the firm's assets is confirmed by the literature. Therefore, The firm size is represented as follows for the current study which is based on the literature review presented in chapter 2;

Firm size = FS= LOG (Total assets)

3.95. Firm Growth

Modigliani & Miller (1958) established a positive relationship between a firm’s debt preference and growth opportunities for a capital structure decision. With the discovery of some foremost growth opportunities, the firm owners may not choose to finance by raising equity as the ruling price as such value may not be successful to build new ventures.

The theorists establish a positive association between the issuance of equity and the stock market reaction with several proxies of growth opportunities (see Dierken, 1991; Pilotte, 1992; Denis, 1994; Burton et al., 2001). According to Mc Laughlin et al. (1988); Gombola et al. (1998) and Smith et al. (1992), the stock market response for the equity issuance of high growth firms is more negative than that of low growth firms.

9.951. Primary Data Aspect

The firm growth is measured by asking 4 questions measured by dimensions of productivity, chances of loss and bankruptcy as suggested by literature. The indicators that determine the firm's growth are stock price, sales and revenue, capacity of production, productivity value, and production value added (Delmar, 1997 & Ardishvili et al., 1998). First Ricardian Theory (1817); Jang & Park (2011) examined that the rate of previous profit is the measure of current growth rate. Following the "pecking order theory" of financing introduced by Myers and Majluf (1984), Heshmati (2001) and Honjo & Harada (2006) identified leverage as determinant of firm's growth.

9.952. Secondary Data Aspect

Delmar (1997) & Ardishvili et al. (1998) observe indicators of growth from the empirical literature. These determinants include the financial value or stock market value, the number of employees, sales and revenue, productivity capacity, production value, production value added.

Daniel, Hirshleifer, and Subrahmanyam (2001) reports a stronger value effect for the firm's stock with large proportion of intangible assets as these firms are solid to the value. Chan, Lakonishok, and Sougiannis (2001) support the judgments of the above authors. Bany-Ariffin, Fauzias and McGowan (2010) supports the statement in his article. The firm growth is measured by the authors in literature as follows;

Growth in Firms investments = GI =firm's total expenditure on fixed assets / total assets

As the firm size in the model of this study is determined by taking the natural logarithm of total assets, hence, the proxy for sales growth used in this study is expressed as follows;

Growth measured by % sales growth per year = FG = current year sales-previous year sales / previous year sales * 100

3.96. Industry effect

According to the corporate finance theory the industry defines the expected return on equity (Hillier et al., 2008). Frank and Goyal (2009) states that the firms frequently employ the average industry or the median leverage ratio as a benchmark, so the industry is expected to affect the financial leverage of the firms.

3.961. Primary Data Aspect

The industry effect is measured by 5 items collectively based on the dimensions of industry risk, industry price volatility and chances of bankruptcy in the

relevant industry. Moskowitz and Grinblatt (1999) observe maximum momentum anomaly as a outcome of to the industry element of the stock market return. The industry describes the expected return on equity as the corporate finance theory provides (Hillier et al., 2008) and such return is the function of industry risk. Likewise, Hadlock & James (2002) and Ross (2010) assert that a high volatility in stock return may show the investors' uncertainty about the fundamental firm value or the firms reveal information asymmetry to a larger extent to outside investors.

3.962. Secondary Data Aspect

The industry effect in this study is measured by taking the industry dummies in the data. The dummy variables are the discrete variables taking the value of '0' or '1' usually termed as 'on' and 'off' variables where 'on' represents '1'. Dummy variables may consists of explanatory variables or the dependent variable. In this study, the industry effect is taken as dummy variable which is one of the control variables used in the study model in order to measure the industry effect.

Industry effect measured by employing industry dummies= ID

3.97. Firm Cash Flows

The free cash flow refer to the quantity of money left over when the firm has made investment in all positive Net present value projects (Jensen, 1986). The free cash flow of a firm calculation is difficult as the precise number of the investments possible for a firm may not be accurately determined. Elliot (2002) states that the managers of the firm are

responsible to maximize the shareholders returns in such a way that both the profit figures as well as the cash flows should also be maximized.

Connie (2003) explains that the firm undergoes the problem of underinvestment when the risk of the firm shifts to the debt holders from the debt holders due to the increased project cash flows. Furthermore, they examines that no relationship exists between the increase of firm's financial leverage and the cost of capital. While the optimal debt level and the marginal investment volatility defining the changes in cash flows present a unique relationship that define the changes of cash flows. Volatility in the firm's Cash flows may be responsible as high as eighty percent of the total variation in the market risk that is systemic in nature.

3.971. Primary Data Aspect

The cash flow effect is estimated by using 4 items in the questionnaire described by the dimensions of financing and growth opportunities. As Fazzari et al. (1988) suggests that sensitivity of investment cash flow demonstrates the increased costs of external financing compared with internal financing as a result of information asymmetries as proposed by Myers and Majluf (1984). Particularly, the firms reported with negative sensitivity of cash flow exhibit lower level of the internal liquidity, the highest level of prospective growth opportunities, and seem mostly to be financially constrained (Hovakimian, 2009) as established by Kaplan and Zingales (1997).

3.972. Secondary Data Aspect

According to Telmoudi, Ziadi and Noubbigh (2010), timely debt collection and payment, flow of stock and the gross marketable margin yields the operating cash flow while it is independent of Earnings and turnover variation. Gruca and Rego (2005); Fischer, Shin, and Hanssens (2009) describes the CashFlow as coefficient of variation divided by the market's cash flow coefficient of variation). This study measures the cash flow effect as follows;

Firm's cash flows (Growth) = CF = current year CF-previous year CF / previous year CF * 100

The growth in cash flows of the firm every year is actually considered to measure the cash flow effect.

3.98. Corporate Earnings

3.981. Primary Data Aspect

The corporate earnings are measured by using 4 items in the instrument. The corporate earnings refer to the earnings after tax available for common stockholders which is presented by the firm's income statement in its respective annual report (Horne, 2015 and Brigham, 2004).

3.982. Secondary Data Aspect

The earnings per share is determined for this study by using the simple earning per share formula used in financial ratios calculation (Horne, 2015 and Brigham, 2004). The

formula assumes “the residual income belonging to the common shareholders di vided by the number of common shares outstanding in the market”.

Earnings per Share =

EPS = Total earning after tax available for common stock holders / No. of shares outstanding

Or

EPS = Earning after interest and tax / No. of shares outstanding

3.10. Research Equations

The sequence of predicted and predictor variables along with the control variables is well represented by the model of the study. The overall stock market response is comprised of the stock market reaction and the stock market returns. To test the hypotheses, the main variables used in the study are represented by the following mathematical equations;

Stock Market Reaction= SMRC= f (Leverage, Size, Cash Flow, Growth, Earning per Share, Industry effect) --- (1a)

The equation (1a) represents that the stock market reaction is the function of predictor variables Leverage, Size, Cash Flow, Growth, Earning per Share and the Industry effect represented by industry dummy. These variables are predictors that also include the control or control variables.

$$Y_1 = \beta_o + \beta_1 Lev_{it} + \beta_2 FS_{it} + \beta_3 CF_{it} + \beta_4 FG_{it} + \beta_5 EPS_{it} + \beta_6 ID_{it} + \varepsilon_{it} \text{ ---- (1b)}$$

Where,

Y_1 stands for the predicted value of regression

β_o= constant coefficient for the regression line

$\beta_1 Lev_{it}$ = coefficient of financial leverage for the regression line

$\beta_2 FS_{it}$ = coefficient of firm size

$\beta_4 FG_{it}$ = coefficient of firm growth

$\beta_5 EPS_{it}$= coefficient of earning per share

$\beta_6 ID_{it}$= coefficient of industry dummy

and ε_{it}= Error Term

The mathematical equation for the stock market returns is given as follows;

Stock Market Returns= SMRN= f (Leverage, Size, Cash Flow, Growth, Earning per Share, Industry effect) --- (2a)

The equation (2a) refers to the stock market returns which is the function of financial leverage, size, cash flow effect, growth of firm, earning per share and the nature of industry.

$$Y_2 = \beta_o + \beta_1 Lev_{it} + \beta_2 FS_{it}, \beta_3 CF_{it} + \beta_5 FG_{it} + \beta_5 EPS_{it} + \beta_6 ID_{it} + \mathcal{E}_{it} \text{---- (2b)}$$

Where,

β_o= constant coefficient for the regression line

$\beta_1 Lev_{it}$ = coefficient of financial leverage for the regression line

$\beta_2 FS_{it}$ = coefficient of firm size

$\beta_4 FG_{it}$ = coefficient of firm growth

$\beta_5 EPS_{it}$= coefficient of earning per share

$\beta_6 ID_{it}$= coefficient of industry dummy

and $\mathcal{E}_{it}$= Error Term

3.11. Data Analysis Tools

The softwares used for the empirical testing of the hypothesis, SPSS version 20 (Statistical Package for Social Sciences), the Microsoft excel and E-Views. The SPSS is used to enter the primary data collected from the equity investors and the financial managers of the non-financial Sector listed companies. The MS excel and E-Views is used to collect and test the secondary data over the period of 13 years.

3.12. Primary Data Analysis

The predictor variables are tested against the predicted variable separately as well as along the control variables.

3.12.1. Reliability Analysis

For the primary data analysis, the reliability of the data is checked properly for the further processing. The reliability of the data is verified by using reliability analysis. The questionnaire serve two basic purposes. First, it gathers the relevant information to meet the study objectives and secondly, it ensures the maximum validity and reliability of the data collected (Warwick and Linninger, 1975). Some other authors Carmines & Zeller (1979) suggests the reliability is the level to which a research instrument produces the same results even with the repeated process. In social sciences and humanities, the consistent findings may not occur at different trials as these sciences deal with the human behaviors which is not constant all the times but still a better consistency may be obtained by using a reliable instrument. Some researchers establish following criteria to test the reliability of an instrument (Easter by-Smith et al., 2002); (1) In the case of altering the events, the research instrument attain the same results. (2) If same kind of explanations are provided by other researchers. (3) If the "transparency" exists in how sense from the collected raw data.

Some other researchers discuss the reliability of data as a tool that confirms the consistency in the results obtained from the data collection techniques and a similarity

exists with the findings of other researchers (Cooper & Schindler, 2003). Reliability of the data may also confirm the accuracy of interpretations derived out of raw data. The quality of a survey instrument used for the study may be measured with the help of reliability and validity as suggested by Kimberlin and Winetrstein (2008).

3.12.2. Validity of Data

The validity of data measures the extent to which the method or methods used for data collection precisely determine what they were intended to determine (Saunders et. al., 2003). There are two types of validity; the external and the internal validity. The external validity of the study outcomes denotes the tendency of data to be comprehended upon individuals, time and settings. Internal validity refers to the tendency of a research instrument to determine what it is supposed to determine (Cooper & Schindler, 2003). In this study both external and internal validity of the data is ensured through proper validity analysis.

The Concrete or Criterion validity determines the level to which a measure is associated to an outcome. Kimberlin & Winterstein (2008) explain that the Criterion validity describes the good correlation of outcomes or results by using a novel technique with the other tools of research that measure the similar construct or the relevant concepts. It means that the original instruments provide a good value of validity. The Criterion validity may be split into two components. I-e; the concurrent validity and the predictive validity. The Concurrent validity suggests a comparative analysis between the measure

used in question and the expected outcome at the same point of time. The Predictive validity provides a comparison between the measure used in question and the predicted outcome at some later point of time. Gul (2014); Sreejesh, Mohapatra and Anusree (2014) mention the aspects of content and predictive validity in their studies. Although both the types of criterion validity are similar, yet it is recommended to keep the time period and results separated. As the American Psychological Association, Inc. (1974) suggests that the without a valid supporting justification, the predictive validity may be substituted by Concurrent validity Sreejesh, Mohapatra & Anusree (2014).

To ensure the validity of data, "factor analysis" is carried out for the study as it is important to describe the inter variables associations. In the current study, the component method is applied for the factor analysis. The sample adequacy tests are run on the data to ensure the generalizability over the population by using KMO analysis.

3.12.3. Descriptive statistics

The descriptive statistics are analyzed which provide the standard deviations, minimum and maximum range of the data, the median and mode. The skewness and kurtosis check is also applied to the data.

3.12.4. Correlation & Regression Analysis

At the end, the most important tests of correlation and regression are run over the data. The correlation coefficients are obtained which are helpful to test the multicollinearity of the data and to investigate the relationship between the independent and the dependent

variable along with their significance values. The independent variable was regressed against the dependent variable separately and along with the control variables by using the "enter" technique in SPSS. Then, the independent variable was regressed against the dependent variable along with control variables one by one by using the "stepwise" regression method in SPSS. The stepwise regression provides the contribution of each variable separately towards the predicted variable (Johnson & Wichern, 2006). It gets simpler to find out which variable contributes the most towards the predicted variable.

3.13. Secondary Data Analysis

The secondary data analysis involves following statistical techniques;

3.13..1. Descriptive statistics

First of all, the descriptive statistics are calculated to get a general idea about the data collected. The descriptive statistics applied to the data are comprised of mean, median, frequency distribution, standard deviation, minimum and maximum. The skewness and kurtosis are also checked.

3.13..2. Jarque Bera Test

The normality testing of the study is done by using Jarque Bera Test to ensure that the data lies within the acceptable range of normality curve. The data of the study is found to be normally distributed as it lies under the normal distribution curve.

3.13..3. Heteroscedasticity testing

The residual plots in e-views are applied to check out the heteroscedasticity to ensure that the data is reliable for the calculated results. Hence, the statistical findings of tested data may be trusted.

3.13..4. Correlation

The correlation is applied to the study variables in order to identify the degree of association among the study variables. The autocorrelation is also checked for the data under consideration. The basic test of multicollinearity is applied carefully.

3.13..5. Pooled OLS -Fixed Effect/ Random Effect Model

Prior to the hypothesis testing, it's important to test the assumptions of statistical tests. The pooled regression is applied to the time series panel data to discover the effect of the predictor and control variables on predicted ones. The panel data may involve a fixed or random effect model while applying the regression. Hence, the "**Hausman test"** named after James Durbin (1954), De-Min Wu (1973), and Jerry A. Hausman (1978) is applied to identify the relevant model for analysis whether it is "fixed effect or the random effect model". The results lead to the decision for selecting the appropriate model either the fixed effect or the random effect can be applied.

The fixed effect model assumes that the unique characteristics of the individuals do not differ across time. Such features may or may not demonstrate a

correlation with the individual predicted variables. The random effect model assumes unique features of individuals but constant with time and do not present a relationship with the individual predictors. Pooled OLS may be applied when the attributes of the individuals are constant with time but the random effect model is comparatively more efficient to provide the better results. For this study, the pooled regression is applied to determine the relevant model for the study data i-e, the fixed effect or the random effect model.

The basis for the methodology is derived from the literature provided in the chapter 2. The study includes primary and secondary data to demonstrate a comparison and both types of methodologies to test the respective data are illustrated in detail. The descriptive analysis and the inferential statistics implied to test the data and the procedures of data analysis are explained in the chapter. Further analysis and statistical results of the data are elaborated in the coming section of the report.

CHAPTER 4

PRIMARY DATA STATISTICAL RESULTS

The capital structure of the firms provide the base to make the financing decisions and to formulate the risk management strategies for the firm. Returns are the proportionate function of the risk the firm employs. There are different capital structure theories and numerous studies that contribute to access the relationship of leverage with the a number of other variables like firm size, investment and growth opportunities, the firm value, effect of the industry nature and the productivity. This study determines not only the relationship and impact of financial leverage with stock market returns but also takes into account the stock market reaction combines together to form a complete stock market response. This chapter of the study examines the primary data statistical results to determine the relationship and impact of leverage on the stock market response keeping in the control effect of firm growth, firm size, firm cash flows, corporate earnings and nature of industry.

For the primary data collection, the study involved a survey questionnaire to be filled by the equity investors making their investments in Pakistan Stock Exchange and another survey form to be filled by the managers of the non-financial sector companies listed at Pakistan Stock Exchange.

The primary data is processed for statistical findings by using the "statistical package for social sciences (SPSS)". The primary data consists of data responses received from the equity investors and the responses received from the company managers.

4.1. Reliability

The reliability indicates the ability of research tool to produce the consistency in findings even with repeated observations over the same group of respondents with the same kind of tests applied. It is called internal consistency of the instrument. If the instrument is tested over the different group of respondents it is termed as inter rater reliability. The "Cronbach Alpha" measures the internal reliability calculated by average of inter item correlation. The reliability coefficients may lie between the ranges of 0 to 1. The values near to 1 are considered highly reliable and can be blindly trusted. According to George & Mallery (2003); Nunnally (1978), the acceptable range of "Cronbach alpha" starts from a minimum of 0.5 and maximum 0.9. The higher the alpha value, higher is the level of reliability. The "Cronbach alpha (α)" is calculated by using the software SPSS version 20 to test the reliability and to estimate "the internal consistency". The term indicates that similar outcome is measured by the instrument items.

All the values of alpha closer to 1 which measures the higher level of consistency. The value of Cronbach alpha for all 34 items in the questionnaire filled by company managers is calculated to be 0.851 which shows the data is highly reliable and the internal consistency exists between the items of the questionnaire. The predictor variable financial

leverage presents the Cronbach alpha equal to 0.828 while the predicted variable stock market response split into stock market reaction has Cronbach alpha of 0.818 and stock market returns illustrate 0.801 value. While the control variables of cash flow effect, industry effect, corporate earnings, firm size and growth demonstrate the values of respective Cronbach alpha 0.753, 0.824, 0.778, 0.813 and 0.788. The resulting statistical values affirm the reliability of the collected data as provided by table 7.

Table 7: Reliability Coefficients of Variables in Managers' Questionnaire

	Variable Name	Cronbach α
1.	Leverage (5 items)	0.828
2.	Stock Market Reaction (4 items)	0.818
3.	Stock Market Returns (4 items)	0.801
4.	Cash flow effect (4 items)	0.753
5	Industry (5 items)	0.824
6	Corporate earnings (4 items)	0.778
7	Firm Size (4 items)	0.813
8	Growth (4 items)	0.788
	OVERALL (34 ITEMS)	**0.851**

The value of Cronbach alpha for the 35 items in the equity investors' questionnaire is computed as 0.864 that explains the higher degree of reliability and prove the presence of internal consistency among the questionnaire items. The independent variable financial leverage has the Cronbach alpha equal to 0.882 while the predicted variable stock market response split into stock market reaction has Cronbach alpha of 0.681 and stock market returns demonstrate 0.67 value. While the control variables of cash flow growth, industry effect, the corporate earnings, firm size and growth validate the values of Cronbach alpha equal to 0.788, 0.502, 0.778, 0.797 and 0.736 respectively. The above calculated values ensure the "validity and reliability" of the sample study data. The reliability coefficients of variables in equity investors' questionnaire are shown in table 8.

Table 8: Reliability Coefficients of Variables in Equity Investors' Questionnaire

	Variable Name	Cronbach α
1.	Leverage (5 items)	0.882
2.	Stock Market Reaction (4 items)	0.681
3.	Stock Market Returns (5 items)	0.671
4.	Cash flow effect (4 items)	0.788
5	Industry (5 items)	0.502
6	Corporate earnings (4 items)	0.778
7	Firm Size (4 items)	0.797
8	Growth (4 items)	0.736
	OVERALL (35 ITEMS)	**0.864**

4.2. Factor Analysis

The term "factors" refers to the "principal constructs illustrating the variables". Leech et al. (2005) suggests to omit the item values less than 0.40 for the factor analysis of variables. In pilot testing, the items with component values less than 0.40 were omitted. Table 4.5 demonstrates the factor analysis for the predictor and predicted variables and their component values respectively where all such values stay above .50 which affirms the validity of collected data. It also proves the absence of "co linearity" among the items describing the variables. A higher value of factor loadings illuminate the excellent level of validity and observe the principal construct.

4.21. External and Content Validity

The content validity refers to the good fit of items for the operationalization of a construct in so that a representative and adequate sample may well estimate the construct (Kimberlin and Winterstein, 2008). Following are the steps that ensure the external validity of the data collected; (1) The study data collection is ensured from the reliable data sources, the respondents who give time, read, comprehend and answer the questions in the instrument; (2) The questionnaire is adapted that the theme of the statements is based upon the historical literature and the published research instruments. The instrument is also discussed with the subject and research experts to prevent the occurrence of errors and confirm the rationality or validity; (3) During the data collection period, no major event changes or fluctuations has been taken place.

The content validity of an instrument cannot be determined accurately as no statistical test is available to measure the content validity which may determine the adequacy of the research instrument to present a construct or to cover the content. Hence, the content validity can be confirmed by the judgment of the field experts and the subject scholars of the area. The content validity of the current study is ensured by the consultation of instrument with various field experts and scholars, discussion with the potential respondents and modifications in the questionnaire after repeated pilot testing. Therefore, the three stage process is adapted by the study to ensure the content validity. First, the development of instrument on the basis of wide idea provided by literature. Second, the examination of instrument by subject specialists and thirdly, incorporating their recommendations and modification of instrument in the in the light of responses received during repeated pilot testing.

The pilot testing of the responses was made. The questionnaires were floated fully in the market when the pilot testing ensured the validity and reliability of data.

4.22. Internal and Criterion Validity

The study determines the content validity as a part of external validity and construct validity on the basis of previous literature and suggestions provided by subject experts. The pilot testing confirms the validity of the research instrument. Initially, a comprehensive questionnaire was designed to estimate the constructs of the study but later on, some items were removed and the instrument was readjusted as per the feedback

received in pilot testing responses. The factor analysis and the Cronbach alpha measuring the reliability lead to the modifications and repeated pilot testing of the questionnaire.

KMO represents “Kaiser-Meyer-Olkin test” that is a statistical instrument used to compute the adequacy of the study sample. The test specifies the sufficiency of items employed to estimate every factor of the study variables. For a factor analysis, a minimum value of 0.40 is suggested by various authors to be considerable in component method. Although the values near to 1 explain a goodness of sample adequacy as suggested by Field (2009) yet the values above 0.50 confirm that the sample is adequate. In case of managers’ questionnaire responses, all the sample adequacy values lie above 0.50 for all the study variables which suggests that the sample is adequate and fall under satisfactory criteria for calculating the factor loadings. The resulting scores of “Kaiser-Meyer-Olkin Measure of Sampling Adequacy” for leverage, stock market reaction and returns are 0.671, 0.743 and 0.609 respectively as represented by the table 8.

The value of “Bartlett's Test of Sphericity” measures the significance. The values less than 0.05 and closer to 0.00 refers that the high level of significance. It demonstrates that the correlation matrix among the items is dissimilar at a significant level from the matrix of identity when the coefficients of correlation among the variables become zero. Table 9 exhibits “KMO and Bartlett's Test of Sphericity” which determines the multivariate normality as the adequacy of study sample. The “Kaiser-Meyer-Olkin” value for leverage, stock market reaction and stock market returns is 0.00 which affirms the high level of significance.

Table 9: "KMO and Bartlett's Test" for Managers' Questionnaire

Sr. No.	Variables	KMO	Bartlett's Test
1.	LEV	0.671	0.000
2.	SMRC	0.743	0.000
3.	SMRN	0.609	0.000

Note: ***=P<1% level, **=P<5% level, *=P<10% level

'LEV'=Leverage, 'SMRC'= Stock market reaction, 'SMRN'= Stock market returns

On the other hand, table 10 shows the adequacy values for the control variables of cash flow effect, industry effect, corporate earnings, firm size and growth are calculated as 0.659, 0.811, 0.691, 0.651 and 0.562 respectively. The cash flow effect, industry dummy, corporate earnings, firm size and growth are highly significant at 0.00. Therefore, it validates that the correlation matrix existing among the variable items does not really transform an identity matrix. The Chi-square scores are illustrated in the table with a degree of freedom for each variable and their respective Bartlett's test significance.

Table 10: KMO and Bartlett's Test of control variables for Managers' Questionnaire

Sr. No.	Variables	KMO	Bartlett's Test
1	CF	0.659	0.000
2	ID	0.811	0.000
3	CE	0.691	0.000
4	FS	0.651	0.000
5	FG	0.562	0.000

Note: ***=P<1% level, **=P<5% level, *=P<10% level

CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The factor analysis for the managers' questionnaire is represented in table 11. All the component values of the predicted and predictor variables in the table are higher than 0.70 which show the greater validity. The component value for the items determining the financial leverage range from 0.717 up to 0.828. The component values for the stock market reaction start from 0.704 to 0.861 while for the stock market returns, the series of component values starts from 0.774 to 0.800 which explains a high validity of constructs defining the variable. The items with low factor loadings not falling in the acceptable range were removed from the questionnaire at the time of pilot testing.

Table 11: ***Factor Loadings for the Managers' Responses***

Sr. #	Variables	Dimensions/Items	Standardized Factor Loadings (St. FL)
1.	LEV	D1	0.717
		D2	0.717
		D3	0.797
		D4	0.828
		D5	0.826
2.	SMRC	D1	0.805
		D2	0.861
		D3	0.849
		D4	0.704
3.	SMRN	D1	0.775
		D2	0.792
		D3	0.774
		D4	0.800

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns

The factor loadings of control variables for the managers' questionnaire are given in table 12. All the factor loadings of the control variables in the table are higher than 0.550 which show the greater validity. The component value for the items responsible for the cash flow effect, industry dummy, corporate earnings, firm size and growth

represent the minimum loading equal to 0.551, 0.707, 0.665, 0.642 and 0.700 respectively. These component values are well above the acceptable range and reach to the highest of 0.80 above. The component values for the control variables affirm a high validity of the constructs forming the variables.

