DETERMINANTS OF CAPITAL STRUCTURE AND ITS IMPACT ON CORPORATE GOVERNANCE: AN EMERGING MARKET EMPIRICAL STUDY

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Abstract

This research endeavored to explore two schemes of literature pertains to capital structure i.e. antecedents and consequences of debt borrowing on firm specific and corporate governance factors. This research explores the determinants of capital structure to ascertain whether the financing decisions are optimal or not. Non-financial sector firms accumulated 70% of total firms listed on Pakistan Stock Exchange (PSX). To conclude proposed research, unbalance panel data for 160 non-financial firms listed at PSX from 2007 to 2011 is selected. Results revealed that Return on assets contributes 25% influence on financing decisions regarding debt. Similarly Debt borrowings affect negatively in overall profits. However, its intensity differs within different levels of its determinants. Corporate Governance CG index is negatively associated with debt ratio. Return on assets in terms of size of firm is impacted 29%. Institutional Ownership and debt financing has found a negative association with one and each other. Ownership concentration and debt ratio have strong positive binding between them. Significance of Board Size holds only 2% in debt financing decision making whereas CEO duality holds 68% significance in debt financing decision making. Audit Committee independence and debt ratio are also negatively related. Non-executive directors are found with no influence on capital structure decision making. Board Independence is positively related with leverage and found with no particular implementation of debt financing decisions makings. The outcome of this study can be used to provide managerial information whether their financing decisions are optimal or not and how they should enhance the scope of their financing decisions.

Keywords: Debt Ratio, Current Ratio, Return on Assets, Sale Growth, Tangibility, Institutional Ownership, Ownership Concentration, Ownership Structure, Board Size, Chief Executive Officer Duality, Shareholders Activism, Audit Committee Independence, Board Independence

1. INTRODUCTION

Capital structure drives the company to meet its obligations regarding better performance and sustainable growth in its operation. This important component is the part of very important debates for the last many years. Companies are facing global competitiveness, survival in the organization demand optimal capital structure had to be investigated. Debt and Equity are two components of capital structure. It is the job of management in corporate form of business to decide about capital structure that increase firm's value. Over the years authorities of different countries and corporations have been experimented different capital structure and observing interventions regarding market reforms. These reforms have been designed to curb economic decline, proposing to make sustainable growth and development. Restructuring and privatization models have been unique as compare to other model applied worldwide. These models aim to attract foreign direct investment, reducing public borrowing requirements and for better economic growth. Firms have limited resources in raising capital through shares or even in long term loans. Firm's using debt financing has greater value than firms without debt financing. Existing literature

on factors influencing capital structure and its impact on corporate governance of Pakistani firm's has so far not comprehensively investigated. These aspects have encouraged this research with a view to take into account supplementary evidence and insights. Use of leverage/debt ratios for non-financial sector has not been sufficiently explored either. Economic development of every country has great importance for industrial sector. It is a fact that countries have showed more economic growth due to strong industrial sector. Industrial sector of Pakistan's economy is the second largest sector that accounts for 25% of the GDP. This sector comprised of large scale, medium and small-scale industries.

Contribution of the large scale industry at the time of independence was only 1.8 % to GDP. However, the small-scale industries contributed 4.6 % to GDP. Large scale industries contribution during the year 2010-11remain 4.4 percent to the real GDP and the small scale industries contribution remain 7.5 percent. Pakistan's industrial sector has potential however it couldn't play its desired role even after six decades. Pakistan's current economic problems are linked to the slow pace of industrial growth. Economic experts considered rapid industrialization is only remedy to put our economy on a sound basis. At the time of partition in 1947, Pakistan had a negligible industrial base received 34 industries out of 955, while remaining was held by India. Such a small number of industries were not sufficient to support a newly born country to face the challenges of industrialized world. Pakistan's economy utilized all available resources for rapid development of industrial sector.

In 1950, the contribution of industry was 6.9 percent of GDP. New industries were established in large numbers during 1950 to 1960 and Pakistani economic sector share in GDP rose from 9.7 percent to 11.9% from1954 to 1960. Industrial sector share to GNP went up to 11.8 percent from 1960 to 1965. The manufacturing sector achieves a growth rate of 7.8% against stated target of 10 percent. The reason was suspension of foreign aid, fall in exports, unfavorable investment climate, reduction in investment incentives, recession in world trade and floods caused a fall in the output of industrial sector. The annual growth rate in the industrial sector during this period fell into 2.8%.

The Government of Pakistan initiated measures to revise the economy; private sector was encouraged for investment in industrial sector. The agriculture sector comprising of forestry, farming, livestock, fisheries and poultry contributes about 22 % to the GDP. This sector contributes to the country's exports and provides raw material to major sectors such as textile, sugar and leather, dairy and other agro-based units.