Table 12: Factor Loadings of control variables for the Managers' Responses

	Variables	Dimensions/Items	Standardized Factor Loadings (St. FL)
1	CF	D1	0.744
		D2	0.873
		D3	0.843
		D4	0.551
2	ID	D1	0.707
		D2	0.840
		D3	0.819
		D4	0.812
		D5	0.779
3	CE	D1	0.665
		D2	0.770
		D3	0.849
		D4	0.821
4	FS	D1	0.642
		D2	0.838
		D3	0.853
		D4	0.862
5	FG	D1	0.841
		D2	0.816
		D3	0.781
		D4	0.700

Note: CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The “Kaiser-Meyer-Olkin technique to measure the Sampling Adequacy” for the equity investor questionnaire affirms the adequacy of items taken to measure variable factors for the implication of various tests on the data. The scores for equity investors stated in the table 12 shows all the values of KMO in the acceptable range with high level of significance. Leverage presents the value KMO 0.857 which represents the excellent validity and 0.707 is the KMO value for stock market reaction, which is meritorious, quite high and is highly significant. The value of KMO for the stock market returns stands 0.788 which stays well above the acceptable range and is highly significant. Hence, the tests verify the sample adequacy of variables for carrying out factor analysis with higher level of significance. The factor analysis values for equity investors questionnaire is given in the following table. The values of KMO & Bartlett’s Test are represented in table 12 and the component matrix is reported in table 13.

Table 13 : KMO and Bartlett's Test for Equity Investors Questionnaire

Sr. No.	Variables	KMO	Bartlett's Test
1.	LEV	0.857	0.000
2.	SMRC	0.707	0.000
3.	SMRN	0.778	0.000

Note: ***=P<1% level, **=P<5% level, *=P<10% level

LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns

Similarly, table 14 reports the values of Kaiser-Meyer-Olkin test of Sample Adequacy for the control variables which satisfy the criteria of acceptability. All the values stand closer to 1 and are highly significant which confirms the validity of data for factor analysis. The figures in the table 13 shows that the values of Kaiser-Meyer-Olkin for the control variables lie above 0.70 which estimates the sample adequacy to measure the construct and all the values are highly significant at 0.00 level. It confirms that the matrix of correlation for the study sample is dissimilar to the matrix of identity. The Chi-square values and the degree of freedom for control variables are represented with Bartlett's test level of significance.

Table 14: KMO and Bartlett's Test of control variables for Equity Investors Questionnaire

Sr. No.	Variables	KMO	Bartlett's Test
1	CF	0.775	0.000
2	ID	0.713	0.000
3	CE	0.796	0.000
4	FS	0.783	0.000
5	FG	0.731	0.000

Note: ***=P<1% level, **=P<5% level, *=P<10% level

CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The factor analysis for the equity investors' instrument illustrates that all the factor loadings for the predicted and predictor variables are greater than the minimum acceptable range of 0.40. The table 15 shows that the components values for the variables lie above 0.50 and range up to 0.869 which highlights the superior validity. The component value for the items defining the financial leverage initiate from 0.750 up to 0.869. The tabulated values of items determining the stock market reaction range from 0.753 to 0.822 while the stock market returns represent the maximum component value of 0.863. The tabulated values of all the items determining the variables elucidate a greater validity of constructs.

Table 15: Factor Loadings for the equity investors' Responses

Sr. #	Variables	Dimensions/Items	Standardized Factor Loadings (St. FL)
1.	LEV	D1	0.837
		D2	0.869
		D3	0.815
		D4	0.750
		D5	0.851
2.	SMRC	D1	0.822
		D2	0.753
		D3	0.770
		D4	0.500
3.	SMRN	D1	0.676
		D2	0.865
		D3	0.423
		D4	0.863
		D5	0.732

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns

The factor results for the control variables indicate that the tabulated values are good enough to formulate the item constructs as specified in table 16. All the values are higher than the minimum acceptable range. The component values of the items illustrating the cash flow effect, industry effect, corporate earnings, firm size and firm growth show a values up to 0.818, 0.896, 0.817, 0.810 and 0.795 respectively. The

component values for the control variables confirm a high validity of the items measuring the constructs. The items showing low factor loadings below the merit range were excluded from the instrument.

Table 16: Factor Loadings of control variables for the equity investors' Responses

Sr. #	Variables	Dimensions/Items	Standardized Factor Loadings (St. FL)
1	CF	D1	0.797
		D2	0.793
		D3	0.818
		D4	0.706
2	ID	D1	0.668
		D2	0.796
		D3	0.896
		D4	0.775
3	CE	D1	0.792
		D2	0.785
		D3	0.785
		D4	0.817
4	FS	D1	0.797
		D2	0.814
		D3	0.741
		D4	0.810
5	FG	D1	0.795
		D2	0.692
		D3	0.785
		D4	0.716

Note: CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

4.3. Normality testing of instrument responses provided by financing decision makers

For testing the normality of data in case of the responses provided by the company managers, the skewness and kurtosis is analyzed. The results of such tests are presented as follows in the table 17;

Table 17: Skewness and Kurtosis Statistics for the managers' responses

		Skewness	Kurtosis
	Variables	**Std. Error (.267)**	**Std. Error (.529)**
1	LEV	-1.279	1.155
2	SMRC	-1.744	3.140
3	SMRN	-1.105	.376
4	CF	-1.556	1.592
5	ID	-1.460	1.576
6	CE	-1.156	1.277
7	FS	-.866	1.760
8	FG	-1.408	1.601

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

Table 16 shows the normality statistics for the predictor, predicted and control variables defined in the questionnaire filled by the managers. The results approve the normality of the data as the computed skewness and kurtosis.

4.4. Descriptive Statistics of instrument responses provided by financing decision makers

The descriptive statistics of the observations collected from the company managers are described on the table 18 which shows the average response of the respondents, the variance and standard deviations present in the data.

Table 18: Descriptive Statistics for managers' Responses

	Scales	Mean	SD	Variance
1	LEV	3.8889	.74229	.551
2	SMRC	4.0648	.55731	.311
3	SMRN	3.6080	.80325	.645
4	CF	3.7407	.77605	.602
5	ID	3.8642	.77642	.603
6	CE	4.0864	.52613	.277
7	FS	4.1667	.41269	.170
8	FG	3.8086	.78688	.619

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The descriptive statistics for the predicted, predictor and control variables are explained by the table 18. The standard deviation of the variables is shown under the normal distribution curve of 68% i-e; between the range of +1 and -1. The mean values indicate that all the variables lie above the range of 3 on the Likert scale. The stock market

reaction, corporate earnings and the firm size predict the highest values of 4 plus as per the respondents' agreement. It means that the managers agree to consider these three attributes most out of others while making their investment decisions. The overall opinions specify that the variables of the current study are vital to be considered by the investors and are important but not the required extent. They focus more only on stock market reaction, corporate earnings and the firm size in the process of their financial decisions. The minimum and maximum values for the variables are also illustrated in the above table.

4.5. Normality testing of instrument responses provided by investment decision makers

The normality checking tests are applied to the data provided by the equity investors to verify the normal distribution of data. The resulting figures are presented as follows in the table 19given below;

Table 19: Skewness and Kurtosis Statistics for the equity investors' responses

	Scales	Skewness Std. Error (.165)	Kurtosis Std. Error (.0328)
1	LEV	-1.158	1.528
2	SMRC	-1.120	.877
3	SMRN	-1.120	.877
4	CF	-.917	1.259
5	ID	-.310	1.123
6	CE	-.969	1.374
7	FS	-1.274	1.885
8	FG	-.597	1.497
9	Age	-.614	-.656
10	Qualification	.985	1.752
11	Profession	1.050	.500

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

Table 19 shows the normality statistics for the predictor, predicted and control variables described in the instrument filled by the equity investors. The values given in the table approve the normality of the data as the skewness and kurtosis values lie within the tabulated values. Some authors suggest that in case of normally distributed residuals of the dependent variable with large sample size, the normal distribution of the

original data may be disregarded. The normal distribution charts of the residuals are represented in the same section.

4.6. Descriptive Statistics for investment decision makers

The descriptive statistical results for the stated variables of the study are described by the table 20.

Table 20: Descriptive Statistics for equity Investors Responses

	Scales	Mean	SD	Variance
1	LEV	3.6393	.85424	.730
2	SMRC	3.5174	.65611	.430
3	SMRN	3.6301	.79054	.625
4	CF	3.6857	.68922	.475
5	ID	4.0183	.55201	.486
6	CE	3.8545	.69685	.486
7	FS	3.6690	.76122	.579
8	FG	4.0696	.56717	.322
9	Age	4.0239	.99247	.985
10	Qualification	2.6957	1.03301	1.067
11	Profession	2.2985	1.1448	1.310

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The standard deviation of the variables lie under the normal distribution curve i-e; between the range of +1 and -1. The mean values indicate that all the variables lie above the range of 3 on the Likert scale. It explains that the equity investors value the above mentioned variables while making their investment decisions. Their opinions indicate that the variables of the study are vital to be considered by the investors and are important more than the average. The equity investors put more weightage to the firm growth and nature of industry in the process of their decision making about their investments at the Pakistan Stock Exchange. The minimum and maximum values for the items are also displayed by the table.

4.7. Correlation Analysis

The correlation analysis is conducted for the responses provided by the company financing managers as well as for the opinions collected form the equity investors making investment at Pakistan Stock Exchange.

4.71. Correlation analysis of instrument responses provided by financing decision makers-Managers

The correlation analysis of the study variables will determine the level and strength of association among them. The correlation analysis is conducted among the predictor, predicted variables as shown in the table 21.

Table 21: Correlation Coefficients of predictor, predicted and control Variables for managers' Responses

	LEV	SMRC	SMRN	CF	ID	CE	FS
LEV	1						
SMRC	.581**	1					
SMRN	.401**	.538**	1				
CF	.375**	.400**	.214	1			
ID	.073	.311**	.409**	.334**	1		
CE	.194	.315**	.112	.471**	.355**	1	
FS	.251*	.537**	.232*	.487**	.518**	.613**	1
FG	.527**	.360**	.241*	.331**	.155	.317**	.271*

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The statistical results of correlation matrix (table 21) indicate that the leverage (LEV) exhibit a highly significant positive relationship with the stock market

reaction and stock market returns. As far as relationship with control variables is estimated, the financial leverage explains a highly significant positive relationship with the firm growth and the correlation coefficient has a value of .527** significant at 0.01 level. The financial leverage also demonstrates a highly significant considerable positive relationship with the firms' cash flows with a correlation coefficient of .375** significant at 0.01 level at 90% confidence interval. It proves that if the experiment of study is repeated 100 times from many samples then, same values in 90 % of cases. Another important association between the financial leverage and the firm size has been noted that exists equal to 25.1% with a 0.05 level of significances.

However, insignificant relationships exist between the financial leverage, the industry effect and corporate earnings. *It means that the managers of the companies overlook to consider the effect of industry and corporate earnings while making their financing decisions. They only put a vital importance of the firm growth, cash flows and the firm size while making their financing decisions.* The stock market returns show a moderate degree of association with the nature of industry with 40.9% but highly significant. The firm size and firm growth illustrate a significant relationship with the stock market returns. Whereas, a significant positive relationship between the stock market reaction and the firm size and growth highlights the importance of such control variables in the decision making of mangers about the firm financing. Finally, the results affirm that the firm size and growth, the nature of industry, cash flows and corporate earnings are the control variables of considerable importance by company managers for their financial

decision making as they demonstrate the quite strong relationship with overall stock market response. The statistical results prove that the control variables are closely relevant to the predicted variables for the financial decisions made by company managers. The managers of the companies also need to put an immense importance to these control attributes while deciding about their financing and leverage policies.

4.72. Correlation analysis of instrument responses provided by investment decision makers

The statistical analysis of the correlation matrix as per the responses provided by equity investors are shown in the table 22. The financial leverage is correlated with stock market reaction and stock returns in the positive direction which indicates that both the variables may influence each other in the same way. The coefficient of correlation confirms the presence of a quite strong relationship between the financial leverage and the stock market reaction with the coefficient 0.597** which is highly significant. While the financial leverage also demonstrates a highly significant positive relationship with the stock market returns as the coefficient value equals 0.632*. It indicates that the managers of the companies need to focus upon the expected stock market reaction and returns while making their financing decisions as the investors weigh these elements in their investment decisions with levered companies. The results indicate the absence of multicollinearity among the variables.

Table 22: Correlation Coefficients of predictor, predicted and control Variables for equity Investors Responses

	LEV	SMRC	SMRN	CF	ID	CE	FS	FG
LEV	1							
SMRC	.597**	1						
SMRN	.632**	.621**	1					
CF	.655**	.622**	.564**	1				
ID	.435**	.321**	.279**	.510**	1			
CE	.645**	.606**	.616**	.632**	.506**	1		
FS	-.130	.053	.019	-.137*	-.097	-.038	1	
FG	.418**	.241**	.261**	.468**	.376**	.441**	-.156*	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Note: LEV=Leverage, SMRC= Stock market reaction, SMRN= Stock market returns CF= cash flow, ID=industry effect, CE= corporate earnings, FS=firm size, FG=firm growth

The coefficients of correlation further suggest that the financial leverage has strong positive relationship with the control variables except for the firm size. While a moderate but highly significant relationship exists between the financial leverage and the industry dummy and firm growth with a value of .435** and .418** respectively. The stock market reaction, stock market returns, cash flow effect and corporate earnings exhibit a strong positive relationship with each other showing the correlation coefficient values of

.597**, .632**, .655** and .645** respectively. It means that the control variables are closely relevant in the view of equity investors and are useful to decide about their investments in the leverage firms stocks. Hence, the managers of the companies also need to put an immense importance to these control attributes while deciding about their financing and leverage policies as their ultimate investors seek to decide upon. The managers need to focus highly on their corporate earnings and cash flows when they make their funding decisions as these variables demonstrate a significant and quite strong relationship with financial leverage. The statistical results also verify the above statement. All the values for coefficients of correlation in the given table are significant at high level of significance alpha 0.01 and confirm the reliability of statistical results.

4.8. Linear Regression Analysis

Regression analysis is used for the empirical testing of the study hypotheses. Prior to the analysis, the normality, autocorrelation and collinearity diagnostics are applied to ensure the reliability of result. The stated tools satisfied the basic assumptions of linear regression. As the study is comparative in nature, therefore, it involves two types of questionnaires for data analysis. The regression analyses of both the instruments used in the study are given as follows;

4.81. Regression Analysis of instrument responses provided by financing decision makers

The linear regression is applied to investigate the views and practices of the company managers about the independent, dependent and control variables for the process of their financing decisions.

4.811. Effect of leverage on 'stock market reaction'-Managers' Response

The predictor variable financial leverage is regressed with stock market reaction for the responses collected from company managers. The R square value is .338 as shown in the table 23. It predicts the reasonable explanatory power of financial leverage formulating the model. At the same time, it also predicts that there are other unknown variables other than leverage that make a 61.2% impact on the stock market reaction.

The regression results confirm that the stock market reacts positively to the increase in firm's leverage as the financial leverage makes 33% impact on the stock market reaction with an adjusted R square of .33 in the view of managers. Hence, the following inference may be drawn out of these results; the managers think that the stock price volatility and the respective stock yields[17] for the investors increase with the increased proportion of debt in the capital structure. The F-value of the regression model is highly significant at 0.01 level and illustrates a greater explanatory power of the variables as

[17] Stock price volatility & market rate of returns are used as indicators of stock market reaction (SMRC) in the study instrument.

shown in the table 23. Hence, the significant regression results confirm the study hypothesis H_1 as per the managers' responses.

Table 23: Regression Statistics to measure the impact of Leverage on Stock Market Reaction (SMRC) as per the Managers' Response

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	**0.581**	**0**.085	6.352	0.000***
C	1.894	0.334	5.667	0.000
R-squared	0.338			
Adjusted R-squared	0.330			
S.E. of regression	0.57366			
F-statistic	40.345			
Durbin-Watson stat	1.570			
Prob (F-statistic)	0.000			

*Note: ***=significant at 1% level, **=significant at 5% level & *=significant at 10% level*

The collinearity statistics confirm that no multi collinearity exists among the variables as the Value inflation factor is less than acceptable value of 5. While the t value is less than the tabulated value of 2 and the beta coefficient is also shown a .581 illustrating a considerable impact of financial leverage on stock market reaction with highly significant value at 95% confidence interval. The beta value and the t statistics is shown in

the table 23. The Durbin Watson test confirms the absence of autocorrelation among the items as its value lies within the appropriate range.

In order to test the further hypotheses H_3 and H_5 of the study, the hierarchal regression is applied to the variables of the model. The kind of regression measures the influence of each new variable entered in several steps and is helpful to identify the most influencing variable. The kind of regression is also carried out for the financial leverage to predict the stock market reaction with the control variables.

Table 24: Hierarchal Regression statistics of Predicted Variable Stock Market Reaction as per Managers' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
LEV	.538	.085	.581	6.352	.000	1.00	.338	.330	.338	
F for ΔR^2									40.345***	
CF	.151	.106	.153	1.421	.159	1.164	.355	.338	0.017	
F for ΔR^2									2.019	
ID	.260	.087	.261	2.989	.004	1.130	.422	.399	0.067	
F for ΔR^2									8.932***	
CE	.298	.135	.232	2.214	.030	1.365	.457	.428	0.035	
F for ΔR^2									4.901***	
FS	.739	.127	.242	5.833	.000	2.053	.626	.601	0.169	
F for ΔR^2									34.021***	
FG	.201	.117	.174	1.718	.090	1.491	.641	.612	0.014	1.878
F for ΔR^2									2.953	

*p < .05. **p < .01. ***p < .00.

a. Predictors: (Constant), LEV

b. Predictors: (Constant), LEV, CF

c. Predictors: (Constant), LEV, CF, ID

d. Predictors: (Constant), LEV, CF, ID, CE

e. Predictors: (Constant), LEV, CF, ID, CE, FS

f. Predictors: (Constant), LEV, CF, ID, CE, FS, FG

g. Dependent Variable: SMRC

Table 24 illustrates the scores of R, R^2, adjusted R^2 and Durbin-Watson for the responses of company financial managers using a Hierarchal regression. The predictors listed in the footings of the table 24 exhibit the order of inputs towards hierarchal regression. The results predict that the predictor variables demonstrate little change in the R square with the addition of inputs. The financial leverage contributes towards the highest change in the stock market reaction when it comes to the managers' decision making of capital structure.

The firm size shows a significant change of 16.9% in R square with stock market reaction which proves the firm size to be the most effective predictor of stock market reaction. It is the highest contribution that firm size makes towards the dependent variable and is highly significant. The industry effect presents a 6.7% significant variation in R square and determine 26% influence for the stock market reaction with a beta coefficient of 0.26. The corporate earnings also illustrate a negligible but significant change and predicts a 28.9% influence on the stock market reaction. On the other hand, the cash flows and the firm growth do not illustrate a visible change and prove to be weak predictors.

Therefore, the firm size, nature of industry and corporate earnings proves to be significant and strong predictors of the stock market reaction. Such variables demonstrate a positive influence on the stock market reaction and a positive change in their magnitude will drive the market in upward direction. For instance, if the corporate earnings increase, the stock market will react positively as a greater volatility in the market values and investors yields will be expected. This is how the managers of the companies believe when

they make their capital structure or financing decisions. The situation indicates that the company financial managers care about the most about firm size, nature of industry and the corporate earnings of the firms while formulating their financing decisions as such variables influence the stock market reaction most above other control variables the study. In addition, the finance mangers may least bother the cash flows and the firm future growth when they decide about their financing. In their viewpoint, the firm's cash flows and firm growth do not contribute to make a significant influence on stock market reaction. The Durbin-Watson statistical value is computed as 1.878 and is very close to the perfect value of 2 showing no auto correlation among the variables. It lies in the appropriate range of accuracy i-e 1.5 to 2.5 as discussed earlier in the section.

Table 25: Stepwise Regression statistics of Predicted Variable Stock Market Reaction as per Managers' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	F	DW
ID	.242	.090	.290	2.695	.009	1.130	.290	.399	7.262	1.880

*p < .05. **p < .01. ***p < .00.

a. Dependent Variable: SMRC

b. Predictors: (Constant), ID

Table 25 shows the results of stepwise regression analysis as the software SPSS estimated the intensity of the influence and hence, assigned the order of preference for the effect of control variables on the stock market reaction. In this table, the nature of

industry show the maximum influence out of all other variables and bring about 33.9% and 33.8% R square change respectively. The stepwise regression in SPSS only highlights the variables that make a considerable influence on the dependent variable. Here, it proved that if the industry effect predicts the stock market reaction. The volatility in market may be effected positively by the nature of industry in which the investors make the investment.

Therefore, it is concluded that the study hypothesis H_3 and H_5 is accepted as the control variables of firm size, corporate earnings and the nature of industry proved to be the determinants of stock market reaction in the opinion of companies' finance managers. The findings are statistically significant by applying the linear regression and Hierarchal regression approaches. It also reveals that the company managers overlook the firm cash flows and firm growth while making their financing decisions. So, the managers may choose to omit some of the important elements for which the equity investors seems to be highly concerned as per the further stated results of the study.

4.812. Effect of leverage on 'stock market returns'-Managers' Response

The regression analysis is applied to test the impact of financial leverage on the stock market returns according to the responses collected from companies' financial decision makers. The results indicate that predictor explains a regression square of 16.1% with the stock market reaction which is highly significant at 95% confidence interval. The F value represents the 0.01 level of significance. The adjusted regression square shows that 15% contribution towards the determination of stock market returns is made by financial

leverage as per the explanatory power of the variable. While the 85% of variance is explained by the other unknown variables.

Table 26: Regression statistics to estimate the impact of Leverage on Stock Market Returns as per the Managers' Response

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	**0**.401	**0**.104	3.890	0.000***
C	2.119	0.409	5.186	0.000
R-squared	0.161			
Adjusted R-squared	0.150			
S.E. of regression	0.575			
F-statistic	15.136			
Durbin-Watson stat	1.771			
Prob (F-statistic)	0.000			

*Note: ***=significant at 1% level, **=significant at 5% level & *=significant at 10% level*

The table 26 also represents the coefficients of regression for measuring the influence of financial leverage on the stock market returns according to the responses provided by the finance managers of the companies. The t-value for the financial leverage is 3.89 significant at a 0.00 level. The t value is based on the beta coefficient of .403 with a standard error of 0.104. The beta coefficient illustrates that the leverage has 40.1% impact

on the stock market returns in the opinion of company managers. The value of Durbin-Watson statistics is1.771 which confirms that there exists no autocorrelation and the value lies between the acceptable range of 1.5 to 2.5.

Hence, the financial leverage proves to be a highly significant predictor of stock market returns. The positive sign of the coefficient represents that increased leverage may result in the increased market returns for the investors. The enhanced market valuations may bring the positive yields for the company's investors. Therefore, the managers of the company believe that increased leverage increases the market returns for the investors. The verdict approves the hypothesis H_2.

To test the study hypotheses H_4 and H_6, the Hierarchal regression technique is also applied to estimate the influence of financial leverage on the stock market returns with the effect of other control variables of the study. Table 27 shows that the financial leverage is the principal variable that is responsible for the highest level of change i-e 16.1% in the stock market returns. However, the nature of industry is responsible for 14.6% change in the stock market returns followed by 1.3% small change with firm size to estimate the predictor variable. The coefficient of determination R square is shown as 0.161 for financial leverage which explains a 16.1% variation in the stock market returns is the result of financial leverage. The results are significant at 0.00 level or 95% confidence interval. The industry dummy demonstrates the greatest influence among the other control variables.

Table 27: Hierarchal Regression statistics of Predicted Variable Stock Market Returns as per Managers' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
LEV	.403	.104	401	3.890	.000	1.000	.161	.150	.161	
F for ΔR^2									15.136***	
CF	-.001	.132	-.001	-.004	.997	1.404	.161	.139	.000	
F for ΔR^2									.000	
ID	.418	.104	.385	4.035	.000	1.013	.307	.280	.146	
F for ΔR^2									16.277***	
CE	.126	.164	.090	.766	.446	1.535	.313	.276	.005	
F for ΔR^2									.587	
FS	.225	.185	.165	1.216	.228	2.045	.326	.281	.013	
F for ΔR^2									1.480	
FG	.155	.173	.123	.893	.375	2.113	.333	.279	.007	1.811
F for ΔR^2									.797	

*p < .05. **p < .01. ***p < .00.

a. Predictors: (Constant), LEV

b. Predictors: (Constant), LEV, CF

c. Predictors: (Constant), LEV, CF, ID

d. Predictors: (Constant), LEV, CF, ID, CE

e. Predictors: (Constant), LEV, CF, ID, CE, FS

f. Predictors: (Constant), LEV, CF, ID, CE, FS, FG

g. Dependent Variable: SMRN

The table 27 also demonstrates that the beta coefficients of the predictor and control variables are highly significant at each individual level of the hierarchal regression. When financial leverage is regressed against stock market return, the coefficient of the regression constant is 40.1 and is highly significant with a t value of 3.89 at a 0.00 level. With the addition of more predictor variables or control variables at different levels, the industry dummy shows a highly significant influence out of other variables which is equal to 38.5% on the stock market returns. The coefficients of the constant decrease and turn insignificant. The 1.811 Durbin-Watson score for the responses of company managers shown in the table affirms that there is no autocorrelation among the variables. The tolerance and VIF values were also checked which negate the existence of multi-collinearity exists among the items as the calculated values lie within the acceptable range.

The statistical results predict the managers' belief that if they increase the debt in capital structure, the stock returns in the market may be maximized for their shareholders. Their investors may get better yields due to improved market valuation. Meanwhile, the nature of industry, firm cash flows and firm growth also influence the stock market returns. These factors may derive the market positively and award their investors with better returns.

Table 28: Stepwise Regression statistics of Predicted Variable Stock Market Returns as per Managers' Response

Variable	B	SE B	β	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
ID	.277	.095	.315	2.928	.004	1.00	.099	.087	.099	
F for ΔR^2									8.572**	
FG	.359	.092	.407	3.915	.000	1.070	.222	.202	.123	
F for ΔR^2									12.149***	1.933

*p < .05. **p < .01. ***p < .00.

a. Dependent Variable: SMRN

b. Predictors: (Constant), ID

c. Predictors: (Constant), ID, FG

The stepwise regression is applied to check out the predictor that affects most the stock market returns. The statistics (table 28) predict that the nature of industry 'ID' and the firm growth FG has a reasonable influence on the stock market returns SMRN compared with the other control variables as per the managers' opinion. The managers who are actively involved in financing decisions think that altering the nature of industry may influence the stock market returns in a positive direction. The subsequent returns may be enhanced. Similarly, the leveraged firms with higher growth may yield improved returns for the stock investors in the market.

Hence, as per the results of hierarchical regression, the nature of industry, cash flows of the firm and the firm growth makes the most influence on the stock market

response overall. As per the stepwise regression results, the nature of industry and the firm growth makes the most significant and considerable influence among the other control variables. However, the hypothesis H_4 and H_6 of the study is partially approved by the statistical results as the other control variables demonstrate the insignificant results except for the industry dummy and firm growth as per the responses provided by company financial managers. In short, the participants of capital structure decisions consider that the leverage in growing firms with better cash flows may enhance the stock market returns. Moreover, the nature of industry for which they make leverage decisions may also influence the stock market returns for their investors. It means the control factors other than nature of industry do not bother the company managers while making the financing decisions keeping in view the stock market returns.

4.82. Regression Analysis of instrument responses provided by investment decision makers

The linear regression test is run to analyze the opinions provided by the equity investors about the predicted, predictor and control variables when they make their investment decisions.

4.821. Effect of leverage on 'stock market reaction'-Equity Investors' Response

The financial leverage is regressed with stock market reaction on the basis of opinions provided by equity investors. Table 29 shows that the regression square value tabulates as 0.356 with an adjusted R square of 0.353 showing a model fit for the predictor leverage and the predicted variable stock market reaction. The adjusted R square stands

0.353 which shows the model fit for the study variables. It explains 35.3% explanatory power of the variables formulating the model. Although it is not a highly strong fit as there may be several other variables that may have effect on stock market reaction yet leverage contributes significantly to determine the stock market reaction.

Table 29: Regression statistics to estimate the impact of Leverage on Stock Market Reaction as per the Equity investors' Response

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	**0.597**	**0.042**	10.784	0.000***
C	1.858	0.158	11.735	0.000
R-squared	0. 356			
Adjusted R-squared	0.353			
S.E. of regression	0.524			
F-statistic	116.294			
Durbin-Watson stat	1.864			
Prob (F-statistic)	0.000			

*Note: ***=significant at 1% level, **=significant at 5% level & *=significant at 10% level*

Financial leverage demonstrates a positive impact on stock market reaction with standardized beta value of 0.597 which is highly significant. It reveals that financial leverage influences positively on stock market reaction with a percentage of 59.7%. The equity investors believe that the investments in leveraged companies may stimulate the

stock market reaction. The volatility in market price and the respective returns[18] may increase significantly with the increase in leverage of the companies. Their perception is similar to that of company managers as previously discussed. Hence the hypothesis H_1 is accepted which confirms a significant positive impact of financial leverage on stock market reaction.

The Hierarchal regression is applied to estimate the impact of financial leverage on the stock market reaction with the effect of control variables at every stage in order to test the hypotheses H_3 and H_5. Table 31 illustrates that the financial leverage is the most dominant variable to being the highest change of 26.1% in the stock market reaction. While the cash flows are the next that bring about 9.2% variation in the predicted variable followed by 5.7% change with the corporate earnings. The coefficient of determination for financial leverage is calculated as 0.261 which explains that 26.1% variation in the stock market reaction is brought by the financial leverage while some other factors (not being the part of study) are responsible for the rest 74% fluctuation in the predicted variable. If the control variables effect is considered, the cash flows and the corporate earnings are the most influencing variables as compared to the rest. The explanatory power of the model is quite good as the F-value and significance F predicts. The value of significance lies at 0.01 with 95% confidence interval.

[18] Volatility in market value and returns are the indicators of stock market reaction in the research instrument.

Table 30: Hierarchal Regression statistics of Predicted Variable Stock Market Reaction as per Investors' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
LEV	.371	.044	-.081	.069	.000	1.000	.261	.257	.261	
F for ΔR^2									69.906***	
CF	.344	.065	.387	5.299	.000	1.621	.353	.347	.092	
F for ΔR^2									28.076***	
ID	-.063	.070	-.059	-.907	.366	1.298	.356	.346	.003	
F for ΔR^2									.822	
CE	.294	.067	.336	4.370	.000	1.960	.413	.401	.057	
F for ΔR^2									19.100***	
FS	.098	.043	.128	2.295	.023	1.053	.429	.414	.016	
F for ΔR^2									5.266***	
FG	-.081	.069	-.079	-1.176	.241	1.521	.433	.415	.004	2.025
F for ΔR^2									1.384	

*p < .05. **p < .01. ***p < .00.

a. Predictors: (Constant), LEV

b. Predictors: (Constant), LEV, CF

c. Predictors: (Constant), LEV, CF, ID

d. Predictors: (Constant), LEV, CF, ID, CE

e. Predictors: (Constant), LEV, CF, ID, CE, FS

f. Predictors: (Constant), LEV, CF, ID, CE, FS, FG

g. Dependent Variable: SMRC

The other control variables i-e the firm size, firm growth and industry shows the influence of 1.6 percent, 0.40 percent and 0.30 percent respectively. Collectively, all the control variable increase the explanatory power of the model up to 43.3% as the coefficient of determination is 0.433 with the addition of control variables to the primary predictor of financial leverage. The beta coefficients of the predictor and control variables are statistically significant at every individual level the Hierarchal regression (see table 30). While the addition of more predictor variables or control variables at subsequent levels, the beta coefficients of the constant decrease and go insignificant. Despite of the case, all the control variables except industry and firm growth are showing significant beta values and measuring a highly significant impact of each variable on stock market reaction. The beta value for cash flow effect is 0.387 showing the highest level of influence i-e 38.7% above other variables used as control variables followed by corporate earnings showing a 33.6% highly significant positive influence on stock market reaction. The industry dummy is found to be insignificant. Hence, overall the control variables are closely related to the stock market reaction.

The Durbin-Watson statistical value is computed as 2.025 which is very close to the ideal value of 2 showing no auto correlation among the variables. It lies in the appropriate range of accuracy i-e 1.5 to 2.5 as discussed earlier in the section. The t statistics predicts that the computed values of the variables are above the tabulated value

of 2. The tolerance and VIF values confirms that no multi-collinearity exists among the items as the calculated values lie within the acceptable range.

Approving the hypothesis $H_{3,}$ the control variables account for a reasonable amount of variation and are responsible to determine the stock market reaction. The study results indicate that investors overlook the effect of industry and firm growth to predict the stock market reaction when they invest in the leveraged companies. However, these variables are considered by the company managers when they make financing decisions. As per the study results, investors prefer the company's cash flows, corporate earnings and firm size when they invest in the leveraged companies. For instance, the investors believe that the stock market reaction is positive with higher price and return fluctuations if they invest in the leveraged companies with larger firm size and greater amount of cash flows and earnings. Therefore, they become conscious about these attributes when they use to invest in leveraged company stocks.

Proceeding with the hypothesis testing, a stepwise regression is also carried out to test the hypothesis $H_{5,.}$ The statistical findings are given in the table 31.

Table 31: Stepwise Regression statistics of Predicted Variable Stock Market Reaction as per investors' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
CF	.425	.051	.051	8.289	.000	1.00	.257	.253	.257	
F for ΔR^2									*68.715****	
CE	.255	.062	.302	.302	.000	1.565	.315	.308	.058	
F for ΔR^2									*16.873****	1.983

*p < .05. **p < .01. ***p < .00.

a. Dependent Variable: SMRC

b. Predictors: (Constant), CF

c. Predictors: (Constant), CF, CE

The table 31 shows that the software ranks the cash flow as the prior most factor to bring about a change in R square' as per the investors; opinion. The investors also agree that these are the corporate earnings CE which also make an impact secondary to the CF on the stock market reaction SMRC. As per the subsequent order of preference determined by equity investors, it seems that cash flows and corporate earnings are the most significant attributes for them when it comes to investment decision making in leveraged firms. The investors are most sensitive and they prefer to look upon such variables. It illustrates that leveraged firms with lower amount of cash flows and earnings are more vulnerable to lose their market value and returns if they invest in and vice versa. The findings support the study hypothesis H_5.

Therefore, it is concluded that primary predictor variable and control variable proved to be the determinants of stock market reaction in the opinion of equity investors investing at Pakistan Stock Exchange. The findings are statistically highly significant at 0.01 level by applying the linear regression and stepwise regression approaches. So, the study hypothesis is supported by the statistical results.

4.822. Effect of leverage on 'stock market returns'-Equity Investors' Response

The regression analysis is applied to test the impact of financial leverage on the stock market returns as per the responses provided by equity investor.

Table 32: Regression statistics to estimate the impact of Leverage on Stock Market Returns as per the Equity investors' Response

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	**0.632**	**0.049**	11.860	0.000***
C	1.502	0.184	8.153	0.000
R-squared	0. 400			
Adjusted R-squared	0.397			
S.E. of regression	0.615			
F-statistic	140.667			
Durbin-Watson stat	1.920			
Prob (F-statistic)	0.000			

*Note: ***=significant at 1% level, **=significant at 5% level & *=significant at 10% level*

The results indicate that predictor explains 39.7% of the variance (R^2 =.397), F (1, 211) =140.67, p<.000. Table 32 shows the coefficient of model fit represents the value of 0.397 which illustrates that the financial leverage explains 37.9% variation in the predicted variable of stock market returns. The value of Durbin-Watson statistics is1.920 which shows the absence of autocorrelation and lies between the acceptable range of 1.5 to 2.5. Although the degree of variation illustrated in the table lies below 0.50 yet it represents a good case of a single variable. The F-value shows the high level of significance which proves the fitness of model. This high level of significance explain that the R square value or the coefficient of determination is genuine and it does not exist by chance or by the sampling error. Table also represents the t-value for the financial leverage is 11.86 significant at a 0.00 level. The t value is based on the beta coefficient of 0.585 with a standard error of 0.049. The beta coefficient illustrates that the leverage has 58.5% influence on determining the stock market returns in the opinion of investors. Hence, the leverage proves to be a highly significant predictor of stock market returns.

The equity investors' psychological patterns of decision making predict that the stock market returns can be maximized if they invest in the leveraged company stocks. The study results infer that investors expect the higher yields from the highly leveraged firms as the leverage determines a positive pattern of stock market returns for investors. Hence, the study hypothesis H_2 is supported by the investors' opinion.

According to the opinions of equity investors, the influence of the predictor variable is also measured with the stock market returns by taking the control variables into

consideration. Table 33 illustrates the good fit of model. The Hierarchal regression shows that the financial leverage is the principal variable, responsible for the highest level of change i-e 37.3% in the stock market returns. However, the corporate earnings follow to bring 5.4% change in the stock market returns followed by 3.5% change with cash flows to determine the predictor. The R square values 0.373 which explains 37.3% variation in the stock market returns is the result of financial leverage. The corporate earnings and the firm cash flows are found to be the most influencing control variables among the others under consideration in the current study.

Table 33: Hierarchal Regression statistics of Predicted Variable Stock Market Returns as per Investors' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
LEV	.584	.054	.611	10.850	.000	1.000	.373	.370	.373	
F for ΔR^2									117.717***	
CF	.274	.081	.236	3.393	.001	1.602	.407	.401	.035	
F for ΔR^2									11.515**	
ID	-.074	.088	-.053	-.843	.400	1.308	.410	.401	.002	
F for ΔR^2									.710	
CE	.374	.085	.324	4.427	.000	1.947	.464	.453	.054	
F for ΔR^2									19.598***	
FS	.099	.054	.098	1.841	.067	1.049	.473	.459	.009	
F for ΔR^2									3.389	
FG	-.106	.087	-.079	-1.218	.225	1.536	.477	.461	.004	1.763
F for ΔR^2									1.482	

*p < .05. **p < .01. ***p < .00.

a. Predictors: (Constant), LEV

b. Predictors: (Constant), LEV, CF

c. Predictors: (Constant), LEV, CF, ID

d. Predictors: (Constant), LEV, CF, ID, CE

e. Predictors: (Constant), LEV, CF, ID, CE, FS

f. Predictors: (Constant), LEV, CF, ID, CE, FS, FG

g. Dependent Variable: SMRN

In Hierarchal regression, the transformation in the value and the significance of constant at different steps take place. When financial leverage is used as the predictor variable for stock market return, the beta coefficient of the regression constant is 1.488 and is highly significant with a t value of 7.299 at a 0.01 level. The industry dummy, firm size and firm growth are found to be insignificant. Hence, overall the control variables predict a high level of relevance to the stock market returns.

Therefore, the study proves the investors' perception that the higher corporate earnings and the firm cash flows in leveraged firms may bring higher yields in the market by empirically supporting the study hypothesis H_4. Hence, the investors desire to invest in the leveraged companies with greater degree of cash flows and corporate earnings to earn handsome returns from their investments in stock markets. These factors are of vital importance in their investment decision making. So, the firm managers need to focus on such attributes of investors' psychology when they formulate the financing decisions in order to get better client investments. The stepwise regression is applied further to test the hypothesis $H_{6.}$

Table 34: Stepwise Regression statistics of Predicted Variable Stock Market Returns as per Investors' Response

Variable	B	SE B	B	T	Sig(t)	VIF	R^2	Adjusted R^2	ΔR^2	DW
LEV	.574	.052	.614	10.95	.000	1.00	.376	.373	.376	
F for ΔR^2									*120.106****	
CE	.397	.077	.343	5.153	.000	1.595	.450	.445	.074	
F for ΔR^2									*26.552****	1.870

*p < .05. **p < .01. ***p < .00.

a. Dependent Variable: SMRN

b. Predictors: (Constant), LEV

c. Predictors: (Constant), LEV, CE

The stepwise regression results (table 34) present a significant change in R square for LEV and among all the control variables, it's the CE that makes a significant positive influence on SMRN. The kind of regression is used to find out the most influencing predictor variable for the stock market returns. Investors perceive that the leveraged firms with reasonable earnings and cash flows may guarantee better returns for them.

Hence, the stepwise regression results approve the study hypothesis as it provides that the most influencing variables on the overall stock market response are found to be the cash flows and corporate earnings after leverage. These factors need to be given prior attention while making the financing decisions in the view of equity investors as they consider the above mentioned variables in their investment decision making.

4.9. Role of Demographic Attributes on the pattern of financing decisions by company managers

The role of demographic characteristics of the managers are also tested in the study to empirically test the study hypothesis H_7. The statistical results are estimated by using the independent sample t test and one way "ANOVA". The statistical computations and analysis are given as follows;

4.91. Gender

The t- test statistics in table 35 represent the irrelevance of managers' gender with the patterns of their financing decisions of the company and towards the prediction of stock market response.

Table 35: Results of t-tests and Descriptive Statistics of Leverage, stock market reaction and stock market returns by ***GENDER*** of managers

Variables	Group						95% CI for Mean Difference	T	df
	Male			Female					
	M	SD	N	M	SD	N			
LEV	3.850	.7736	71	4.040	.63805	10	-.18930	-.738	79
SMRC	3.975	.7223	71	4.000	.55277	10	-.02465	-.104	79
SMRN	3.6655	.7803	71	3.775	.62860	10	-.10951	-.424	79

*p < .05. **p < .01. ***p < .00.

4.92. Age

The one way analysis of variance determines the effect of maturity with the managers' age on their patterns of financing decision making as shown in table 36.

Table 36: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***AGE*** of company managers

Variable	Df	SS	MS	F	*P*
LEV					
Between Groups	2.908	3	.969	1.737	.166
Within Groups	42.967	77	.558		
Total	45.876	80			
SMRC					
Between Groups	1.649	3	.550	1.125	.344
Within Groups	37.626	77	.489		
Total	39.275	80			
SMRN					
Between Groups	4.697	3	1.566	2.899	.040*
Within Groups	41.582	77	.540		
Total	46.279	80			

*p < .05. **p < .01. ***p < .00.

The table 36 demonstrates that the age of financial decision makers only demonstrate a significant difference in case of predicting stock market returns. As far as their maturity with age is concerned, it does not make any difference in the pattern of their

financing decision making for their companies and towards determination of the stock market reaction.

4.93. Qualification

The ANOVA results are presented by the table 37 that reveal no significant difference in the responses of financing decision makers based on their qualifications in order to determine the company's leverage. The attribute also proves to be least effective to predict the stock market reaction and stock market returns. Hence, the prediction of stock market response is independent of the qualification of financing decision makers. A logical explanation may be derived out of the findings that the managers who make the financing decisions at managerial level are equally capable and qualified for the positions. Hence, they may follow uniform approaches to make their decisions in their capacity.

Table 37: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***QUALIFICATION*** of company managers

Variable	df	SS	MS	F	*P*
LEV					
Between Groups	1.653	4	.413	.710	.587
Within Groups	44.222	76	.582		
Total	45.876	80			
SMRC					
Between Groups	1.859	4	.465	.944	.443
Within Groups	37.416	76	.492		
Total	39.275	80			
SMRN					
Between Groups	3.285	4	.821	1.452	.225
Within Groups	42.995	76	.566		
Total	46.279	80			

*p < .05. **p < .01. ***p < .00.

Hence, the maturity with age may demonstrate a significant difference in the patterns of managers' thinking about the prediction of stock market returns and otherwise in case of leverage and stock market reaction. However, the gender and managers' qualification proved irrelevance to change the prediction of stock market response and leveraged decisions. A clear justification may be provided as the managers are not gender biased and equally qualified for the decision making positions they serve.

4.10. Role of Demographic Attributes on the pattern of investment decisions by equity investors

The study also tests the demographics effect on the model. The role of demographics is estimated by using independent sample t test and one way analysis of variance "ANOVA". The statistical results are given as follows;

4.10.1. Gender

The comparison of means that confirm that the gender of the investors do not affect their investment decisions in leveraged stocks and the prediction of stock market response (see table 38).

Table 38: Results of t-tests and Descriptive Statistics of Leverage, stock market reaction and stock market returns by ***GENDER*** of investors

Variables	Group						95% CI for Mean		
	Male			Female					
	M	SD	N	M	SD	N	Difference	T	df
LEV	3.608	0.869	187	3.815	0.693	26	-.2079	-1.17	211
SMRC	3.508	.6074	188	3.587	.6631	26	-.0786	-.611	212
SMRN	3.600	.8179	192	3.815	.5089	26	-.2154	-1.31	216

*p < .05. **p < .01. ***p < .00.

4.10.2. Age

The one way analysis of variance is applied in table 39 to measure whether the maturity with the age of investors may change their patterns of decision making.

Table 39: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***AGE*** of investors

Variable	Df	SS	MS	F	*P*
LEV					
Between Groups	2.315	4	.579	.757	.555
Within Groups	151.480	198	.765		
Total	153.795	202			
SMRC					
Between Groups	3.892	4	.973	2.574	.039*
Within Groups	75.228	199	.378		
Total	79.120	203			
SMRN					
Between Groups	4.263	4	1.066	1.731	.144
Within Groups	124.967	203	.616		
Total	129.230	207			

*p < .05. **p < .01. ***p < .00.

The table 39 demonstrates that the age of investors only make a significant difference in case of predicting stock market reaction. Elsewise, their maturity with age does not create any difference in the pattern of their investment decision making in leveraged companies and the stock market returns.

4.10.3. Qualification

The analysis of variance reported in the table 40 predict that the qualification of the investors only influence their patterns of decision making when they invest in leveraged companies. Otherwise, the attribute does not make any difference in the investors' decisions about the stock market reaction and stock market returns. Hence, the prediction of stock market response is independent of the qualification of investors. No matter how educated they are, the uniform pattern of decision making seems to be followed by them.

Table 40: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***QUALIFICATION*** of investors

Variable	df	SS	MS	F	*P*
LEV					
Between Groups	10.218	5	2.044	2.814	.018**
Within Groups	142.358	196	.726		
Total	152.577	201			
SMRC					
Between Groups	3.461	5	.692	1.812	.112
Within Groups	75.229	197	.382		
Total	78.690	202			
SMRN					
Between Groups	3.322	5	.664	1.025	.404
Within Groups	129.655	200	.648		
Total	132.977	205			

*p < .05. **p < .01. ***p < .00.

4.10.4. Profession

The statistical findings in table 41 predict that the profession of investors duly influence their investment decision making in leveraged companies as well as the stock market response. Their prediction about above stated variables may be different on

the basis of their profession they in. for instance, they are some business owners, employees or regular traders in the stock market.

Table 41: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***PROFESSION*** of investors

Variable	df	SS	MS	F	*P*
LEV					
Between Groups	19.515	4	4.879	7.232	.000***
Within Groups	128.165	190	.675		
Total	147.679	194			
SMRC					
Between Groups	8.454	4	2.114	5.949	.000***
Within Groups	67.858	191	.355		
Total	76.312	195			
SMRN					
Between Groups	14.499	4	3.625	5.975	.000***
Within Groups	118.301	195	.607		
Total	132.800	199			

*p < .05. **p < .01. ***p < .00.

4.10.5. Experience

The study found that the trading experience of the investors doesn't play any role in the prediction of stock market response and is not proved to be contributor towards investment decisions of the equity investors in the leveraged stocks (see table 42).

Table 42: Results of ONE WAY ANOVA Statistics of Leverage, stock market reaction and stock market returns by ***EXPERIENCE*** of investors

Variable	df	SS	MS	F	*P*
LEV					
Between Groups	3.375	4	.844	1.143	.337
Within Groups	150.583	204	.738		
Total	153.958	208			
SMRC					
Between Groups	.526	4	.131	.341	.850
Within Groups	78.970	205	.385		
Total	79.496	209			
SMRN					
Between Groups	1.700	4	.425	.670	.613
Within Groups	132.451	209	.634		
Total	134.150	213			

*p < .05. **p < .01. ***p < .00.

Hence, supported by hypothesis H_8, the profession, qualification and age may influence their patterns of decision making while the gender and experience are irrelevant to the prediction of stock market response and investment in leveraged company stocks. One good explanation for irrelevance in case of some attributes may be provided as the equity investors follow the market trends, dynamics and happenings while making their investment decisions. In such situations, the demographic attributes may not get an opportunity to come into play. The investors in the local market rely more on advocate opinion as Ahmad (2017) argues that the broker recommendation demonstrates a greater influence on Pakistani investors' behavior in making their investment decision.

The concluding results of the study support all the hypotheses of the study. The H_1 and H_2 are fully supported by the responses of both financing and investment decision makers of the companies. On the other hand, H_3 and H_4, H_5, H_6, H_7 and H_8 are partially supported by the statistical findings of the study as some of the control variables demonstrate dominant influence on the predicted variable while other do not. The following chapter will provide a detail of secondary data results and discussion while the detailed comparison of both approaches is provided in the discussion chapter at the end where the findings of current study will be analyzed, discussed and distinguished with the existing study results available in the field.

CHAPTER 5

SECONDARY DATA STATISTICAL RESULTS

The previous section of the study discuss the primary data analysis in detail. The responses of equity investors and that of company finance managers are evaluated in detail. The statistical analysis provides the outcomes based on investors' perception about investment decisions as well as on the managers' perception while formulating their financial decisions. As this study is comparative study and aimed at testing the stock market response against leverage and control variables not only based on investment and financial decision makers' psychology, but the fact sheet results. The historical figures may illustrate better the outcomes of managers' financial decisions and the investors' behavior in the past. i-e; for the period of 2003-2015. Hence, *the study may compare and contrast the primary data results with the fact sheet historical figures to provide a robust testing empirically.* The study captures the stock market response as per the actual happenings in history and as the investment and financial decision makers perceive. Therefore, the related aspects of the finance theories can be empirically tested in the Pakistan Stock Market through different dimensions.

The section of the study deals with the secondary data analysis. This study measures the relationship and influence of leverage with stock market returns as well as the stock market reaction finally merged into a complete stock market response. For the

secondary data collection, the study uses a historical data sheet for the period of 2003 to 2015 including all the non-financial sector companies listed at Pakistan Stock Exchange. The data of the above mentioned companies is spread over 22 industries. The data is gathered from different sources including website of Pakistan Stock Exchange, the balance sheet analysis data published by State Bank of Pakistan, Ministry of Commerce, online magazines and journals and websites like Business Recorder and yahoo finance. This chapter provides the detailed statistical results and analysis of the secondary data. The secondary data is administered for statistical findings by using the latest available version of e-views software and Microsoft excel.

The proxy indicators of the dependent variable "stock market response' considers the market to book value and historical rate of returns. The market to book value out of leveraged firms is not analyzed in isolation as the studies mentioned in literature review do, but the market and industry factor of the firm, book earnings and the market yield on investment is put all together to provide a complete picture in the form of a stock market response to the leveraged firm investments in the presence of other control variables like firm size, firm growth, the cash flow effect, earnings and industry effect at a given risk. Another important feature of this study is that it is a comparative study that not only measures the statistical results of the financial figures in time series data but also compares with the facts happening in the market. In other words, it compares the actual historical figure results with the psychology of people who make the investment and financing decisions. The statistical analysis illuminates the observations.

5.1.Stationarity Testing

A common assumption in several time series methods is the Stationarity of data[19]. A Stationarity method considers the constant structure of the mean, variance and autocorrelation over time. The stochastic patterns controls the time series data which refers to probability distribution randomly that may be statistically scrutinized but may not be precisely predictable. Hence, the Stationarity of a time series data is critical.

In this regard, the Augmented Dickey Fuller (ADF test) proposed by Dickey and Fuller (1979) is applied for testing the non-Stationarity of a time series. Therefore, the null hypothesis for ADF test assumes the non-Stationarity of time series. The underlying assumption may not be rejected in the absence of a solid evidence against it. Nevertheless, such approach may depict low power against stationary closer to the unit root process which may require a confirmatory analysis. Hence, Kwiatkowski, Philips, Schmidt, & Shin (KPSS) suggests a confirmatory analysis in 1992. It assumes stationary under the null hypothesis. As per the information criterion provided by Akaike, the number of selected lags intend to remove the residual autocorrelation in the data collected by daily basis. Thus, an Augmented Dickey Fuller Test is applied to the time series data at first difference to make the series stationary.

[19] Particularly in mathematical term, the Stationarity can be discussed but for the purpose of study, it can be referred as a uniform series, free of any trends, assumes the constant variance and autocorrelation structure over time with no seasonal or the periodic fluctuations.

Table 43: Unit Root Test

Variables	1% CV	5% CV	10% CV	P-Value
D/E	-3.442820	-19.28623	-19.28623	**0.000*****
DTC	-3.442820	-2.866933	-2.569703	**0.000*****
CF	-3.442820	-2.866933	-2.569703	**0.000*****
CE	-3.441861	-3.441861	-2.569477	**0.000*****
FS	-3.441861	-2.866510	-2.569477	**0.000*****
FG	-2.569477	-2.569477	-2.569477	**0.000*****
M/B	-2.569477	-2.866510	-2.569477	**0.000*****
RR	-3.441861	-2.866510	-2.569477	**0.000*****

Note: D/E=Debt/Equity, DTC= debt to total capitalization, CF= Cash flows, CE= corporate earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, RR= Rate of return.

A unit root test is applied to the variables of current study to examine the integration order among the time series data. The statistical findings for the unit root test are represented by Table 43. The ADF Test explains the results at level.

The study results clearly specify that the time series of are stationary at level with a highly significant P-value. Therefore, the first difference is not applied to the series' transformations of logarithm. The results of the data are robust under assumption of a

Stationarity or a constant trend. As the literature suggests the importance of such testing in order to overcome possibility of running a spurious regression.

5.2.Panel Unit Root Test

Levin, Lin, and Chu (2002) discover a panel unit root test to be used for the balanced panels. The test assumes an alternate hypothesis that the ρi are similar and negative.

Table 44: Levin, Lin and Chu Test

Variables	Statistics	P-Value
D/E	-2.25158	0.0122**
DTC	-5.02025	0.0000 ***
CF	-3.57987	0.0002**
CE	-11.2753	0.0000***
FS	-1.64984	0.0495**
FG	-5.55911	0.0000***
MB	-2.07156	0.0192**
RR	-1.64761	0.0497**

Note: ***=P<1% level, **=P<5% level, *=P<10% level

D/E=Debt/Equity, DTC= debt to total capitalization, CF= Cash flows, CE= corporate earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, RR= Rate of return.

For the current study, the test results are reported on the table 44 which confirms the significance of statistical results. The test confirms that the times series data is stationary.

In addition, the **Phillips–Perron test** in econometrics is named for Peter C. B. Phillips and Pierre Perron is a category of unit root tests. The test is applied on the time series data to test the null hypothesis. It is based on the Dickey–Fuller test of the null hypothesis and measures the Stationarity of panel data. The results of the test confirms the Stationarity of data as shown in table 45.

Table 45: Phillips–Perron test

Variables	Statistics	P-Value
D/E	127.691	0.0000***
DTC	168.595	0.0000***
CF	135.846	0.0000***
CE	115.052	0.0000***
FS	128.872	0.0000***
FG	123.283	0.0000***
M/B	138.765	0.0000***
RR	150.561	0.0000***

Note: ***=P<1% level, **=P<5% level, *=P<10% level

D/E=Debt/Equity, DTC= debt to total capitalization, CF= Cash flows, CE= corporate earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, RR= Rate of return.

5.3.DESCRIPTIVE STATISTICS AND NORMALITY TESTING

The descriptive statistics of the time series data collected from the 22 sectors of the non-financial sector companies listed at Pakistan Stock Exchange are reported in the table 46. The data results show mean values, median, the variance and standard deviations. The standard deviation demonstrates that all the values lie under the normal distribution curve of 68% i-e; within the acceptable range of +1 and -1. Hence, the values for all the predicted, explanatory and control variables fall in appropriate range and provide a solid base for further statistical tests like regression analysis.

Table 46: Descriptive Statistics

	D/E	DTC	CE	CF	FS	FG	M/B	RR
Mean	0.364612	0.570358	2.234788	-0.05036	2.650522	0.017563	1.107269	0.057214
Median	0.016906	0.511932	0.818488	0.000000	2.680257	0.000000	0.922137	0.027924
Maximum	3.921062	2.563290	45.62348	9.384406	8.267607	8.565609	9.123635	8.17363
Minimum	0.950867	0.0000551	-25.62857	-3.26886	1.055913	-1.000000	1.124567	-7.51425
Std. Dev.	0.693966	0.574734	7.638175	1.093708	0.890182	0.698214	1.074241	11.29197
Skewness	2.599407	1.794719	1.214906	2.458245	3.379952	4.185249	2.164730	10.32385
Kurtosis	10.19274	7.767867	8.552421	17.63313	18.91381	50.33650	12.62135	291.1502
Jarque-Bera	1545.727	828.0864	720.8925	5540.483	5866.810	45349.64	2184.548	1940372
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	171.7321	318.2598	1052.585	-28.1013	1248.396	8.272266	521.5236	1187.865
Sum Sq. Dev.	226.3468	183.9878	27420.61	666.2822	372.4392	229.1265	542.3766	138331.6

Note: D/E=Debt/Equity, DTC= debt to total capitalization, CE= corporate earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, RR= Rate of return.

The table 46 also represents the normality statistics for the explanatory, predicted and control variables. The given values confirm the normality of the data as the skewness and kurtosis lie within the acceptable range of ± 4 or to be conservative, the acceptable

tabulated value of + (-) 2. The literature suggests that the destructive influence of Skewness and Kurtosis is reduced by taking a sample size of 200 or more (Hair, Tatham, Anderson & Black, 2006). Such values are of immense importance in case of a sample size equal to 50 or less. Ghasemi & Zahediasl (2012) suggest that in case of normally distributed residuals of the dependent variable with large sample size, the normal distribution of the original data may be disregarded.

The normality tests are used for the time series data collected over the period of 2003 to 2015 in order to verify that given data is normally distributed. The Jarque Bera test is one of the commonly used normality tests. The test estimates the goodness of fit whether the given data skewness and degree of freedom, kurtosis presents a normal distribution. For the study time series data, the null hypothesis is rejected according to the Jarque-Bera statistics applied as presented by the table 46. The p value predicts that the assumption of normality is satisfied by the residuals. The basic reason seems to be the sample size which is larger than 500 as Dr Grandjean, Head, Sociology (1991-97); Director, Statistical Consulting and Survey Research Centers (2001-04); Executive Director, WYSAC (2004-12) from University of Wyoming, assert that the larger sample sizes above 500 may not satisfy the assumption of null hypothesis. A large sample may predict a non-normality which is statistically significant even if the departure from normality is substantively insignificant. The situation may arise when the study sample is larger than 500.

The central limit theorem refers to a key theoretical result, demonstrates several methods of analysis. The theorem states that the random samples means from any

distribution will themselves possess a normal distribution. As a consequence, the samples of hundreds of observations, the distribution of the data may be ignored (Altman and Bland, 1995).

5.4.Heteroskedasticity Test

The heteroskedasticity is measured by the residual plots pattern by using OLS results as the data analysis software (e views) used doesn't facilitate to use Park & White Test. The standardized residual plots are given with the regression results and verify the no heteroskedasticity exists among the data observations.

5.5.Autocorrelation Testing

The autocorrelation test Durbin Watson is also applied to the study variables. The statistical results proved that no autocorrelation exists among the study attributes. The detailed calculation and description of Durbin Watson tests for the current study variables is given with their relevant regression analysis.

5.6. Correlation Analysis

The correlation analysis is conducted for the explanatory, control and dependent variables. It provides the relationships among variables to decide about further analysis by OLS. The correlation analysis for the secondary data collected for the period of 2003 to 2015 is shown in the table 47.

The coefficients of correlation for the predictor, predicted and control variables are reported with their significance levels in the table 47. The coefficients of correlation

suggest that the financial leverage has significant but negative relationship with the stock market returns. But the magnitude of such association is not that much high. Similarly, financial leverage demonstrate a minimal but significant association with the firm size and corporate earnings. The relationship of stock market returns with other control variables is proved to be significant. The financial leverage illustrates a highly significant positive relationship with the market to book value which is used as a proxy to measure the stock market reaction. The firm size depicts a significantly positive and moderate relationship with the stock market reaction. It means that firm size may prove to be significant determinant of stock market reaction in addition to financial leverage.

Table 47: Correlation Statistics of predictor and control variables

	RR	D/E	DTC	M/B	CF	FS	FG	CE
RR	1							
D/E	-.127**	1						
DTC	.009	.085	1					
M/B	-.011	.134**	-.065	1				
CF	.023	.025	.069	-.015	1			
FS	-.003	.121**	.082	.327**	-.295**	1		
FG	-.001	.060	.068	.137**	.069	.112*	1	
CE	.132**	.009	-.094*	.134**	.194**	.028	.078	1

****.** Correlation is significant at the 0.01 level (2-tailed).

Note: D/E=Debt/Equity, DTC= debt to total capitalization, CE= corporate earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, RR= Rate of return.

5.7.Regression Analysis

Regression analysis is used for the empirical testing of the study hypotheses after the confirmation of normality and collinearity diagnostics.

To estimate the relationships of various variables, the most appropriate tool to be used is a linear regression. Whereas, a multiple linear regression may be applied when there are several explanatory variables. The objective of a multiple regression is to apprehend the maximum variation that is possible in the predicted variable due to the explanatory variables. To get the most suitable and fitted model, it's important to consider the selection of variables based on the literature research and economic theories.

5.8.Ordinary Least Square Approach

To assess the $_i$ □□-coefficients the Ordinary Least Squares (OLS) method is applied. Initially, it is evident from the statistical results that no multi collinearity exists between the two dimensions of the dependent variable of stock market response split into two. I-e; the stock market reaction and stock market returns. The higher value of correlation coefficient for the independent variable above other predictors illustrates that there is no existence of multicollinearity. The tolerance and the VIF analysis is also conducted to confirm the absence of multicollinearity. The resulting values lie within the acceptable range. For the application of OLS method, the assumptions of linearity and homoscedasticity are required to be satisfied.

5.9. Regression Analysis to measure the impact of Financial Leverage on stock market reaction

To test the study hypotheses, the proxy used for SMRC is market to book value whereas, the proxies to determine the leverage are debt to equity ratio and debt to total capitalization ratio as discussed in detail earlier (see chapter 3). The main variables used in the study are represented by the following mathematical equations;

The equation (i) represents that the stock market reaction is the function of predictor variables Leverage, Size, Cash Flow, Growth, Earning per Share and the Industry effect represented by industry dummy. These variables are predictors that also include the control or control variables.

$$Y_1 = \beta_o + \beta_1 Lev_{it} + \beta_2 FS_{it}, \beta_3 CF_{it} + \beta_4 FG_{it} + \beta_5 CE_{it} + \beta_6 ID_{it} + \varepsilon_{it} \text{ ---- (i)}$$

Where,

Y_1 stands for the predicted value of regression

β_o= constant coefficient for the regression line

$\beta_1 Lev_{it}$ = coefficient of financial leverage for the regression line

$\beta_2 FS_{it}$ = coefficient of firm size

$\beta_4 FG_{it}$ = coefficient of firm growth

$\beta_5 CE_{it}$= coefficient of earning per share

$\boldsymbol{\beta_6 ID_{it}}$= coefficient of industry dummy

and $\boldsymbol{\varepsilon_{it}}$= Error Term

5.91. Market to Book Value [20]Verses Debt to Equity Ratio[21]

A pooled OLS is used to regress the variables of the study. The model of Fixed/random effect was tested to find out the impact of D/E ratio representing leverage on the M/B value representing the stock market reaction. The resulting probability value proved to be insignificant which leads to the report the results of common effect model. The underlying statistical results are given in the table 48.

[20] Indicator used to measure the stock market reaction (SMRC)
[21] Indicator used to measure leverage (LEV)

Table 48: Regression Statistics to estimate the influence of D/E on M/B value with control variables

Variable	Coefficient	Std. Error	t-Statistic	P Value
D/E	**0.288525**	**0.089696**	**3.216699**	**0.0014*** **
FS	**0.270143**	**0.036315**	**7.438863**	**0.0000*** **
CE	**0.008849**	**0.003525**	**2.510425**	**0.0124** **
FG	**0.121314**	**0.062361**	**1.945359**	**0.0523* **
CF	0.047798	0.040755	1.172837	0.2414
D2	-0.214249	0.289704	-0.739545	0.4599
D3	-0.420867	0.440639	-0.955129	0.3399
D4	0.786310	0.440271	1.785970	0.0747
D5	0.543573	0.738667	0.735883	0.4621
D6	-0.159666	0.380738	-0.419359	0.6751
D7	0.204149	0.489053	0.417438	0.6765
D8	0.547400	0.692448	0.790529	0.4296
D9	0.412233	0.328727	1.254030	0.2104
D10	0.407960	0.564096	0.723210	0.4699
D11	0.173125	0.374434	0.462365	0.6440
D13	0.167762	0.404578	0.414659	0.6786
D12	-0.284713	0.373255	-0.762784	0.4459
D14	-0.056511	0.689876	-0.081915	0.9347
D15	**1.733954**	**0.975662**	**1.777208**	**0.0761* **
D16	0.713323	0.532917	1.338524	0.1813

D17	-0.121411	0.297466	-0.408150	0.6833
D18	0.250245	0.370945	0.674613	0.5002
D19	-0.639844	0.443035	-1.444231	0.1493
D20	-0.416221	0.975486	-0.426681	0.6698
D21	**1.102061**	**0.352791**	**3.123835**	**0.0019*** **
D22	0.399231	0.304941	1.309207	0.1910
C	0.219488	0.070720	3.103615	0.002

R-squared	0.202508
Adjusted R-squared	0.163460
F-statistic	5.186067
Prob (F-statistic)	0.000000
Durbin-Watson stat	1.604470

*Note: ***=significant at 1% level, **=significant at 5% level & *=significant at 10% level*

D/E=Debt/Equity, CE= Corporate Earnings, FS=firm size, CF= Cash flows, FG=firm growth, M/B= Market to Book Value, D=industry dummy

Table 48 represents the R square value which shows that 20% variation in stock market reaction is explained by the explanatory variables of the study. Furthermore, there are some other variables that contribute towards the variation in stock market reaction. The adjusted R^2 value explains 16.34% variation in market to book value that represents the stock market reaction with the consideration of the study control variables. The statistical values reveals a good fit of model as the probability value for F statistics is highly

significant at 1% level. The regression results for the period of 2003-2015 demonstrate that the explanatory variable of leverage proved to be highly significant at 1% level with 99% confidence interval. The debt to equity ratio used as a proxy for financial leverage is responsible for 28.85% impact on market to book value which is used as a proxy for stock market reaction. While the control variable of size and nature of industry has shown a significant probability with beta coefficients of 0.27 and 1.1 respectively. The firm growth demonstrate a significant positive influence on the stock market reaction with beta coefficient of 0.12. The beta coefficients of industry effect show that $D_{15,}$ the chemical industry and $D_{21,}$ food and personal care products industry proved to be the significant determinants of the stock market reaction. No other sector makes a significant effect to predict the stock market response as per the statistical results of historical data. The corporate earnings illustrate a negligible positive effect on the stock market reaction which is significant at 95% confidence interval for the time series data. It means that the corporate earnings may not be effective to prediction the stock market response.

Hence, the above mentioned results provide that the financial leverage has a significant positive impact on the stock market reaction. In addition, the firm size, firm growth, food & personal care products and chemical industry also possess significantly positive influences on the stock market reaction. In other industries from non-financial sector do not exhibit any significant influence on the predicted variable. These results agree with study hypotheses where H_1 and H_3 are accepted. The actual, fitted and

standardized residuals of the study are plotted in the figure 9.

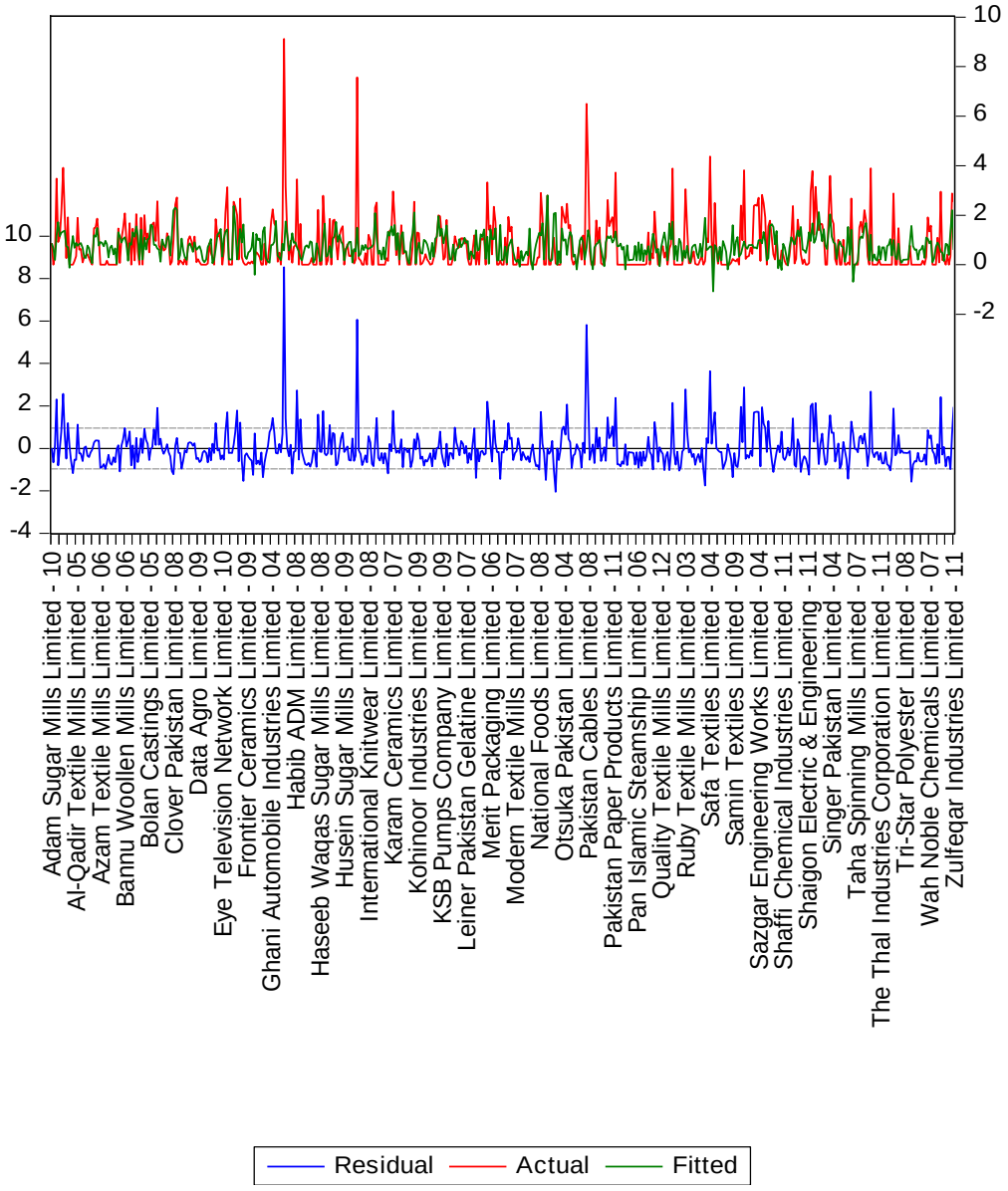

Figure 9: standardized residuals graph for the normality and heteroscedasticity testing (M/B)

5.92. Market to Book Value Verses Debt to Total Capitalization Ratio[22]

In order to find out the influence of predictor variables on predicted one, a pooled regression analysis was initially applied. Since, the attributes present unique characteristics with the application of the Hausman test, it is not wise to use common effect model. Hence, the common effect model was discarded to measure the influence of explanatory variables on the predicted variable. To test the correlated random effects of variables across time, Hausman test was applied to the time series data. The test results are significant with a probability of 0.046 and chi square statistics of 36.776 which proves that a significant difference exists among the characteristics of the attributes over time. Hence, the random results will be reported. The kind of regression is used to find out the impact of predictor variable on the stock market reaction taking into consideration the unique characteristics of the variables over time.

[22] Proxy used to estimate leverage (LEV)

Table 49: Regression Statistics to estimate the influence of DTC on M/B value with control variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTC	-0.117650	0.076886	-1.530177	0.1266
CF	0.049434	0.039738	1.243996	0.2141
CE	**0.007284**	**0.003523**	**2.067213**	**0.0392****
FG	**0.123544**	**0.061217**	**2.018143**	**0.0441****
FS	**0.280894**	**0.036488**	**7.698193**	**0.0000*****
D2	0.031197	0.278924	0.111847	0.9110
D3	-0.390332	0.432760	-0.901959	0.3675
D4	0.752284	0.447596	1.680722	0.0934
D5	0.547976	0.719607	0.761494	0.4467
D6	-0.084294	0.367675	-0.229263	0.8188
D7	0.130887	0.476771	0.274528	0.7838
D8	0.433291	0.676600	0.640394	0.5222
D9	0.308840	0.338819	0.911520	0.3624
D10	0.347583	0.556360	0.624746	0.5324
D11	0.077810	0.365604	0.212826	0.8315
D12	-0.460904	0.366208	-1.258583	0.2087
D13	0.130094	0.427466	0.304338	0.7610
D14	-0.151201	0.685906	-0.220440	0.8256
D15	**1.866741**	**0.961481**	**1.941527**	**0.0527***

D16	0.426486	0.517361	0.824349	0.4101
D17	-0.029901	0.298641	-0.100123	0.9203
D18	0.268501	0.380626	0.705419	0.4809
D19	-0.401763	0.431056	-0.932044	0.3517
D20	-0.380581	0.934572	-0.407225	0.6840
D21	**0.974433**	**0.357197**	**2.727996**	**0.0066*** **
D22	0.446749	0.305894	1.460468	0.1448
C	0.318665	0.079241	4.021454	0.0001
R-squared	0.170312			
Adjusted R-squared	0.129687			
F-statistic	4.192291			
Prob (F-statistic)	0.000000			
Durbin-Watson stat	.763914			

*Note:***=significant at 1% level,**=significant at 5% level & *=significant at 10% level*

DTC=Debt/Total capitalization, CE= Corporate Earnings, FS=firm size, FG=firm growth, M/B= Market to Book Value, D=industry dummy

The regression results represents that the debt to total capitalization ratio, a proxy for leverage doesn't estimate any significant influence on the stock market reaction measured by market to book value. Some literature studies also report a lack of relationship between leverage and firm value (Agrawal and Knoeber, 1996; Dessi and Robertson, 2003). Some other studies find that leverage is value-enhancing for low-growth firms and

value-destroying for high-growth firms (see McConnell & Servaes, 1995; De Andres Alonso, Iturriaga, & Sanz, 2005) while others find that the positive relation between leverage and firm value disappears even for low-growth firms when the industry effect is controlled (see Aggarwal & Zhao, 2007). Although, the regression statistics predict that the financial leverage (DTC) used in the model with other explanatory variables explains 12.9% variation in the stock market reaction with an adjusted R square of .129 while the R square value is .170, yet the beta coefficient of DTC is insignificant. The model is not mis-specified as the overall explanatory power of the model is extremely worthy as the F-value and significance F predicts. The value of significance lies at 0.00 with 99% confidence interval. The above mentioned table 49 illustrates the scores of R^2, adjusted R^2 and Durbin-Watson for the historical data. Therefore, the study hypotheses H_1 and H_3 are partially accepted. The standardized residuals are shown by the figure 10.

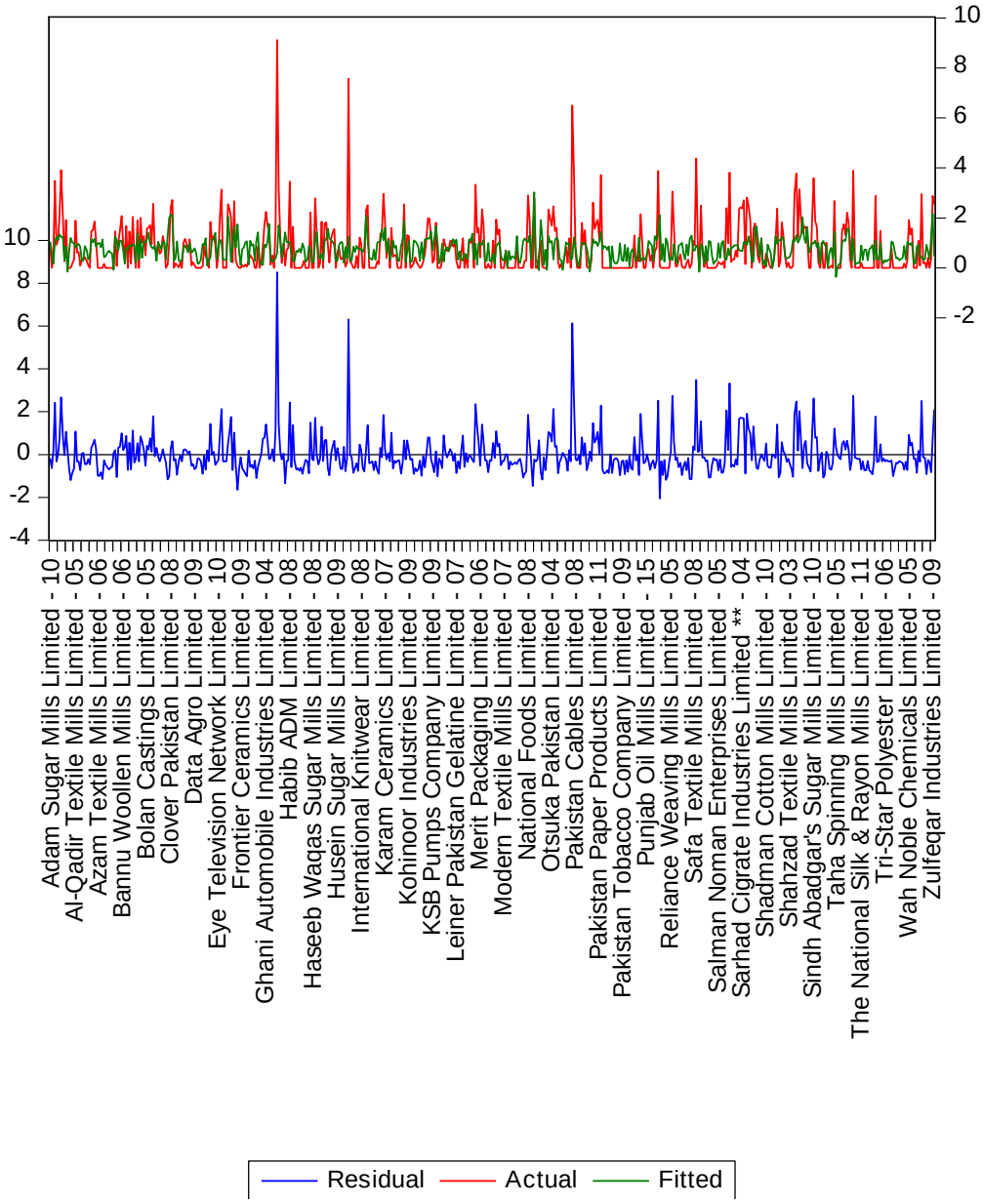

Figure 10: standardized residuals graph for the normality and heteroscedasticity testing (M/B)

5.10. Regression to measure the impact of Financial Leverage on stock market returns

The proxy for SMRN is rate of return RR whereas, the proxies to determine the leverage are debt to equity ratio and debt to total capitalization ratio as discussed in detail earlier (see chapter 3).

The equation (ii) refers to the stock market returns which is the function of financial leverage, size, cash flow effect, growth of firm, earning per share and the nature of industry. The mathematical equation for the stock market returns is given as follows;

$$Y_2 = \beta_o + \beta_1 Lev_{it} + \beta_2 FS_{it}, \beta_3 CF_{it} + \beta_5 FG_{it} + \beta_5 EPS_{it} + \beta_6 ID_{it} + \varepsilon_{it} \text{---- (ii)}$$

Where,

Y_2 stands for the predicted value of regression

β_o= constant coefficient for the regression line

$\beta_1 Lev_{it}$ = coefficient of financial leverage for the regression line

$\beta_2 FS_{it}$ = coefficient of firm size

$\beta_4 FG_{it}$ = coefficient of firm growth

$\beta_5 EPS_{it}$= coefficient of earning per share

$\beta_6 ID_{it}$= coefficient of industry dummy

and ε_{it}= Error Term

5.10.1. Rate of Return Verses Debt to Equity Ratio

The pooled regression approach is applied to regress the predicted variable against the explanatory variables of the study. The Hausman test is applied and the correlated random effects of variables are tested across time. The test examined a significant p< 1% and chi square statistics of 420.136. The statistics affirm the existence of significant difference among the characteristics of various attributes over time. Hence, the random results will be reported.

Table 50: Regression model to estimate the influence of D/E on RR value with control variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D/E	-0.488625	0.415346	-1.176429	0.2400
CF	**0.361323**	**0.176776**	**2.043964**	**0.0414****
EPS	**0.301666**	**0.021619**	**13.95357**	**0.0000*****
FG	-0.276540	0.306976	-0.900854	0.3681
FS	-0.032476	0.181996	-0.178445	0.8584
D2	-0.261447	1.189510	-0.219794	0.8261
D3	-0.463551	2.135817	-0.217037	0.8283
D4	-2.095333	3.070910	-0.682317	0.4953
D5	-1.577881	3.396232	-0.464598	0.6424
D6	0.171114	1.531485	0.111731	0.9111
D7	-1.721987	2.172080	-0.792782	0.4283
D8	0.433948	3.378750	0.128435	0.8979
D9	0.431931	1.489597	0.289965	0.7720
D10	1.521995	3.246342	0.468834	0.6394
D11	-0.109346	1.737732	-0.062925	0.9499
D12	0.753092	1.798830	0.418657	0.6756
D13	0.961542	4.088198	0.235199	0.8141
D14	0.214844	5.833308	0.036831	0.9706
D15	-0.343780	4.940822	-0.069579	0.9446
D16	-0.110687	2.231087	-0.049611	0.9605

D17	0.061203	1.268201	0.048260	0.9615
D18	-0.250897	1.634872	-0.153466	0.8781
D19	3.640476	1.998797	1.821334	0.0691
D20	-0.042704	3.573804	-0.011949	0.9905
D21	1.165567	1.701094	0.685187	0.4935
D22	-0.031763	1.317995	-0.024100	0.9808
C	-0.754894	0.566952	-1.331494	0.1836
R-squared	0.165527			
Adjusted R-squared	0.124668			
S.D. dependent var	4.859603			
F-statistic	4.051154			
Durbin-Watson stat	2.446666			
Prob (F-statistic)	0.000000			

*Note:***=significant at 1% level,**=significant at 5% level & *=significant at 10% level*

D/E=Debt/Equity, EPS= earnings per share, FS=firm size, FG=firm growth, RR= Rate of return, D=industry dummy

The regression approach is used to analyze the influence of explanatory variables on the predicted one. The debt to equity ratio, a proxy for financial leverage and the control variables including Cash flows (CF), Firm Size (FS), Firm Growth (FG), corporate earnings (CE) and the industry dummies are regressed with rate of return 'RR' representing the stock market returns as shown in the table 50. The regression square value tabulates as

0.165 with an adjusted R square of 0.1246 and reveals a model fit for the financial leverage, control and the predicted variable rate of return that measures stock market reaction. The F probability confirms the significance with 99% confidence interval. The value of R square explains 16.55% explanatory power of the model variables that effect the stock market return. Although the value of R square doesn't demonstrate a highly strong model fit as there may be several other variables that may affect the stock market returns yet the explanatory variables of the study contribute towards the estimation of stock market returns as agreed by the highly significant F statistics.

The beta coefficient of debt to equity ratio (D/E) shows a negative effect on the stock market returns but has an insignificant probability. It shows that the debt to equity ratio does not possess a significant influence to determine the rate of return. The industry dummies are found to be insignificant as illustrated by the table 50. Therefore, overall the explanatory variables in a random effect model do not show a strong significance of beta coefficients as their attributes vary over time. The cash flow effect is significant at 0.05 level which shows that CF proves to be a good predictor of the stock market returns. The beta coefficient value asserts that the Cash flows are responsible for a handsome amount of variation i-e 36% to determine the stock market returns. The earnings per share (EPS) used as proxy for corporate earnings account for 30percent influence on the predictor with a highly significant value at 0.00 level.

Hence, the regression test results show that the debt to equity ratio (D/E), firm growth (FG), firm size (FS) and nature of industry (ID) make an insignificant influence to

determine the rate of return (RR). On the other hand, the firm cash flow (CF) and corporate earnings (CE) exhibit a highly significant impact on the rate of return (RR). Therefore, the regression results do not affirm the study hypothesis H_2 in case of debt to equity ratio while agrees partially with H_4 that states the influence of other variables on stock market returns. The residuals plot to confirm the null hypothesis of heteroskedasticity is given in the figure 11.

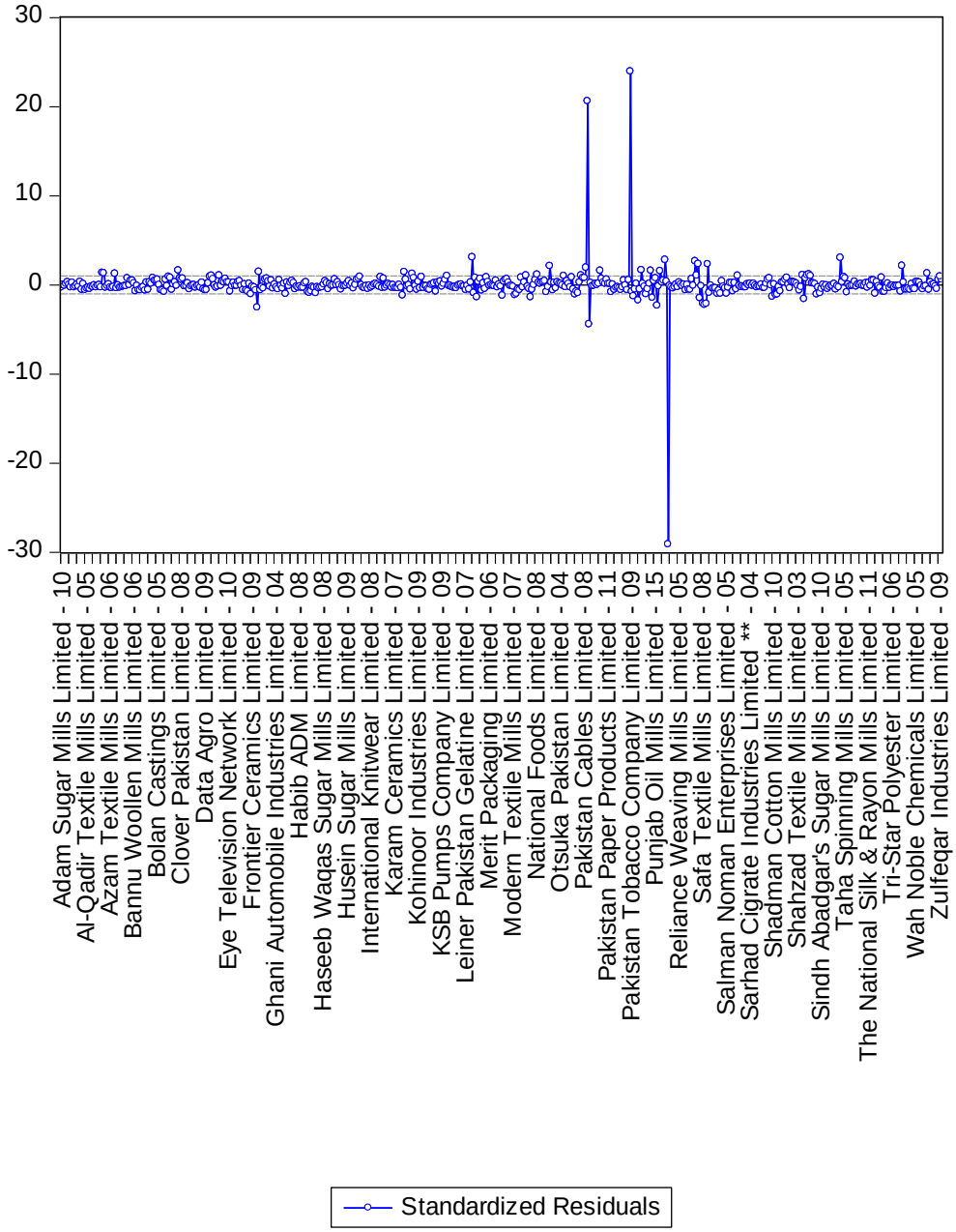

Figure 11: standardized residuals graph for the normality and heteroscedasticity testing (RR)

5.10.2. Rate of Return Verses Debt to Total Capitalization Ratio

To find out the impact of financial leverage on the stock market returns, the pooled regression analysis is conducted for the time series data. The Hausman test is used to estimate the correlated random effects of variables across time. The test results demonstrate a significant probability of 0.00 and chi square value equal to 428.18 which proves that a significant difference exists among the characteristics of the attributes over time. Hence, the random results will be reported.

Table 51: Regression model to estimate the influence of DTC on RR value with control variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTC	**0.900277**	**0.370992**	**2.426674**	**0.0156****
CF	0.286974	0.177606	1.615788	0.1067
EPS	**0.306360**	**0.021536**	**14.22559**	**0.0000*****
FG	-0.374475	0.306883	-1.220253	0.2229
FS	-0.119689	0.180967	-0.661385	0.5087
D2	-0.846529	1.186582	-0.713418	0.4759
D3	-0.950915	2.138363	-0.444693	0.6567
D4	-2.195177	3.052820	-0.719065	0.4724
D5	-1.746193	3.381165	-0.516447	0.6058
D6	0.313113	1.526220	0.205156	0.8375
D7	-1.638899	2.162998	-0.757698	0.4490
D8	0.927478	3.360951	0.275957	0.7827
D9	0.494283	1.482875	0.333327	0.7390
D10	1.639155	3.228499	0.507714	0.6119
D11	0.189579	1.731963	0.109459	0.9129
D12	0.740072	1.789585	0.413544	0.6794
D13	0.662277	4.055020	0.163323	0.8703
D14	0.605828	5.785252	0.104719	0.9166
D15	-0.731887	4.919404	-0.148776	0.8818
D16	0.080828	2.219535	0.036417	0.9710

D17	0.105479	1.262759	0.083531	0.9335
D18	-0.668111	1.635351	-0.408543	0.6830
D19	2.939544	1.982840	1.482492	0.1388
D20	0.389705	3.561323	0.109427	0.9129
D21	1.147433	1.692149	0.678092	0.4980
D22	0.229196	1.303136	0.175880	0.8605
C	-1.175905	0.582889	-2.017374	0.0442

R-squared	0.170417
Adjusted R-squared	0.129797
S.E. of regression	4.549088
F-statistic	4.195398
Durbin-Watson stat	2.449868
Prob (F-statistic)	0.000000

*Note: ***=significant at 1% level,**=significant at 5% level & *=significant at 10% level*

DTC= debt to total capitalization, EPS= earnings per share, FS=firm size, FG=firm growth, RR= Rate of return, D=industry dummy

Table 51 illustrates the statistical analysis of the regression run to find the influence of explanatory variables on the stock market returns. The regression coefficient value is calculated as 0.17 which reveals that the study explanatory variables contribute 17% to

determine the rate of return (RR) used as a proxy for the measurement of stock market returns. The model fit is confirmed by the probability of F statistics as it is highly significant at 0.00 level with 99% confidence interval. Hence, the model is reliable.

The beta coefficients for the random effect model of the regression are also given in the table 48. The beta coefficients represent that financial leverage make a significant influence to examine the stock market returns as the beta coefficient value for debt to total capitalization (DTC) is .90 and is highly significant. Among the other variables, the earning per share (EPS) being used as a proxy for corporate earnings (CE) demonstrate the beta value of .36 which is statistically significant at 1%. The t statistics of the above stated variables stay aligned with the tabulated value of 2.

Hence, the debt to total capitalization (DTC) and the earning per share (EPS) proves to be highly significant predictors of the rate of return (RR). On the other hand, the cash flows (CF), firm size (FS), firm growth (FG) and the nature of industry (ID) doesn't make any significant effect on the stock market returns. The tolerance and VIF values conclude the absence of multi-collinearity among the items as the computed values lie within the acceptable range. The study results completely agree with study hypotheses H_2 and partially with H_4. The standardized residual graph illustrates the absence of heteroskedasticity among the variables (see figure 10)

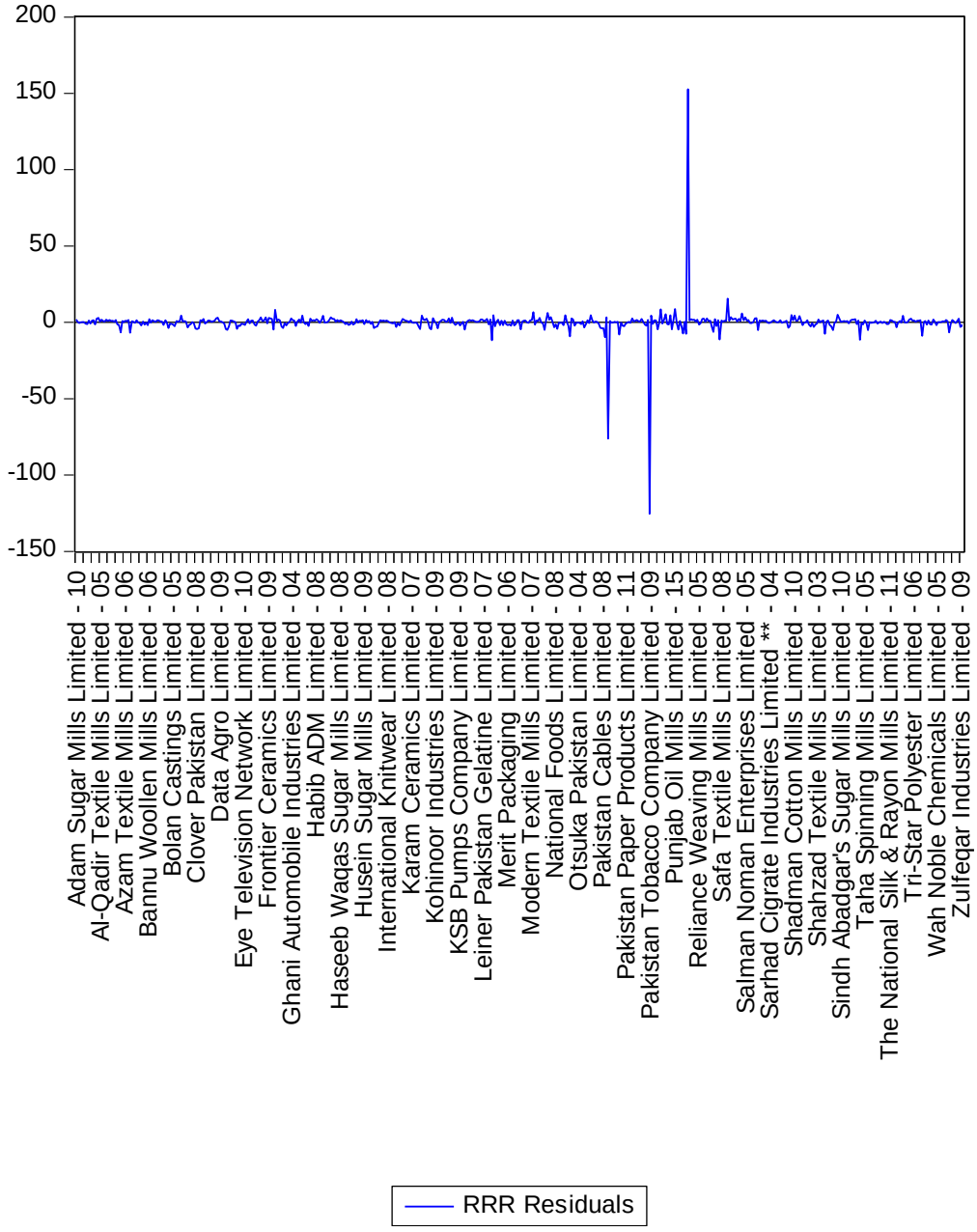

Figure 12: standardized residuals graph for the normality and heteroscedasticity testing (RR)

Therefore, the secondary data analysis conclude that the financial leverage measured in terms of debt to equity ratio approves a significant positive impact on the stock

market reaction (SMRC). While the debt to total capitalization ratio (DTC), another proxy for leverage doesn't examine any significant influence on the stock market reaction (SMRC) measured by market to book value. Furthermore, the firm size (FS), firm growth (FG), corporate earnings (CE), food & personal care products (D_{15}) and chemical industry (D_{21}) also possess significantly positive influences on the stock market reaction. The other industries do not state any significant impact on the predicted variable.

The regression results indicate a highly significant impact of the debt to total capitalization (DTC), firm cash flow (CF), the earning per share (EPS) and corporate earnings (CE) on the rate of return (RR) representing the stock market returns. While debt to equity ratio (D/E), firm growth (FG), firm size (FS) and nature of industry (ID) do not make a significant impact to compute the rate of return (RR). Hence, H_1 is completely accepted while and H_2 is accepted in case of DTC while the results do not agree in case of debt to equity ratio. The H_3 and H_4 are partially accepted as few variables doesn't possess the statistics in agreement.

In short, a chapter conclusion may be drawn as the financial leverage confirms its partial influence on the overall stock market response which is the combination of stock market reaction and stock market returns. Among the other explanatory variables, the firm size (FS), firm growth (FG), corporate earnings (CE), Cash flows (CF), the food & personal care products (D_{15}) and chemical industry (D_{21}) proved to be the significant determinants of the stock market response. The discussion on statistical results of secondary data and

their comparison with the primary data results and literature is provided by the next section of the study.

CHAPTER 6

DISCUSSION AND ANALYSIS

This section provides a detailed comparative analysis of the primary and secondary data results and the statistical findings of the current study. As the study intends to provide a comprehensive comparison of the primary data results for the study variables based on the opinions of equity investors with the secondary data results extracted from the historical time series fact sheets. The observations made in this research and statistical results also discussed and compared with the opinions of the other authors in the relevant area in literature review. The inconsistencies in the study findings in comparison with that of previous studies are reviewed critically with the possible reasons for the differentials in the study results.

6.1. Financial leverage and Stock Market Response

In this study, the financial leverage confirms its positive influence on the overall stock market response which is the combination of stock market reaction and stock market returns. The coefficient of correlation between the stock market reaction and stock market returns is calculated as .621** with 0.01 significance level as per the responses provided by the equity investors investing at Pakistan stock exchange (see table 22). While the company managers also determine a. significant .538** relationship of both the indicators of stock market response (see table 21). Some other authors like Haugen and Senbet (1998)

provided that the future value of a company is lessened by the implication of lesser future debt as Ross (1977) states that the increase in leverage conveys positive signals as the capacity to service debt is larger. So, as the firm's leverage decrease, it is an alarming news in the market.

Previously, Abbas, Qaisar and Rashid (2011) assert that several firms were bankrupted during 1996-2006 in Pakistan due to financial distress as the beta of firm increases with increased debt financing (Hamada, 1972 & Rubinstein, 1973). Launie (1974) developed some models and illustrated in his paper that the return on equity is reduced with the increasing cost of debt when it approaches beyond the optimal ratio. Hence, an optimal capital structure may be designed by minimizing the cost of debt.

In addition, Holz (2002) states that the firm's leverage level and its performance are significantly and positively associated with each other. On the other hand, the debt to total capitalization ratio used as a proxy for leverage in this study doesn't estimate any significant influence on the stock market reaction measured by market to book value supported by Abor (2007). The author stresses that financial performance is influenced by the capital structure though not significantly. The coefficients of correlation in secondary data analysis of the study also support the verdict that the financial leverage has significant but negative relationship with the stock market returns (see table 50). But the magnitude of such association is not that much high. While the debt to equity ratio (D/E) makes an insignificant influence to determine the rate of return (RR) used as a proxy for stock market returns taken as a determinant of the overall stock market response.

Previously, Hull examined in 1999 that the announcements decline in the response to leverage and its dependence on the variation of a firm's debt to equity ratio with that of industry average is reported. An argument for the deviation between the market price of the company's securities and the original firm value is provided by Myers and Majulf (1984). They state that the investors possess inadequate information about the value of company's assets; thus, mispricing the equity. Consequently, the return on equity, dividend growth, earnings growth and the market valuation of common stock are directly tied to leverage particularly in the theory (Modigliani and Miller, 1969). The research results Hatfield, Cheng, and Davidson (1994) confirm the finding of Modigliani and Miller (1958) considering the irrelevance of financial leverage and the firm's value.

While Jahankhani and Sajadi (1995) describe the growth in earnings, paid dividends, asset return, equity return and Tobin ratio Q as the most significant accounting criteria of a firm's performance evaluation. The results of this study affirm the linkage between the financial leverage and firm valuation/performance as per the opinion of both the corporate managers as well as investors. They illustrate that the leverage exhibit a highly significant positive relationship with the stock market reaction and stock market returns.

The key point emerging out of the study results comparison is that not only the finance managers of the non-financial sector companies listed at Pakistan Stock Exchange but also the equity investors making investments at PSX agree with the fact sheet statistical analysis. The two primary data sets inclusive of the responses collected from company's

management and stock investors and the secondary data set converge at the same point that financial leverage makes a significant positive impact on the stock market response determined by the stock market reaction and returns. Such results provide that the norms of stock market are duly set and verified by the trends projected in the historical fact sheet data. It means that psychology of investors while deciding about their investments in leveraged companies stock is same as that of the companies' management about market at the time of making financial decisions. Hence, in the process of financial decision making, the managers of the non-financial sector companies listed at Pakistan Stock Exchange consider the impact of financial leverage on the stock market response as the market reacts to the leverage as the study secondary data results and literature provide. On the other hand, the equity investors are also keen to consider the stock market response when they make their investment decisions.

In short, the financial leverage determines the stock market reaction and returns which merge to form a complete stock market response which is not only confirmed by the data sheet analysis but also by the financing and investment decisions makers. But some disagreements exist with the introduction of control variables into the model. The research provides an empirical evidence and a bottom line for decision making and is helpful to set a guide line for both the parties to make better financing and investment decisions keeping in view the stock market response in order to get the maximum returns.

The common perception about the firm's value in market demonstrate a relevancy with the financing decisions of managers (Staking & Babbel, 1995). The technique of

financial management for the risk of interest rate influence the firm value. As a consequence, the financial leverage compared to the value of equity in the market quickly declines with the increased interest rate risk. The scenario arises when the owners of the firm are incapable of hedging the interest rate risk or of realizing the maximum value of franchise when the increased rates of interest makes the firm riskier. If the financial leverage augmented to some extent above the uncertain levels, the firm's value of franchise is raised but at a diminishing rate where the franchise value is determined by Tobin's Q.

As per the managers' opinion the findings of hierarchal (table 24, 27) and stepwise regression (table 25, 28), the nature of industry, corporate earnings, cash flows and the firm growth makes the most influence on the stock market response overall. As per the investors' opinion, the hierarchal (see table 30, 33) stepwise (see table 31, 34) regression results approve that the most influencing variables on the overall stock market response are found to be the cash flows and corporate earnings after leverage. These factors need to be given prior attention while making the financing decisions in the view of equity investors as they consider the above mentioned variables in their investment decision making. As far as, the fact sheet historical data results are concerned, the financial leverage seems to make a positive influence on the overall stock market response. The debt to equity proxy of leverage (table 48) show a significant impact on market to book value, a proxy for stock market reaction confirming that the increase in leverage drive the market up in terms of higher market to book valuation. Whereas, the D/E proves to be an insignificant predictor of the stock market returns (table 49) proxies by historical rate of returns

(EPS/MPS[23]). The debt to total capitalization ratio, another indicator of leverage computes insignificant influence on market to book ratio, a proxy for stock market reaction (see table 50). It illustrates that the debt to total capitalization doesn't determine the stock market reaction historically. However, the ratio makes a significant positive influence on stock market returns (table 51). It means that the stock market returns may be enhanced if the debt to total capitalization ratio or leverage is increased.

Among the other explanatory variables of the study indulged in hierarchal regression, the firm size (FS), firm growth (FG), corporate earnings (CE), cash flows (CF), nature of industry 'ID' particularly the food & personal care products (D_{15}) and chemical industry (D_{21}) proved to be the significant determinants of the stock market response (see table 48 & 49). The literature recommends that industry debt to equity ratio norm serves as proxy for wealth maximizing debt to equity ratios. The optimal models expect a reduction in the value of firm when firm moves away from its optimal debt to equity ratio keeping all other factors constant. Greater fluctuation in the potential rates of return to the leveraged shareholders refers to a greater risk as mentioned by Markowitz and Sharpe (1952 and 1964).

[23] EPS/MPS refers to the earnings to price or earning yield ratio which is used as an indicator to represent stock market returns.

6.2. Theoretical Justification for the positive relation of leverage-stock market response

Aggarwal, Kyaw and Zhao (2008) provide some reasons for the possible relation between leverage and firm value some firms in one country and negative among other firms of another country. The author explains that such differences may be driven by the international differences in the resolution of the agency problems. The negative relationship between the firm leverage and its value found in the literature could be driven by the endogeneity of financing decisions. For instance, the firms with highly valued equities are more likely to issue equity, leading to lower leverages. It is unclear from the existing literature whether the problem of underinvestment[24] reduce the firm value beyond the impact from the endogenous financing decisions.

Furthermore, the countries differ in their legal and institutional environments and in the effectiveness of protection of creditor rights. Hence, the value effect of debt can be expected to differ internationally as a response to differences in the effectiveness with which agency problems between shareholders and creditors are resolved. The study further elucidates that debt may be value enhancing in many non-US and non-common law settings especially for low growth firms even after accounting for international variations in GDP per capita, stock and bond market development and in the development of the banking sector. These variations in the leverage-firm value relation are driven by the different levels

[24] An underinvestment problem is an agency problem between shareholders and debt holders where a leveraged company foregoes valuable investment opportunities because debt holders would capture a portion of the benefits of the project, leaving insufficient returns to shareholders.

of legal environment and financial development in different countries. The leverage is found to be not significantly related to firm value in common law countries and positively related to firm value in civil law countries. It provides a logic that the leverage effect for the current study proved to be positive with respect to the stock market response as the legal environment and the level of financial development differs in Pakistan from that of international world. Weill (2003) also supports that the creditors' right protection may enhance the performance in response to firm leverage. The creditors' protection give them higher level of confidence and the agency conflict between firms and creditors may be reduced.

Aggarwal, Kyaw and Zhao (2008) further suggest that the higher level of stock market development in a country and the legal enforcement reduces the firm value with leverage while a more developed banking system makes leverage value-enhancing. Therefore, the leverage persists a positive influence on the stock market response in the stock market of Pakistan as the market is not highly efficient and still struggling for further development. The information asymmetry between insiders or managers and outside investors is lower in a country with developed stock market. Therefore, the cost of outside equity financing is lower and the optimal capital structure reflects lower leverage levels with higher leverage hurting firm value. Higher stock market development makes the relationship of leverage with firm value more negative or less positive

Furthermore, a positive leverage and stock market response in the Pakistan Stock Exchange may exist due to intense competition in the banking industry. The performance

enhancement strategies in the local banking system, financial institutions and credit agencies provoke the institutions to focus on long term relationship building with customers. This is essential for them to increase the switching costs for their clients for increased profit margins and survive in an environment of intense competition. As Aggarwal, Kyaw and Zhao (2008) also document that the balance in the conflict of interest between shareholders and creditors can be affected by each country's legal environment and financial development. Particularly, the bank debt is generally associated with less information asymmetry between shareholders and the creditor banks to provoke relationship banking. Such association helps particularly during the period of financial hardship as it becomes easy for a firm to renegotiate debt to avoid default or bankruptcy with a bank with which it has a sustainable long-term partnership than with anonymous investors in the public bond market. Similar situation reflects in the financial markets of Pakistan where bonds market is not developed and the bonds are not traded frequently on large scale. Therefore, maximum reliance of the local firms for their external financing needs depend upon the financial institutions. Following such reasoning, the orientation towards banks and other financial institutions helps to reduce the agency problem between shareholders and creditors leading to the relationship between debt and firm value less negative. The authors also approve that the relationship between leverage and firm value should be more positive or less negative in the countries which are more oriented towards bank financing.

Cheng and Tzeng (2003) draw a conclusion that the leveraged firm possess values greater than that of an unleveraged firm if bankruptcy probability is ignored. Secondly, the benefit and cost of debt is considered simultaneously, the leverage is significantly positively related to the firm value before the attainment of firm' optimal capital structure. Thirdly, a positive influence of leverage on the firm value is observed and it tends to be stronger with the better financial quality[25] of the firm. In the context of Pakistani financial market, due to weak follow up procedures for debt repayments, the firms seem to be less conscious about the chances of bankruptcy with the increased risk.

González (2013) conducted a study for 10,375 firms in 39 countries over the period 1995–2004 by using a generalized method of moments. The results conclude that the French civil law countries demonstrate a positive influence of leverage on operating performance when the industry has suffered a downturn. It provides a valid justification for the positive impact of leverage on the stock market response as the economy of Pakistan is going through overall recession and a generic downturn in all the industries is observed over the period of time. Hence, the weak economy of the country also provide a reasoning for such positive relationship.

In addition, Holz (2002) states that the firm's leverage level and its performance are significantly and positively associated with each other. Moreover, Wipern (1966), Ronald (1983), Adeyemi and Oboh (2011). Jameel (2013), Jermais (2008), Fosu

[25] Financial quality is measured by z score of working capital/ total assets, retained earnings/ total assets, EBIT/Total assets, MV/BV, Sales/ Total assets.

(2013), Barakat (2014), Farooq and Masood (2016) and Akhtar, Khan, Shahid and Ahmad (2016) also illustrates positive relationship of leverage with the firm value and performance. Aveh and Awunyo-Vitor (2017) suggest an empirical evidence for a positive and significant relationship between ROE, EPS, BMVS and market capitalization signifying that such variables are major determinants of the market price of shares on the Ghana Stock Exchange. The research findings are aligned with Ozdagli (2009) who reveals that the value of the company varies with the change in leverage in the same direction. Hence, the study results differ from that of the capital structure theories which state a negative relationship of leverage and firm value under certain constant assumptions. When these assumptions are relaxed or applied to the different countries where the circumstances change as per the environment, the value impact of debt should also be expected to differ internationally.

Previously, the literature measures the leverage impact on value by using book measures like return on assets, return on equity, Tobin's Q[26] and so on. This research not only takes into account the book measures but also the market oriented performance of the firms to measure the value and suggests an increase in the ultimate value in the market which is a bit contradictory with the **tradeoff theory**. The tradeoff theory assumes that *suboptimal level of debt in the company increases cost of debt than its benefit. The situation may create adverse impact on shareholders' value.* Though the costs of company are

[26] Tobin's Q takes into account the value of equity including its market value and compares with the value of debt. Hence, the increments in market value of equity compared with it book performance is overlooked.

increased by using the suboptimal level of debt, yet at the market response to measure the value of the firm is still positive. Furthermore, the study reveals that the behavior of local investors towards investment in risky companies and generates a positive stock market response opposing the judgment of the Prospect theory that generally the investors are risk-averse.

The study results document that *the market efficiency theory* doesn't hold strong in the developing country's market as the level of information with each investor differs for the rational decision making of investors. The uneven dissemination of market information with the investors while investing in levered companies' stocks may serve as a basic reason for the market deviation from theoretical standards.

Finally, the lack of relationship between financial leverage and value of firm stated in MM theory proves to be inconsistent with the current study observations in the context of the stock market in Pakistan. The stated reason seems to be the weaker efficiency of the developing country's local market and the application of taxes in the local economy.

6.3. Financial leverage and Stock Market Reaction

The stock market reaction is measured by market to book value in the current study as Pratt (2011) asserts that market value to book ratio is determined after dividing market value of a firm's stock to its book value. The ratios equivalent to 1 show that a firm's net book value is achieved by the market as a good reflection on the firm's true value. Forgue (2012) says that market to book ratio is an indication of the premium which an investor

pays for the net assets of a firm. Moridipour and Farrahipour (2013) assert that the ratio of market value to book value of equity reveals the return on that equity; hence, this ratio greatly affects shareholder value.

The statistical results of primary data based on the opinion of both the corporate managers as well as investors affirm that the financial leverage demonstrates a positive relationship with the stock market reaction and stock market returns which is highly significant. The leverage model presents a highly significant positive influence on the stock market reaction as supported by the beta coefficient of 58.1%. In the view of equity investors, the leverage has a positive significant impact on the stock market reaction and returns with a beta coefficients of .597 and 0.632 respectively (see table 22). It predicts that the managers of the companies need to concentrate upon the expected stock market reaction and returns while making their financing decisions as their investors also look for such market responses in their investment decisions. In other industries from non-financial sector do not exhibit any significant influence on the predicted variable. These results agree with study hypotheses H_1 and H_3.

As per the results of data collected from company managers, the firm size proved to be highly correlated with the stock market reaction showing a coefficient of correlation equal to .537**. The cash flows, the firm growth, corporate earnings and the industry dummy demonstrate 40%, 36%, 31.5% and 31.1% relationship with the stock market reaction respectively (table 21). The collective impact of the leverage on the stock market reaction in the presence of control variables estimate the highest contribution of firm size

that is highly significant. The corporate earnings (CE) and industry dummy (ID) confirm an influence on the stock market reaction. The findings categorize the FS and FG as the control variables that carry an insignificant impact on SMRC.

A positive correlation between stock market reaction and cash flow effect is observed that proved to be the highest degree of relationship among the control variables followed by the corporate earnings, ID and FG. The relationship of firm size is insignificant and negligible with the predicted variable as defined by the equity investors' opinions. All the control variables except industry dummy and firm growth are showing significant beta values and measuring a highly significant impact of each variable on stock market reaction along with leverage.

The historical time series fact sheet data results conclude that the financial leverage demonstrates a highly significant positive impact on the market to book ratio which is used as a proxy of stock market reaction. Previously, Lucas and McDonald (1990) determined a relationship with the financial leverage and market to book ratio by providing that low leverage companies possess higher market-to-book ratio and follow the pecking order pattern of financial policy and reserve the financial slack to reduce the internal funding and to finance the acquisitions and capital expenditure. Mc Laughlin et al. and Gombola et al. in 1998 whereas Smith and Watt in 1992 approve that the seasoned equity offerings produce a more negative market reaction when the firms possess higher growth opportunities than those having less opportunities for growth. The argument about financial conservatism as a temporary financial policy stays inconsistent with the findings of

Lemmon et al. (2008) who recommend that companies demonstrate stable leverage ratio over time. Bhat and Sultan (2011) further stated that as compared to the conventional and social stocks, the stocks issued under Shariah Compliant companies are actually low leveraged stocks; and thus, are less vibrant to leverage risks.

The capitalization ratio makes an insignificant influence on the stock market reaction agreed by Abor (2007) that financial performance is influenced by the capital structure though not significantly. The financial leverage estimated by debt to equity ratio illustrates a highly significant positive relationship with the market to book value which is used as a proxy to measure the stock market reaction. On the other hand, the debt to total capitalization ratio, a proxy for leverage doesn't estimate any significant influence on the stock market reaction measured by market to book value. The possible reason for the differential seems to be the calculation difference due to different denominators as the capitalization ratio includes the obligations of the company in its dominator.

Baker and Modigliani and Miller (1958 and 1963) assert that there exists an inconsiderable relation between financial leverage and company's value unless the companies function in a taxable environment where tax payouts may influence the capital structure. But Masulis (1983) provides a literature support to the results of this study. The author suggest a positive market reaction for the levered companies as they move toward the industry average from below. According to DeAngelo and Masulis (1980) and Masulis (1983), the firms opt for the most appropriate level of debt and such variation in the level of debt from that of the industry norms may influence the firm value.

Staking and Babbel (1995) follow Masulis to agree that a broad view about the firm's market value are association with the management decisions of a firm's financing strategies. The financial management of a firm affects its value due to risk of interest rate and that of leverage as the increased risk of interest reduces the market value of equity all of a sudden. Furthermore, Pandey (2001) show a positive relation between value effect and the levered stocks. Wurgler (2002) indicate the persistence of market valuation impact on company's capital structure with the help of market to book ratio. Weill, (2003) determine a positive relation between financial leverage and the corporate performance as well. He further elaborates that the creditors' right protection may enhance the performance in response to firm leverage. Mule (2015) determine a considerable positive correlation between M/B ratio and the premium paid by the investors against the firm's assets. He reveals that firms having high B/P ratio possess high profitability levels as compared to the firms having low B/P ratio.

Another study conducted by Hatfield, Cheng and Davidson (1994) show a disagreement with the findings of current study as they assert that the market doesn't consider the much the relationship between the debt level of the firm and that of the respective industry. The authors affirm the irrelevance of financial structure and the value of firm and second the verdict of Modigliani and Miller (1958). On the other hand, authors determine the variation in the financial leverage require no alteration in the pre event tax position of originating firms to influence the variation in the value of the firm (Pinegar & Lease, 1986). Booth, Aivazian, Kunt and Rajan & Zingales (1995) also expected a negative

association as the cost of financial sufferings increase in those firms having high M/B value ratios as compared to firms having low Market to Book. Furthermore, Haugen and Senbet (1998) observe that the future value of the firm is reduced by the implication of reduced future debt.

Oghlo and Mohajan (2006) enumerate the capital structure and ratio of market value to book value stating that capital structure of firms is negatively associated with market value to book value ratio as there exists an inverse relation between firm's financial leverage and market value to book value ratio. A negative relation to be triggered by a subset of companies having higher market to book ratio was found by Chen and Zhao (2006).

In addition, Welch (2004) highlights the other side of leverage determined by market valuation of companies. He examines that driving force of leverage ratio is related to its market valuation of equity. Companies do not impose counter measures for offsetting alterations in the leverage ratios which stem from variations in market valuation. While recourse to debt financing, companies having encouraging equity market valuation are more prone to issue equity by deviating away from their original leverage ratio. It adheres to the fact that firms prefer external financing cost as compared to their target leverage ratio. Moreover, companies having high profitability actively (instead of passively) go for internal instead of external funds for avoiding the external financing cost resulting in a negative relation between profitability and leverage ratio.

Therefore, a unanimous response of company managers and equity investors has been reported by the study observations which is also affirmed and concluded by the secondary data observations. Both the primary data sources suggest the same behavior as the reported figures demonstrate in the time series data about a positive influence of financial leverage on the stock market reaction. But some disagreements reported when the control variables are regressed with financial leverage against the stock market reaction in the model. The figures data sheet presents ID (food and personal care products and chemical industry), FS and FG proved to be the attributes that make a considerable significant impact on SMRC with LEV (table 48) while the corporate earnings (CE) exhibit a highly significant but a slight influence on SMRC (see table 49 & 50). It is also confirmed by the company managers that ID, CE and FS excluding FG make a significant influence while CF score insignificant values and they consider these factors while making their financing decisions to determine the possible reaction of the stock market. On a contrast, a difference of opinion exists in the view of equity investors who conclude that CF, CE and FS except FG makes significant influence on SMRC whereas, the nature of industry (ID) does not bother their investment decisions. Hence, only the CF effect and industry effect differs in the investors opinion in the stock markets in practice.

The findings of stepwise regression analysis predict that the industry dummy and the Cash flows of a firm show the maximum impact on stock market reaction out of all other variables and bring a significant R square change as per the managers' opinion. As per the view of investors, the software ranks the CF as the prior most factor

to bring about a change in R square as per the investors; opinion. The investors also agree that these are the corporate earnings CE which also make an impact secondary to the CF on the stock market reaction SMRC.

6.4. Financial leverage and Stock Market Return

The study findings confirm that the financial leverage is strongly and significantly correlated with SMRN (stock market returns) in the viewpoint of equity investors. The coefficient of correlation provide that a quite strong relationship exists between the LEV and SMRN as the coefficient is 0.597^{**} which is highly significant at 0.01 (table 22). The financial leverage also generates a highly significant positive impact on the stock market returns as with the control variables other than ID and FG which are proved to be insignificant in the opinion of equity investors. It reveal that the investors are keen to consider the cash flow effect, firm size, the corporate rate of earnings while making their investment decisions in the levered firms. But the industry effect and firm growth doesn't affect their psychology or senses while making investments in the levered firms while showing their concerns towards stock market returns.

In the view of company managers, the financial leverage explains a 16.1% variation in the stock market returns with extremely significant model fit and explanatory power (table 29). The control factors other than nature of industry do not bother the company managers while making the financing decisions keeping in view the stock market returns.

The secondary data results enumerates that the debt to total capitalization (DTC) and the corporate earnings (CF) proved to be the highly significant predictors of the rate of return (RR) representing the stock market returns. On the other hand, the cash flows (CF), firm size (FS), firm growth (FG) and the nature of industry (ID) doesn't make any significant effect on the stock market returns (table 51). The D/E also depicts an insignificant impact on the stock market returns contrary to the debt to total capitalization ratio used as a proxy for financial leverage which confirms a significant positive impact to determine the stock market returns (table 50). The coefficients of correlation for D/E ratio suggest that the financial leverage has significant but negative relationship with the stock market returns. But the magnitude of such association is not that much high. Hence, the significant results are considered to illustrate the study hypotheses. Findings from literature also suggest that the correlation analysis presents a significant association between debt/equity ratio and the financial performance (measured by ROE) of the firms. Ward and Price (2006) concluded a direct and significant relationship between leverage and profitability. Sharma (2006) found that leverage and performance are positively correlated. Lasher (2003) concluded a positively relationship between debt ratio and earnings per share and return on equity as profitability proxies. Though, there are others who observe no significant relation between such variables (Abubakar, 2015). Therefore, the different results from D/E ratio and DTC ratio may exist due to their composition and denominator difference.

There exists a consensus among the equity investors, the managers of the companies and the historical figures from books of accounts for the presence of relationship between a firm's leverage and the proportionate returns from the stock market. A significant positive influence of leverage (LEV) is observed on the stock market returns (SMRN). Hall and Weiss (1967) established the occurrence of considerable relation between greater equity/debt ratio to profitability. It also determined the influence of reduced risk on the increased profitability rate. Another research that proved an existence of relationship between the leverage and stock market returns was conducted by Lauraly (2008). The author observed the impact of book to price ratio and effectiveness of past stock upon present financial leverage concluding that book to price and the historical efficiency has a great impact upon financial leverage. Florou and Chalevas followed in year 2010 by analyzing 861 company-year observations from Athens Stock Exchange with the help of cross-sectional analysis and evidence an influence of operational performance (estimated by the financial leverage, net profit margin, the firm's asset return and turnover), growth prospects and ability to generate sales on the stock return.

After segmenting the given sample into smaller and larger debt free companies, Byoun (2013) finalized a positive relationship and illustrated that the firms with small debt free ratios are less profitable as compared to the firms with large debt free ratios. Arslan (2014) also asserts that increase in dividend yield leads to reduction in stock prices whereas stock market price exposes an upward trend with the increase in price to earnings ratio

revealing a considerable positive correlation between them. Such literature findings support the current study statistical findings.

Though, Fama and French (1992) argue that book leverage and the market return on firm's stock are negatively related followed by market leverage while Staking and Babbel (1995) examine a rise in the value of the firm's franchise at declining rate with the rising trend in a firm's leverage but at a modest level. Rajan and Zingales (1995) describe that the variation in the profitability demonstrates a negative relation with the reported variations in a firm's leverage with constant dividend and investments when the debt financing is opted as the major mode of financing in short run. As stated by Mohammad Nishat (2000), the greatly leveraged firms in Pakistan have strong negative relationship between the reported returns and the estimated volatility as compared to the lesser leverage companies.

Muradoglu and Sivapradad (2008) used MM model and elaborated it further to investigate the relationship of leverage with stock market returns. The authors discussed the impact of leverage on Utilities and Oil & Gas industries and reported a negative connection between the leverage and returns earned on Stock. Adami, Gough, Muradoglu, Sivaparasad (2010) further support Muradoglu and Sivapradad (2008) and present a relevance of unusual Stock market Return with Leverage by further expanding the work of Modigliani and Miller. They analyzed the abnormal returns while using the Capital Asset Pricing Model presented by Sharpe and Lintner and end up with a conclusion that the stock

returns decreased with leverage firms at the firm level and that the cash flow from debt financing was determined by the level of Leverage.

There are some other authors who found a slight relationship between the leverage and stock returns contrary to this study. As Johnson (2004) reports that a weak linkage of the market leverage and returns of stock after taking into account book to market ratio (also see Gomes and Schmid, 2010). According to the trade-off theory, firms issue more debt when there are high tax rates to take maximum interest tax shields advantage. Abor, J. (2007) also states that financial performance is influenced by capital structure though not comprehensively.

The three models of regression differ in the context of control variables. The investors duly consider the cash flow effect (CF), firm growth, industry and the corporate rate of earnings (CE) while making their investment decisions in the levered firms (see table 28 & 34) while the managers agree upon the consideration of only nature of industry (ID) and firm growth while making their financing decisions (table 25 & 31). In addition, the fact sheet data provides that corporate earnings (CE) serves as an essential while levering out the firm keeping in view the market returns. Hence, this finding from the secondary data revealing the actual happening in the life of companies is consistent with the opinion of investors in terms of corporate earnings as it is proved to be a vital factor of consideration affecting the relationship of leverage and stock market returns.

As per the managers' opinion, the stepwise regression statistics predict that the industry nature ID and the firm growth FG exhibit a reasonable influence on the stock market returns SMRN as per the managers' opinion. The firm growth makes the most significant and considerable influence among the other control variables. The stepwise regression results present a significant change in R square for LEV in the view of investors and among all the control variables, it's the CE that makes a significant positive influence on SMRN. The kind of regression is used to find out the most influencing predictor variable for the stock market returns.

6.5. Financial leverage, Control variables and the Stock Market Response

In this research, the stock market reaction, stock market returns, cash flow effect and corporate earnings exhibit a strong positive relationship with the values of .597**, .632**, .655** and .645** respectively (see table 22). The control variables are closely relevant for the equity investors to decide about their investments in the leverage firms stocks. Hence, the managers of the companies also need to put an immense importance to these control attributes while deciding about their financing and leverage policies as their ultimate investors seek to decide upon. The managers need to focus highly on their corporate earnings and cash flows.

As far as the regression models are concerned, a common opinion of company managers and equity investors is concluded about the overall stock market response

determined by SMRC and SMRN. The time series secondary data figures generate the unanimous conclusion regarding an existence of significant positive influence of financial leverage on the stock market response. Though some difference of opinion is noticed with the introduction of the control variables in the model of financial leverage verses stock market reaction and returns collectively determining the stock market response. The historical facts and figures discover the influence of industry-ID (food and personal care products and chemical industry), FS, FG and CE proved to be the factors of considerable significant influence on stock market response with LEV. While the CF of the leveraged firms does not make any significant difference in reality for the stock market response whenever the companies made their financing decisions in history. The firm size, firm growth and the chemical and personal care products industries also prove to significant predictors of stock market reaction. The leveraged firms, larger in size and with higher growth may produce higher market to book valuations (table 48).

In the opinion of financing decision makers, the companies' managers, the industry-ID, CE, FS except FG make a significant influence on stock market response while CF indicates an insignificant impact. Such findings lead to approve the fact sheet results what actually happened in the history of companies as per the secondary data conclusions as the financial decisions makers value these factors while levering their firms allowing for the possible stock market response. *The managers' perceptions, psychology and pattern of decision making is confirmed by their responses as well as by the previous real data sheets except for the Firm growth.* On the other hand, a difference of opinion exists in the view

of equity investors who conclude that CF, CE, FS except FG makes significant influence on stock market response whereas, the nature of industry (ID) does not bother their investment decisions. Hence, only the CF effect and industry effect differs in the investors opinion when contrasted with that of managers and FG differs from actual historical happenings in practice.

Hence, the study findings highlights that the equity investors are concerned about the cash flows possessed by the companies as such element hit their perception of risk involved in their investment stocks. The investors perceive that the cash flows of the companies determine the stock market response and ultimately the value for their investment. As per the sample set included in the research, the investors' responses predict that the nature of industry is not a factor of keen importance while making their investment decisions in stock market. The finance managers residing with the companies and the historical patterns of managers decisions making illustrated out of secondary data affirmed that the cash flows are not included in the vital factors while making the leverage decisions that predict a stock market response and value to the investors. Such variable do not bother the financing decisions makers while in real practice, it appears to be an essential determinant of stock market response as per the investors analysis. *The investors seem to reveal a perception that the companies having the sufficient cash flows may reduce the risk of meeting their obligations in time which may in turn decrease the probability of bankruptcy and ultimately provide a safe return and long term value to the investors with a comparatively enhanced surety. The fact sheet results elucidate that the firm growth is a highly significant variable*

that determines the stock market reaction or response which is ignored by the managers and investors for designing their financial and investment decisions respectively.

6.51. Firm growth

The firm growth illustrate a highly significant relationship with the stock market reaction and stock market returns which proposes as FG demonstrate the quite strong relationship with overall stock market response. The financial leverage also explains a highly significant positive relationship with the firm growth which approves the selection of the variable as a control. Jensen (1986) discovers an association between leverage and the company's growth by providing that the agency costs linked with the firm's free cash flow increases for lower growth opportunities and debt may be used as a means to resolve the issue; therefore, debt must be issued in this regard. The overinvestment probability (spending the free cash flow on investments having negative NPVs) by top managers is lessened because companies use future free cash flow to pay out investors. Thus, it forecasts a negative relation of the firm's growth opportunities with its proportionate debt ratio.

Myers (1977) provide a comprehensive description of linkages between leverage and growth. The author asserts that the companies with high risky debt my suffer the problem of under investing in ventures where the Net Present Values (NPVs) is positive including projects which enhance company's value. The entire cost of project is bear by investment decision controlling shareholders; however, return is shared with debt-holders which results in small sharing of the increase in company's value by shareholders. Hence, in order

to be benefited fully from value, companies prefer equity over debt for financing future investment/growth opportunities because enhancement in the growth opportunities available is rightly associated with underinvestment cost related issues. This desired level of risk is arises conflict among the shareholders and bondholders since the firm's shareholders may enhance the risk though it is least preferred to augment the risk by the debt holders. It will be costly for the debt holders to watch the higher growth companies where a possibility for the utilization of firm's assets by the stockholders exists. Highly growing companies possess greater intangibility of assets than companies having lower growth rate; therefore, making it difficult for debt holders to indicate any increase in risk of higher growth companies. It is why growth opportunities are anticipated to possess a negative association with the firm's debt level.

Later, Goyal, Lehn and Racic (2002) developed a relevancy between the firm's leverage and its available growth opportunities as they state that when growth opportunities of companies reduce, they enhance their usage of debt financing. The two main reasons described below are reported for the adverse relationship between growth and debt level in a company's capital structure. Sporleder and Moss (2004) reveal that leverage is negatively associated with growth and non-debt tax shields whereas size and profitability of a firm are positively associated with its leverage. Furthermore, Bevan and Danbolt (2002) consider growth opportunities as highly intangible offering extremely limited liquidation or collateral value; therefore, they cause a low level of debt financing. Various previous research studies established a negative relationship between growth options and book

leverage. Hence, growth was used in the study to be used as a control with leverage towards estimating the stock market response.

The data collected from the financing decisions makers of the companies recommend that the firm growth makes an insignificant impact on the stock market reaction and returns. It *enumerates that the firm growth does not influence the financing decisions of the company managers at all. The managers are least bothered about the firm growth while levering out the companies for the predicted stock market response.* A constant positive effect of growth on a firm's profitability if unrecognized in the literature research. The research works do not anticipate any linkage of the company's growth and its respective profitability (Markman and Gartner, 2002) while others show a negative effect of a firm's growth on its earned profitibility (Reid, 1995). On the contrary, recent studies reveal that growth is not the antecedent of profitability; therefore, fast growth can gravely stall a company's profit generation (Gartner, 1997).

The equity investors develop a consensus upon an existence of highly significant correlation of firm growth with SMRC and SMRN to be selected as control variables. They establish an insignificant impact of the firm growth on the stock market reaction and returns determining the overall stock market response. The observation endorses that the equity investors do not evaluate their investment decisions upon the firm growth predicting the value for their investments in the stock market. Consistent with the current study results, some researches show no connection between companies' growth and their respective profitability (Markman and Gartner, 2002) while others claim to have explore an adverse

effect of growth on profitability (Reid, 1995). Profit generation of a company reduces because of swift growth (Aaker and Day, 1986; Gartner, 1997). A company's profit generation reduces because of excessive growth (Gartner, 1997; Aaker and Day, 1986).

The secondary data proposes that the firm growth possess significantly positive influence on the stock market reaction and is responsible for 12.35% variation in the predicted variable stock market reaction. On the contrary, the firm growth (FG) make an insignificant impact to determine the rate of return (RR). Hence, the firm growth (FG) doesn't make any significant effect on the stock market returns. Finally a conclusion that may be drawn out of such statistical results is that the firm growth is the control that influences the stock market response. Michaelas et al. (1999) supports the study results as the authors state that forthcoming growth is associated with leverage with a positive trend. Whereas other writers concluded mixed evidence (Chittenden et al., 1996 and Jordan et al., 1998). However, other researcher observe that higher growth companies possess i asymmetry of information; thus, they are more overvalued as compared to lower growth companies (Mc-Laughlin et al., 1988; Gombola et al., 1998 and Smith &Watt, 1992). The model asymmetric information (Myer & Mailuf, 1984; Ambarish et al., 1987; Cooney & Kalay, 1993) and the free cash flow theory presented in literature (Jensen, 1986) suggest that *companies having high growth opportunities undergo lesser value loss* as compared to the companies with low growth opportunities available for the period of equity issue announcement.

In addition, the literature supports that a positive relationship between market reaction to the several proxies of growth opportunities and announcement of equity issuance (Dierken, 1991; Pilotte, 1992; Denis, 1994 and Burton et al., 2001). Hirshleifer, and Subrahmanyam (2001) formulate a model in which discovers a stronger value effect for the stocks having a greater section of intangible assets because these companies are hard to value. The findings assert that investors consciously overprice companies having higher bankruptcy risk (Griffin & Lemmon, 2002 and Dichev, 1998). FMAs theory of First Mover Advantages (Lieberman & Montgomery, 1988), experience effects (Stern and Stalk, 1998) and scale economies (Besanko et al., 2004) assert that profitability is obtained via growth either by establishing strong market position or by lowering cost.

Contrary to the statistical results of the study, Chen and Zhang (1998) analyze the variation in the value premium among states by performing a similar investigation of the premium among industries. The researchers assert that the value premium is a result of rational investor pricing relative to variations in company risk. They also show that the value premium is related to the relative growth prospects of the market where a company operates. The authors examine that the value premium must be smaller for value companies operational in *markets having stronger growth prospects as the chance of such companies undergoing financial distress is lessened* if compared to the prospects of value companies operational in markets having restricted growth prospects. *The opinion of authors may be elaborated as the leverage may trigger the firms to be conservative in exploring new opportunities to avoid the enhanced risks and may lead the firms towards bankruptcy.*

There exists some disagreements with the study results as growth does not result in profitability (Markman and Gartner, 2002 and Chathoth and Olsen, 2007). For instance, Rajan and Zingales (1995) determine the presence of negative relationship between book leverage and market to book ratio (commonly used proxy for growth options) in seven states including USA. On the contrary, Famaand French (2002) found out that these procedures understate standard errors. Similarly, Barclay, Morellec and Smith (2003) provided a direct test hypothesis for documenting the robustness of the previous results. They established the empirical relationship between book leverage and growth options. They primarily focus on the market to book ratio as a proxy for growth options. Their conclusions indicate the presence of negative relationship between book leverage and growth options.

However, the study observation prove a positive strong relationship between leverage, firm growth and stock market reaction and returns which is highly significant. But an insignificant impact on stock market response in the opinions of managers as well as that of equity investors. Whereas, the fact sheet results document a significant positive impact of firm growth on the stock market response which is supported by various authors while also report some inconsistencies with others. The difference of opinion may be seen as a result of difference in proxies to measure the firm growth by different authors. For instance, Rajan and Zingales (1995) used market to book ratio to measure the growth opportunities while the sales growth over time is taken as a proxy for growth in this study.

Another important factor that contribute towards the difference of results among several authors may be explained as regional variances.

The investment and financing decision makers and the data figures from Pakistan Stock Exchange may present different results due to difference of climate, perceptions, market dynamics efficiency and the stage of market development. As Pakistan Stock Exchange was considered as the developing market which may yield different conclusions when contrasted with the researches done in developed or emerging markets. The market dynamics are not same in all the markets and at all periods of time when research studies are conducted. In 2017, after the merger of three regional stock exchanges of Islamabad, Lahore and Karachi into Pakistan Stock Exchange (PSX), the market was considered to be upgraded from developing to emerging markets. Hence, the study results may be generalized for Pakistan, neighboring economies with more or less same market dynamics and conditions and for the developing and emerging markets.

6.52. Firm size

A significance association between the financial leverage and the firm size has been noted in this research as per the results stated in chapter 4 & 5. The firm size also illustrate a significant positive relationship with the stock market reaction and returns. The variable highlights the importance of such control variables in the decision making of mangers about the firm financing. Similarly, DTC financial leverage demonstrate a minimal but significant positive association with the firm size (table 49). The relationship of firm size is insignificant and negligible with the predicted variable as defined by the equity investors'

opinions. Myers' (1977) stance that tangible assets, including fixed assets, significantly contribute to supporting a higher debt level in comparison to the intangible assets like growth opportunities. It supports the existence of a relationship between leverage and firm size. It is a general opinion that larger firms are more diversified because they are easily accessible to the capital markets. Such kinds of firms also enjoy the facility of higher credit ratings for issuing their debts while simultaneously paying a low interest rate on the borrowed capital. Ferri and Jones (1979) has observed the connection between size of the firm and leverage.

Size of the firm plays a vital role in determining its capital structure. Therefore, it may prove to be a vital control that may affect the relationship of leverage with the stock market response. Several researchers are of the view that huge firms are less prone to bankruptcy as they are more diversified as compared to smaller firms (Smith and Warner, 1979 and Ang and McConnel, 1982). In accordance with the capital structure of trade-off models, large companies should employ more debt as compared to the smaller ones. Berryman (1982) states that investing in small business is generally riskier due to the presence of a strong negative correlation between the size of the firm and the probability of insolvency. The literature determine that there lies a negative relationship between debt ratios and the size of the firm (Marsh, 1982; Titman and Wessels, 1988). Some other authors' verdict does not support the preceding statements. They distinguished that the large firms are intended to issue low proportion of equity and the growth in firm's size may create a strong adverse influence of profitability on leverage. If the smaller firms get the opportunities,

their proportion of equity may raise by larger issues of equity. Hence, the strength of relationship between the firm profitability and firm leverage may decline as a consequence (Rajan & Zingales, 1995).

Consistent with the research results above, Chui, Lloyd and Kwok (2002) have suggested that the most significant relation is to be observed between capital structure and company size along with its profitability. The smaller companies rely lesser on the equity capital market due to their higher per unit issue cost. In contrast, the research study analyzes a considerable negative relation between firm size and financial leverage (Ezeoha, 2008).

In the regression model, firm size shows a significant change of 16.9% in R square with stock market reaction and demonstrates a 58.9% positive impact on the predicted variable as per the managers' responses (table 24). It is the highest contribution out of all control variables that firm size makes towards SMRC which is highly significant. Whereas, the firm size makes an insignificant impact on the stock market returns. In fact, the firm size influence the stock market response positively. The finding establish that *the firm size is of considerable importance by company managers while making their financial decisions as they demonstrate the quite strong relationship with stock market response.* It means that firm size may prove to be significant determinant of stock market reaction in addition to financial leverage. According to the investors' response, the firm size makes a highly significant impact on the stock market reaction while a small impact on stock market returns which is significant at 10 percent. However, a combined effect of firm size on the stock market response is positive and significant.

The secondary data also depict that FS is the most dominant variable among the study control variables to demonstrate the highest change of 28% in the stock market reaction (table 49). The firm size possess significantly positive influences on the stock market reaction. The firm size (FS) also make an insignificant influence to determine the rate of return (RR) consistent with literature study conducted by Abdullahi, Etudaiye-Muhtar and Lawal (2011) that revealed that the size or industry does not make a significant influence on the firm or returns of the sectors or the firm risk in the Stock Market of Nigeria. The study outcomes lie in accordance with the parallel studies conducted for the highly developed as well as for the emerging economies (Funga & Leug 2000; Fernald & Rogers 2002; Fan, Lu & Wang 2009; Abdullahi 2011). Shafana, Rimziya and Jariya (2013) established that size of the firm is unrelated to the stock returns of the firms operating in financial and non-financial sectors and the selected firm specific factors highly explain the behavior of stock returns of financial companies than non-financial companies. Setiadharma and Machali (2017) observed neither a statistically significant effect of size directly on the value nor indirectly with capital structure as intervening variable. In addition, Mule, Mukras & Nzioka provide in 2015 that the size of the corporation does not make a significant statistical impact on the value under random effects specification.

However, a combined conclusion can be drawn from the observations is that FS makes a significant influence on the stock market response. The study findings are supported by Chandra (1978) who observed that size and growth has a positive impact on market prices. On the other hand, leverage and risk do not show any influence on the share

price. In 1989, Wong highlighted an empirical correlation between firm size and the stock returns taking a sample of listed firms with the Singapore Stock market. The historical observations confirm that greater returns are earned by the small firm stocks firms than that of the large firms and if the variation in earnings to price is controlled by risk adjusted returns, the realized effect of firm size is quite significant. Fama and French (1992) documented a significant relationship between the firm size, book to market ratios and the stock returns in non-financial sector companies. Anderson and Garcia-Feijóo (2002) agree with the study results as Fama and French provide a significant effect of firm size examined on the stock returns and equity valuation. According to Ferideyon (2006), revealed that risk premium returns is dependent on size and book to price ratio while the other variables including national impurity output, inflation, advantage rate level affect stock returns. Okada (2006) also suggests the firm size effect on equity value or amount of sales.

There are some literature findings inconsistent with the study results. For instance, the size of the firm is negatively and significantly related to the stock returns at Karachi Stock Exchange (Farhan and Sharif, 2015). Duy & Phuoc (2016) collected 160 observations of the companies in service sector from 2009 to 2014 and concluded a significantly negative relationship between firm size and stock returns.

6.53. Industry effect

An insignificant relationships is reported between the financial leverage and the industry effect. A previous research elucidate the irrelevance of market for the association

between the debt level of a firm and that of the respective industry (Hatfield, Cheng, Davidson, 1994). Koralun-Bereznicka (2013) examined a highly significant effect of industry and firm size on the leverage. The stock market returns show a moderate degree of association with the nature of industry with 40.9% but highly significant. In the view point of company managers, the nature of industry presents a significant influence on the stock market reaction. The ID also shows a highly significant influence out of other variables which is equal to 38.5% on the stock market returns (table 27). *It means the nature of industry considerable importance by company managers while making their financial decisions as they demonstrate the quite strong relationship with overall stock market response.*

According to the responses collected from equity investors, a moderate highly significant relationship exists between the financial leverage and the industry dummy with a value of .435** (see table 22). Similarly, the industry dummy present a quite reasonable degree of significant positive relationship with stock market returns with the correlation coefficients of .279. Whereas, the industry dummy shows insignificant beta value and insignificant impact of ID on stock market reaction and returns.

The fact sheet results state that the chemical industry (represented by dummy D_{15}) and food and personal care products industrial units (represented by dummy D_{21}) possess significantly positive influences on the stock market reaction (table 49). In other industries from non-financial sector do not exhibit any significant influence on the predicted variable.

On the other hand, nature of industry (ID) make an insignificant influence to determine the rate of return (RR) used as a proxy for stock market returns (table 50).

The historical data patterns report a partial influence of nature of industry on the stock market response as only 2 out of 22 industries in the sample present an influence on the stock market response (table 49). A difference of opinion exists in case of industry effect on the stock market response. The managers provide a significant positive impact of nature of industry on the stock market response while the investors do not consider it important while making their investment decisions to predict a possible stock market response. The findings illustrate that the managers making financing decisions for the companies may revise their perceptions about the industry effect on the stock market response. The investors do not bother at all while the historical analysis also suggest an insignificant influence of industry nature except for the chemical and personal care products. The study conclusions are also backed by Beck (1986) who found that there was no overall relationship observed between concentration of industry and profitability. However, consistent with the managers' responses and partially by fact sheet data, Masulis' (1983) enumerates that the best suitable or the optimal debt level is found by the companies in which the varying levels of debt from the industry averages or norms may enhance or decrease the firm' value. Masulis (1983) further stresses that when the companies issuing debt move toward the industry average from below, the overall market reacts positively. Raza, Farooq and Khan (2011) found a positive effect of industry on the firms' profitability.

6.54. Firm cash flows

The financial leverage confirms a highly significant considerable positive relationship with the firms' cash flows. Some theories and literature also suggest that Cash flows are related to the firm leverage which justifies the selection of cashflow as a control variable to estimate the stock market response. The returns may reduce proportional to the decreased risk of firm if the mangers opt to finance the low profitable projects, ignoring the risk of capital market. Meyers' (1984) theory of pecking order states that the companies either enhance or decrease their debt ratio in case they suffer from a negative free cashflow or positive free cashflow respectively during the current period. The tax benefit related to debt and control of free cashflow issues persuade companies to use more debt financing (Myers and Majluf, 1984). Hence, it is inferred that leverage is indirectly contributing towards increasing the firm value. On the other hand, Jensen (1986) states low financial leverage is one of the indicators of free cash flows. He predicts that the firms which overinvest usually have higher levels of cash flows. Gibbs (1993) is of the view that the investment opportunities and initial financing leverage are not related to each other; therefore, the free cash flows divert themselves to the smaller financial leverage.

When market value of investment is positive, the debt level is enhanced and when it is negative, debt level decreases (Connie, 2003). Moreover, the author concludes that in high growth companies, a positive relationship exists between leverage and MVI (Market Value of Investment) and in low growth companies, a negative relation exists. Byoun

(2006) estimates that large debt-free companies are more profitable as they possess more growth options and have more cash in them.

According to the responses collected from the company managers, the firm's cash flows show an insignificant influence on stock market reaction. It means that the company financial decision makers do not care about the most about the Cash flows of the firms while formulating their financing decisions *as CF demonstrate the quite strong relationship with overall stock market response.* However, their responses demonstrate an insignificant effect of CF on the SMRN. Thus, an inference can be drawn about the CF effect on stock market response from the overall results that cash flows make an insignificant influence on the stock market response.

The equity investors expose that stock market reaction, stock market returns, cash flow effect exhibit a strong positive association. The coefficient of correlation between stock market reaction and cash flow effect calculate 62.2% significant positive relationship. It is the highest degree of relationship among the control variables followed by the corporate earnings exhibiting a positive relationship of 60.6% with stock market reaction. The cashflow effect illustrate a highly significant positive influence on the stock market reaction and returns with a beta values of .387 and .564 respectively approving a significant positive influence of cash flows on the stock market response (table 22).

The secondary data analysis predict that CF express an insignificant impact with market to book ratio used a proxy for measuring the stock market reaction (table 49). On

the other hand, the firm cash flow (CF) exhibit a highly significant impact on the rate of return (RR) when regressed in the model of debt to equity ration. As the debt to equity ratio evaluates n insignificant impact of leverage on stock market returns, hence, the relevant control variables effect become insignificant to consider. Whereas, the cash flows (CF) doesn't make any significant effect on the stock market returns when used as a control variables with debt to capitalization ratio. But as a rule of thumb, the most influencing impact is taken for decision making which reveals an insignificant impact of cash flows when used as control with leverage to estimate the stock market response. Hence, by summarizing the above discussed data results, an insignificant effect of Cash flows on the stock market response is concluded.

The investment decision makers approve the significant influence of Cash flows on the stock market response while the fact sheet results do not agree with the real market setters' opinion. While the financial decision makers and previous data approves that the Cash flows are not making a significant difference to calculate the stock market response. While the investors consider the effect in their decision making process as they perceive that the companies' cash flows may be an important attribute to determine the stock market response. The secondary data also illustrate the managers' actions in the history. Hence, the companies' managers need to put some importance to improve the companies' Cash flows as their investors are keen and concerned about such variable while making their investment decisions. As in the opinion of investors CF is indispensable to conclude the stock market response. The study results of Chu (1997) from an Asian Taiwan Stock

Market also support and state that the firm's cash flows generated from the operational activities and financing are correlated positively with stock returns. Contrary to the cash flow theory which assumes that increased free cash flows leads to management misuse and decreased financial performance and stock returns, Chepkwony (2014) established that free cash flows show a significant positive correlation with stock returns at the NSE. Their findings also agree with the current study as the author states that increases in free cash flows lead to increased financial performance and subsequently stock prices. In addition, Mundia (2016) confirmed a strong relationship between stock prices and free cash flows.

6.55. Corporate Earnings

The corporate earnings document a significant impact of the variable on stock market reaction while an insignificant influence on the returns of stock market. The findings suggest that corporate earnings are the control variables of considerable importance by company managers while making their financial decisions as they demonstrate the quite strong relationship with overall stock market response.

In the view of equity investors, the stock market reaction, stock market returns and corporate earnings exhibit a strong positive relationship with the values of $.597^{**}$, $.632^{**}$, $.655^{**}$ and $.645^{**}$ respectively. The corporate earnings illustrate the highest coefficient of correlation with SMRN i-e demonstrating the 61.6% positive relationship with the predicted variable significant at 0.01 level. In 1967, Hall and Weiss also explained a significance of relationship between enhanced equity to debt ratio and income generation

of the firm i-e, profitability. They continue their observation with the argument that the profitability can be raised by the way of decreased risk. Later on, Rajan & Zingales (1995) continue their research as Jensen (1989) argues to make an assumption out of above that an adequate amount of profitability is necessary for a company service its obligations. Gritta (1979) illustrated that leverage has the negative effect in the airline industry having highly volatile and lower net operating income. Weill (2003) states an indication of a direct relationship of the financial leverage with the business performance. Generally, profitable companies possess lower financial leverage levels (Nissim, Penman, 2003). The historical studies also evidence an existence of such an association among profitability and the firm's leverage which is negative and highly significant (Ezeoha, 2008).

As per the investors' opinions, the beta value for corporate earnings highlights a 33.6% highly significant positive influence on stock market reaction (table 27). Hence, corporate earnings explore a highly significant influence on the stock market response.

The times series data results find a significant but negligible impact with market to book ratio which infers corporate earnings bring a negligible but significant change in stock market reaction. On the other hand, the corporate earnings (CE) exhibit a highly significant impact on the rate of return (RR). The earning per share (EPS) proves to be highly significant predictors of the stock market returns. Therefore, the corporate earnings unanimously provide an agreement among the managers, investors and previous fact sheet analysis as all of them consider them an important variable to predict the stock market returns.

The literature also confirm the study results as Haugen and Senbet (1998) draw an inference to increase the profit margin after paying taxes as a result of low rate of interest; thus, EPS and the dividend payout ratio increases as an outcome of higher earnings increasing the company's performance. If the firms possess diverse process of earnings, the firm's business risk related to the debt usage may not be effectively measured by simple methods of variable earnings. That provides an inference that the profit after tax may be raised by lowering the rates of interest and finally the increased income may lead towards increased level of EPS and dividend payout concluding the enhanced performance of companies. Since, the marginal profits resulting from lower rates of interest and tax shield are accumulated for the growth of a company, the value may be enhanced in long term which turns into the goal achievement of maximizing the wealth of real owners who invest for returns.

Furthermore, consistent with study results, Bitok et al. (2011) also enumerate that company' leverage is positively related to the asset tangibility, profit and macro-economy whereas it is negatively related to firm-level profitability and non-tax debt shield. Almumani (2014) found that Earnings per Share and Book Value show a significantly positive relationship with the market price while size is negatively associated with the price of a shares. Mundia (2016) established a strong relationship between stock prices and EPS.

In contrast, Foster (1973) reveal that the pre audited estimates of earning per share are used by the individual investors and the aggregate market as an informational content.

When such estimates go public, the stock prices rapidly adjust in a way that the investors may not be able to earn abnormal returns based on these estimates.

6.6. Practical Implication and Recommendations

The study was conducted to observe the significance and impact of leverage on the Stock Market Response (Reaction & Returns) in industrial sector of Pakistan including the sample of companies non-financial sector listed at Pakistan Stock Exchange. There are several studies conducted on the historical data from fact sheets regarding the relationship & impact of financial leverage on the book and market value (see e.g. Shah & Khan, 2007; Frank & Goyal, 2009; Muradoglu and Sivapradad, 2008; Ozdagli, 2009; Adami, Gough, Muradoglu, Sivaparasad, 2010; Penlin, 2009; Hasanzadeh, Torabynia, Esgandari and Kordbacheh, 2013; and Mumtaz, Rauf, Ahmed & Noreen, 2013).

Though the investors' perception towards investment in stocks, the impact of the stock market response is not clear and has not been measured adequately in Pakistan and other emerging markets. This study attempts to fill such gap of empirical testing with the stated set of predictor and predicted variables and intends to examine the investors' response towards the investment in companies if they employ leverage at the stock market of Pakistan. It is helpful not only to identify the stock market reaction based on investors' psychological considerations in Pakistani market but the results of the study may be generalized upon the regional economies.

Some practical applications based on the results of the study are embodied along with the analysis and discussion above. As the study is comparative in nature, therefore, it compares and contrast the results obtained from the financing and investment decision makers with that of secondary data. It provides a robust testing and empirical testing of human behavior or perceptions in financing and investment decision making that ultimately formulate a certain stock market response. The patterns of stock movements and value realized out of the investments combine to determine the long term wealth of the shareholders. The research also anticipates to investigate the effect of financial leverage across various industries to help the companies in financing decisions so that they may opt for the optimal level of debt in their capital structure considering the industry landscape.

The study is beneficial for the corporate sector to consider the impact of debt financing on the stock market response. On the other hand, the study is also beneficial from the investors' perceptive. The research evaluates the investors' reaction and returns from the stock market and their attitude towards making investment in leveraged firms' stock. This study provides a guideline for investors to decide about their investments in the stocks of leveraged companies and corporate sector may decide about the debt to equity ratio in financing decisions. They may build up the future expectations for rate of return based on the current value of leveraged firms.

This study considers market oriented indicators to determine the Stock Market Reaction of the investors & their attitude towards investment in the stock of leveraged companies keeping in view risk and Returns. The investors may construct diversified

portfolios based on the value of leveraged firm, risk and their expected rate of return. This not only serves as a guideline for investors for current and future investments but also for firms' financing decisions. Furthermore, the firms may use this research as guideline to forecast their future for raising finance based on their investor's confidence. The research suggests the basis for decision making not only for companies but for the potential investors who have got concerns or dealings with the company not only in Pakistan but other developing and emerging economies where more or less same type of market dynamics prevail.

6.7.Guideline for Finance Managers about firm's Capital Structure decisions

Based on the study results, following guideline has been proposed to the company managers involved in financial decisions making for the company in Pakistan and similar type of other emerging economies;

6.71. Consideration of the market response to decide about capital structure

The ultimate goal of the company is stated as maximization of shareholders' wealth in the traditional finance. The results of the current study guide the corporate managers who make the financial decisions to consider the market response in the view of investors. Apart from the fact sheet data and historical figures, it is important to use the investors' perception as a base to decide about firms' financing structure and the proportion of leverage in it. What do the real owners or investors think in reality and how do they behave when they invest funds in leveraged companies are the key points that company finance

managers need to concentrate at the time of financing as the leveraged stocks drive the market response positively according to the study.

Hence, looking at capital structure, managers must consider the following factors:

- **The stock market reaction as a result of increased leverage which proves to be positive in the study. The market to book value increases with an increase in leverage.**
- **A positive drift in the stock market returns for the greater leverage. The earning yield increases in response to an increase in leverage.**

It may be beneficial to predict the future market reaction, returns and overall response towards the company's leverage and its value.

6.72. Use the Leverage to increase the company market value

The study may educate the companies about the influence of leverage to be used for multiplying the firm value for its investors. The study reports an evidence for the developing countries like Pakistan that the leverage is influencing positively the stock market response with the effect of certain control variables and ultimately affecting the long term value for shareholders. The study infers that the companies can create value for their investors by using the optimal level of debt in capital structure as it influences the market response.

6.73. Use the Leverage to seek future investments

According to the findings of the study, the use of leverage creates an enhanced market response measured by the market to book value and earning yield. Therefore, the managers may put an effort on deciding about the capital structure to create positive market response which would be helpful to predict the value of potential investments to be received in future via value creation today through an optimal mix of capital structure.

6.74. Lever the company when cash flows are adequate

The investors view present that cash flows of the company is one of the important factors to be considered by them while making an investment in a levered company. It infers that investors deem the cash flows, a safety cushion for the increased risk by leverage. Hence, the cash flows proves to be a significant factor to be considered by the finance managers of the company while making leverage decisions. A stream line that this study provides is that managers should lever the company only when they possess adequate margin of cash flows to win the investors' confidence and to seek the potential investments.

6.75. Consider the firm growth in financial decision making

At the same time, it is also helpful for the investors' decisions about the stock market reaction towards investment in leveraged companies in Pakistan as the leverage proves to be the determinant of stock market response with certain control variables. Such findings lead to compare the fact sheet results what actually happened in the history of companies as per the secondary data conclusions. *The fact sheet results elucidate that the firm growth*

is a highly significant variable that determines the stock market reaction or response which is ignored by the managers and investors for designing their financial and investment decisions respectively.

6.8. Guideline for equity investors to make investment Decisions

The study results provide the following guideline to the equity investors who make investment decisions in leveraged companies in the stock market of Pakistan and other emerging economies with identical circumstances so that their value can be maximized.

6.81. Consider the firm growth as a determinant of long term returns

The study elucidates that *the investors seem to reveal a perception that the companies having the sufficient cash flows may reduce the risk of meeting their obligations in time which may in turn decrease the probability of bankruptcy and ultimately provide a safe return and long term value to the investors with a comparatively enhanced surety.* But in reality, it may not happen as per the managers' opinions and the fact sheet results. The companies focus on the maximization of shareholders' value while choosing an optimal capital mix instead of accumulating cash flows. As the study results predict that stock market returns are predicted by the leverage. Hence, the investors need to consider the long term returns and firm growth along with industry, earnings and size effect rather than cash flows. The investors also need to consider the firm growth while making an investment in leveraged firms.

6.82. Consider the market reaction while investing in levered stocks

The study results leads the investors to consider the possible movement of the market which proved to be positive market reaction as the leverage increases. Hence, if they invest in the levered stocks, they may be able to realize a positive market to book value.

6.83. Consider the earning yield and the market returns for investment in levered stocks

The research streamlines another point of decision making that earning yield ration is important to consider when they invest with leveraged companies stocks. The earning yield for their investments increases with the increased investments with leverage companies stock in the stock market of Pakistan. To maximize the earning yield ratio, investors of the similar or neighboring economies may also replicate the study results in their markets.

6.84. Consider the nature of industry, firm size and growth to attain a positive stock market response towards investment in levered stocks

As per the study results, the investors put attention to evaluate the cash flows and earning of the companies when they decide about their investments in leveraged companies. Furthermore, the study elaborates that to maximize the investment value with a positive

stock market response, the nature of industry, firm size and firm growth are also the important milestones o be considered for investment in levered stocks.

In short, the study may helpful for the investors to decide about the profitable portfolios while selecting the stocks of leveraged and unleveraged or low levered firms. As the element of leverage creates a positive stock market response in terms of market reaction and returns, the future market speculations may be done effectively on the basis of empirical results in Pakistan Stock Market. The responses collected from the equity investors reveal that they are keen to consider the market response and seem to be careful about their investment decisions in leveraged companies. Hence, the potential and new investors who want to invest in stocks need to be informed about the market response for leverage firms and the study serves the objective by providing an empirical evidence. The investors of similar emerging economies may also set an investment direction for them based on the study results.

The literature provide certain evidences about the control effect of firm size, firm growth and corporate earnings on firm value and performance, still a gap exists to find out the impact of such variables with leverage on the stock market response. The control impact of cash flows and industry is also checked with leverage on stock market response in the study model which is a new addition to the literature. These variables are rarely dumped with the stock market reaction and response. Although very limited literature exists upon their relationship with stock market return yet not collectively on the stock market response. The area of behavioral finance research that covers the perception of

investment and financing decision makers in this study is yet new in Pakistan and emerging. Currently, a gap exists between Pakistani financial markets and that of the developed economies of the world. Bridging this geographical gap is also a contribution to current body of knowledge available on behavioral finance.

6.9. Avenues for Further Studies

The study limitations discussed earlier in first section reveal the future research directions. The current research may be extended towards the foreign investors investing in financial instruments other than equity. The study may also be extended to the emerging market other than Pakistan Stock Exchange (PSX) and other foreign markets. Following are some other suggested areas for further research;

- How the share price is effected by employing the different levels of leverage? A comparison of fact sheet with the investors responses
- How derivatives can minimize the company's risk of leverage for improved and positive market reaction?
- Determinants of leverage in local industries linked with an investors' behavior
- The impact of leverage or financing decisions can be measured on the corporate governance decisions to maximize the firm value and the related stock market response can be predicted.
- In what manner, the firm's stock value is affected by employing the various degrees of leverage? A comparison of fact sheet with the investors responses

- Impact of operating leverage on financial performance and Stock Market Response and vice versa
- Determinants of stock market response in local industries

6.10. Conclusion

The above discussion shows that MM theory, pecking order theory, the free cash flow theory, the trade-off theory and the static trade off theory provide a theoretical framework for the capital structure decisions and the resultant performance measures. The fact or data sheet results are also tested by the investors and managers perceptions which touch a part of prospect theory of behavioral finance and efficiency theory regarding market information available to investors. A useful framework is offered to understand financing and resulting firm value. The research studies regarding financial leverage and company value provide a broad set of both consistent and contradictory conclusions. Both conservatism and risk-taking tendencies are examined in several research studies conducted. Valuation and financial leverage are the two main factors which are discussed in various research studies and in literature. However, there are gaps in the knowledge of how leverage influences the value by market measure with the given set of variables. This aspect is still not being analyzed by the research scholars for earlier empirical studies.

The results of the study conclude that the investors agree that the leverage determines the reaction of the stock market and consider the role of a firm's cash flows important for the levered companies. In the view of investors, the companies who possess an adequate amount of cash flows and earnings may capture the maximum investors'

attention for investment. On the other hand, the nature of industry also plays an important role to trigger the investors' decisions for making the investment in levered companies stock. The equity investors least consider the firm size and growth while deciding for their investments. The demographics of the equity investors including their gender and experience do not come into play when they make their investment decisions. According to the statistical results of the study, it seems that these factors do not make any unconscious influence on the psychology of the investors while deciding about investments. May be these are the market dynamics, trends, behavior and movements which influence the investors but their personal attributes make no effect on their psychology while making investment decisions. While other demographic characteristics like age, qualification and their professionalism makes a difference in their thinking and patterns of decision making.

The study reveals that the behavior of local investors towards investment in risky companies and generates a positive stock market response opposing the judgment of the ***Prospect theory*** that generally the investors are risk-averse. While Adami, Gough, Muradoglu, Sivaparasad (2010) supports the theory and argues a decrease in market returns with leverage. On the other hand, it seems that *the market efficiency theory* doesn't hold strong in the developing country's market for the rational decision making of investors as the level of information with each investor differs. *The uneven dissemination of market information with the investors while investing in levered companies' stocks may serve as a basic reason for the market deviation from theoretical norms.* The lack of relationship between financial leverage and value of firm sated in ***MM theory*** confirmed by

Hasanzadeh, Torabynia, Esgandari and Kordbacheh (2013) proves to be inconsistent with the current study observations as per the investors' perceptions in the context of the stock market in Pakistan. **The stated reason seems to be the weaker efficiency of the developing country's local market.** *On contrary*, the research findings are aligned with Ozdagli (2009) who reveals that the value of the company varies with the change in leverage in the same direction. The study determines a positive impact of leverage on the stock market reaction and the stock market returns which collectively translate into the overall stock market response. Previously, the literature measures the leverage impact on value by using book measures of Tobin's Q and ROE and so on. This research not only takes into account the book measures but also the market oriented performance of the firms to measure the value and suggests an increase in value finally in the market which is a bit contradictory with the **tradeoff theory**. The tradeoff theory assumes that *suboptimal level of debt in the company increases cost of debt than its benefit. The situation may create adverse impact on shareholders' value.* Though the costs of company are increased by using the suboptimal level of debt, yet at the market response to measure the value of the firm is still positive.

Therefore, the study overcomes the empirical and theoretical literature gap in Pakistan while taking the investors' response towards the financing mix of companies as it highlights their psychology, perceptions, behavior and factors of consideration for investment in leveraged companies. The managers of the companies need to consider the factors identified by the equity investors while deciding about their capital structures so

that their financing decisions may turn out attractive for maximizing the market value and response. The potential investors may be attracted towards the investment in leveraged companies with optimal financing mix made by their managers by considering the factors of importance for their investors.

A summary of study findings may be derived as the financial leverage determines the stock market reaction and returns which merge to form a complete stock market response which is not only confirmed by the data sheet analysis but also by the financing and investment decisions makers. But some disagreements exist with the introduction of control variables into the model. For instance, the equity investors consider the cash flow as an important determinant of stock market response while the finance managers do not and the fact sheet proved their historical decisions. Similarly, the investors do not consider the nature of industry but the fact sheet evidence the partial effect of industry. The research provides an empirical evidence and a bottom line for decision making and is helpful to set a guide line for both the parties to make better financing and investment decisions keeping in view the stock market response in order to get the maximum returns.

The results of the study conclude that the investors agree that the leverage determines the reaction of the stock market and consider the role of a firm's cash flows important for the levered companies. In the view of investors, the companies who possess an adequate amount of cash flows and earnings may capture the maximum investors' attention for investment. On the other hand, the nature of industry also plays an important role to trigger the investors' decisions for making the investment in levered companies

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APPENDIX A

National University of Modern Languages and Sciences, Islamabad

A RESEARCH SURVEY CONDUCTED TO STUDY THE COMPANIES BEHAVIOR TOWARDS FINANCING DECISIONS WHILE MAXIMIZING THE LONG TERM VALUE OF FIRM

Dear respondent;

I am Shehla Akhtar, Assistant Professor at NUML, Islamabad and also pursuing PhD program In Finance. This questionnaire is a part of an effort towards my Doctorate Program.

The Research Objective:

The general information provided by your company's management will enable to conduct a research to study the Company's behavior towards financing decisions keeping in view the value provided to the investors in long term.

The research will enable the companies to forecast the stock market response while raising new investments through the better mode of financing. It will not only help your company to decide about the optimal level if risk they can employ but the study will be fruitful for setting a guideline for investors for their investments in the risky firms' stocks. The study will also examine the long term value that such stocks are providing to their investors.

Your kind response towards making this research effort successful will be highly appreciated.

Note:

Once the research is accomplished, you may get the published copy of this research for your decisions if required at shehlaakhter@numl.edu.pk. There is no confidential information required. Kindly cooperate while filling the form as the research is aimed at making better investment and financing decisions for your companies.

1. **Gender:** (1) ___ Male (2) ___ Female
2. **Age:** (1) __ below 20 (2)__ 21-24 (3) __ 25-29 (4) __ 30-34 (5) __ 35 & above
3. **Education:** (1) ___ below intermediate level (2)____ graduation (3)___ Masters

   (4) ___ M. Phil/MS (5) ___ PhD (6) ___ Other

Kindly fill out questionnaire by selecting the suitable option in the following;

Attributes	Strongly Disagree	Disagree	Neutral	agree	Strongly agree
Leverage ("debt" refers to "loan/borrowing")					
4. We evaluate the risk of the firm while raising finance for the company	**1**	**2**	**3**	**4**	**5**
5. We consider the chances of firm for going bankrupt while deciding about mode of financing for the company	**1**	**2**	**3**	**4**	**5**
6. I consider the level of borrowings made by the company as a percentage of its equity/capital.	**1**	**2**	**3**	**4**	**5**
7. We evaluate the level of loan to be borrowed as percentage of company's total assets	**1**	**2**	**3**	**4**	**5**
8. We evaluate the loan capacity/level of loans already employed by the company while taking new loan?	**1**	**2**	**3**	**4**	**5**
Stock Market Reaction					
9. We prefer debt/loan financing as long as it rewards the required rate of return of our investors	**1**	**2**	**3**	**4**	**5**
10. We prefer debt financing as far as our market to book value is increasing	**1**	**2**	**3**	**4**	**5**
11. We think that debt financing is useful as far as market price of shares is increasing.	**1**	**2**	**3**	**4**	**5**
12. We think that companies maximize market value for investors.	**1**	**2**	**3**	**4**	**5**
Stock Market Returns					
13. We believe that the stocks of companies can generate handsome yields for investors in stock market.	**1**	**2**	**3**	**4**	**5**
14. We suppose that the companies have potential to meet investors' expected rate of return.	**1**	**2**	**3**	**4**	**5**
15. We believe that the companies with higher earnings can better fulfil investors' expectations for rate of return.	**1**	**2**	**3**	**4**	**5**
16. We evaluate the future growth in stocks prices while raising finance through debt	**1**	**2**	**3**	**4**	**5**
Cash flows					
17. We employ debt financing as long as we have reasonable cash flows	**1**	**2**	**3**	**4**	**5**
18. We think that debt financing is beneficial if cash flows are growing	**1**	**2**	**3**	**4**	**5**
19. We believe that companies should prefer debt financing with reasonable cash flows	**1**	**2**	**3**	**4**	**5**
20. The companies with low cash flows are more risky and vulnerable.	**1**	**2**	**3**	**4**	**5**

Attributes	Strongly Disagree	Disagree	Neutral	agree	Strongly agree
Industry					
21. We evaluate the nature of industry while increasing leverage/debt.	**1**	**2**	**3**	**4**	**5**
22. If the industry's average debt to equity ratio is high, we also employ debt	**1**	**2**	**3**	**4**	**5**
23. We don't choose for debt financing if frequent changes or movements are observed in industry.	**1**	**2**	**3**	**4**	**5**
24. We don't opt for debt financing if average price fluctuates in the industry.	**1**	**2**	**3**	**4**	**5**
25. We don't prefer the debt financing decision in the industry, if chances of bankruptcy are high	**1**	**2**	**3**	**4**	**5**
Corporate earnings					
26. We prefer debt financing as long as we have higher expected earnings	**1**	**2**	**3**	**4**	**5**
27. We take more debt as long as the company is showing growth in annual earnings	**1**	**2**	**3**	**4**	**5**
28. The companies become more risky if earning gets low.	**1**	**2**	**3**	**4**	**5**
29. Companies with higher earnings can take benefit from debt financing	**1**	**2**	**3**	**4**	**5**
Firm Size					
30. We prefer to take debt by considering the company's size.	**1**	**2**	**3**	**4**	**5**
31. The companies with high market capitalization are able to raise more debt	**1**	**2**	**3**	**4**	**5**
32. Large size companies show greater stability even with higher debts.	**1**	**2**	**3**	**4**	**5**
33. The companies with small size have more chances to become bankrupt.	**1**	**2**	**3**	**4**	**5**
Growth					
34. We prefer debt financing when there is high growth in the company	**1**	**2**	**3**	**4**	**5**
35. We believe to make debt financing with high productivity and output/sales	**1**	**2**	**3**	**4**	**5**
36. We believe that high growth companies have less chances of loss for the investors' investment.	**1**	**2**	**3**	**4**	**5**
37. Leveraged companies with high growth provide the investors, their required rate of return	**1**	**2**	**3**	**4**	**5**

__We are really *Thankful* for your valuable cooperation and for sharing your Precious time __

Your Email (optional) ----------

APPENDIX B

National University of Modern Languages and Sciences, Islamabad

A RESEARCH SURVEY CONDUCTED TO STUDY THE INVESTOR BEHAVIOR TOWARDS INVESTMENT IN RISKY FIRMS' STOCK

The Research Objective:

This questionnaire is a part of an effort towards my Doctorate Program. The information provided by you will enable to conduct a research to study the investor's behavior towards investment in risky firms' stocks in the stock market. It will not only help the companies to decide about the optimal level if risk they can employ but the study will be fruitful for setting a guideline for investors for their investments in the risky firms' stocks. The study will also examine the long term value that such stocks are providing to their investors.

Your kind response towards making this research effort successful will be highly appreciated.

Demographics:

1. **Gender:** (1) ___ Male (2) ___ Female
2. **Age:** (1) __ below 20 (2)__ 21-24 (3) __ 25-29 (4) __ 30-34 (5) __ 35 & above
3. **Education:** (1) ___ below intermediate level (2)____ graduation (3)___ Masters

   (4) ___ M. Phil/MS (5) ___ PhD (6) ___ Other

4. **Profession:** (1) ___ Business professional/owner (2)____ Employee (3)___ Trader

   (4) ___ Institutional investor (5) ___ Other

5. **I generally invest in the Companies;**
   (1) _____
   (2) _____

6. **From how many years I am trading/ investing in stock market?**

   (1) ___ less than 1year (2)___ 1-3years (3)____3-5years (4) ____above 5years

Kindly fill out questionnaire by selecting the suitable option in the following;

Attributes	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Leverage (LEV)					
7. I evaluate the risk of the firm while investing in a company's stock	**1**	**2**	**3**	**4**	**5**
8. I consider the level of borrowings made by the company	**1**	**2**	**3**	**4**	**5**
9. I consider the chances of firm for going bankrupt while investing in a company	**1**	**2**	**3**	**4**	**5**
10. I evaluate whether the level of company's borrowing is low or high to the total assets of the company.	**1**	**2**	**3**	**4**	**5**
11. I put weightage to the borrowing to equity ratio of the company while investing in its stock	**1**	**2**	**3**	**4**	**5**
Stock Market Reaction (SMRC)					
12. I enjoy putting money in a firm's stock as long as it rewards the required rate of return of my investments	**1**	**2**	**3**	**4**	**5**
13. I like to invest in shares of firms as long as their market to book value is increasing	**1**	**2**	**3**	**4**	**5**
14. I consider the investment in a company's stock if the market price of the shares is increasing	**1**	**2**	**3**	**4**	**5**
15. I think that companies financed by borrowings minimize market to book value for investors.	**1**	**2**	**3**	**4**	**5**
Stock Market Returns (SMRN)					
16. I think that the stocks of companies can generate more yields for investors.	**1**	**2**	**3**	**4**	**5**
17. I think that the stocks of companies can give investors better rate of return	**1**	**2**	**3**	**4**	**5**
18. I believe that the companies with higher earnings can better fulfil investors' expectations for the rate of return	**1**	**2**	**3**	**4**	**5**
19. I prefer to invest in shares of a company when my earning yield in is higher	**1**	**2**	**3**	**4**	**5**
20. I consider the future growth in stocks prices when I make an investment.	**1**	**2**	**3**	**4**	**5**
Free cash flows (CF)					
21. I prefer to invest in the company's stock as long as they have reasonable cash flows	**1**	**2**	**3**	**4**	**5**
22. I think that my investment is beneficial if cash flows of the firm are growing	**1**	**2**	**3**	**4**	**5**
23. We believe that companies should maintain reasonable positive cash flows to meet its obligations	**1**	**2**	**3**	**4**	**5**
24. The companies with low cash flows are more vulnerable	**1**	**2**	**3**	**4**	**5**

Attributes	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Industry effect (ID)					
25. I evaluate the nature of industry while investing in stocks	**1**	**2**	**3**	**4**	**5**
26. I invest in the low risk industries (i-e, low borrowing to equity proportion)	**1**	**2**	**3**	**4**	**5**
27. I consider the industry price movements when I invest.	**1**	**2**	**3**	**4**	**5**
28. I don't like to invest in the industry where chances of bankruptcy are high	**1**	**2**	**3**	**4**	**5**
29. I don't prefer to invest in the industry where risk of loss is high.	**1**	**2**	**3**	**4**	**5**
Corporate earnings (CE)					
30. I invest in the companies when they give higher likely earnings	**1**	**2**	**3**	**4**	**5**
31. I feel good to invest in the companies when earnings are growing yearly.	**1**	**2**	**3**	**4**	**5**
32. I believe that the companies with higher earnings can give me more profits.	**1**	**2**	**3**	**4**	**5**
33. I believe that chances of loss in investments are more when the companies are earning less.	**1**	**2**	**3**	**4**	**5**
Firm Size (FS)					
34. I prefer to invest in companies having larger size.	**1**	**2**	**3**	**4**	**5**
35. I believe to invest in shares of companies that possess large capital.	**1**	**2**	**3**	**4**	**5**
36. The small size companies have more chances to become bankrupt.	**1**	**2**	**3**	**4**	**5**
37. I trust the stability of large size companies for investment.	**1**	**2**	**3**	**4**	**5**
Growth (FG)					
38. I prefer to invest in growing companies.	**1**	**2**	**3**	**4**	**5**
39. I like to invest in companies with high productivity and sales.	**1**	**2**	**3**	**4**	**5**
40. Growing companies have low risk of bankruptcy.	**1**	**2**	**3**	**4**	**5**
41. I think that investment in high growth companies have less chances of loss.	**1**	**2**	**3**	**4**	**5**

We are really *Thankful* for your valuable cooperation and for sharing your Precious time

Your Email (optional) ----------

APPENDIX C

(Original hard copies of the list of the100 aggressive trading non-financial sector companies (received from SECP) & considered as sample for data collection from managers is attached with hard copy of the report)