Industry is an important and second largest sector of the economy that contributes 25 % of the GDP. It comprises of large and middle scale manufacturing units, construction, mining, and gas and electricity distribution. In manufacturing, cotton, cotton cloth and yarn is the major sector. Pakistan's engineering sector in is busy in manufacturing textile related engineering, sugar plant, cement, industrial boilers, construction equipment, petrochemical plant, construction equipment, automotive, power transmission towers. The services sector is an important element of Pakistan's economy; it contributes 53 % in the GDP. Pakistan's leading service units are wholesale and retail trade, communication, storage and transport, personal and social services, banking, insurance and public administration. Industrial sector contribution in GDP growth rate was 9.9 percent in the year 2005 and during the year 2006 it was 4.1 percent. There are multiple reasons behind the decline of manufacturing sector like low production of cotton crops, iron and steel issues, sugar shortage, global oil prices and energy issues. GDP growth rate of industrial sector increased during the year 2006-07. Production of sugar increased in 2007 because of over production and contribute 12% yield, industrial sector rose by 14% and accounted for 27% of GDP. FDI in quarrying and mining and gas and oil exploration rose by 34% and 74%, respectively in 2007. Textile exports reach $10.5 billion in 2007. Pakistani government takes number of initiative to encourage the economy in 2007. There was a drastic decline in 2008-09 in industrial sector. The reason of weakest growth during fiscal year 2008-09 was severe energy shortages, law and order situation, national political issues and depreciation in rupee vis-a-vis US dollar, large price increase in oil and food prices, and global recession. The trade deficit was increased by 17% in that year and high inflation also affected consumers. Steel mill performance was unsatisfactory during the year. Industrial sector recovered during the FY 2010-11 record a decent growth of 4.9 % that was the fourth highest growth rate in the decade.

Financial market conditions are important along with other financial variables to obtain debt financing. (Myers 1984) states that firm specific factors affects corporate financing decision in lieu of industry specific factors. Management that is separate from ownership or they have little share in ownership use debt financing as an internal control mechanism, this mechanism helps in decreasing agency cost and as a result increase financial performance. Previous researches reflect that corporate financing and ownership variables have not uniformity between them. Some scholars argued that minimized agency cost is effective and highly beneficial in the event of ownership entrenchment. Previous researches show positive relationship between financial-leverage and ownership. Some researchers show negative relationship between these two variables. All capital structure theories highlighted optimal capital structure that increase shareholder's wealth, firm's value and overall performance of firms.

Problem that previous studies tried to explore is to find the determinants of capital structure or investigated the impact of debt borrowings on firm value. However, integration of these two ideas is really discovered. Finding the determinants of capital structure of Pakistani listed firms based on corporate governance index is a new field to research. In this study it is emphasized that Managers financing decision is optimal or not and how they should make their financing decisions, What factors decide different corporate financing pattern in non-financial sector Likewise what are the essential determinants of capital structure and whether Corporate governance index affect the determinants of capital structure, What can be significant determinants of capital structure of

Pakistani listed firms are the questions kept before conducting this study.

The main obstacles that have retarded growth of industries in Pakistan are Political instability that has been the first and the foremost cause of industry crisis and backwardness. Industrial sector is suffering due to inconsistent government policies. Lack of Capital in industrial sector is also a main barrier in achieving self-sufficiency. Every industry requires keeping its wheel moving so it need large sum of capital. But due to the non-availability of loan facilities progress in industrial sector is lingering. Limited market size is also the main problem of industrial decline. Manufacturing sector of Pakistan have high costs, inefficient production processes and low labor productivity. Owing to inefficient government economic policies domestic markets of country have not expanded so much to accommodate the domestic good. Moreover likeness of foreign made goods by general public is also giving a severe blow to economy. The proper utilization of material and human resources plays a very vital role in the development of the economy. Production can be improved by fully utilizing the scarce resources. But unfortunately, underutilization material and labors' potential on right direction are causing a great loss and industry is unable to compete with the world. Communication is a very important element that play vital role in industrial progress. Industry fails to survive due to ineffective communication. Our industry is lagging behind owing to absence of transportation, infrastructure, roads, water supply, proper disposal of waste, sanitation and of water and solid. Lack of basic elements along with the expensive communication and transportation is also contributing to industrial failure. Technical knowledge and its significance to industry cannot be ignored. Unskillful labor and worker without technical knowledge makes the industrial progress challenging. Energy crisis is also a big issue in our industry. Basic requirements of industry are electricity, oil and gas, our country is unable to provide constant supply of energy to industry which is creating havoc to industrial sector. Donor countries imposed economic restrictions also contribute to our industry's failure. Textile sector and manufacturing of garments all segments lack modern technology. The inability to provide equipment and machinery timely to modernize textile sector has led to the decline of competitiveness. Competition cannot be avoided; Turkey, Bangladesh and Vietnam are new competitors in industrial sector. Due to inconsistent strategies and uneducated entrepreneurs industrial sector is unable to move forward. Low foreign and local investment, terrorism and security issues are a matter of concern. Foreign investors are not willing to invest in industries therefore net foreign investment is only 0.5 percent of GDP in Pakistani industry. High interest rate is also a big concern of Pakistani industrial sector, high interest rate increase the cost of capital, this element also decelerate FDI.

Financial markets play important role for economic development of the countries. Financial institutions and markets are major source of borrowing for corporate sector .Government of Pakistan nationalization policy in 1970 facilitates political control on private sector companies and financial institution (banks). This policy continued until 1990. Pakistan Banking Council control the operational activities of financial institution in Pakistan formed. Federal government appoints the members of PBC (Pakistan Banking Council). PBC nominates the board of directors of banking sectors in Pakistan. The hierarchy of the banking sector's governance board starts its operation under the control of politicians. According to economic survey, 2006 SBP (State bank of Pakistan) reduce interest rate in textile sector by 3 percent while government also providing 6 to 7 percent subsidy to export oriented projects. Ten percent subsidy of textile sector is lower than the market rate of interest. These policies reduce capital mobilization and affect the corporate financing patterns through debt and equity markets. Capital markets of Pakistan remain underdeveloped because of these policies. Finally, these policies increase the NPLs (non-performing loans) of banking sector of Pakistan.

Government intervention is the need of hour for the rehabilitation of the sick industrial units. It is claimed that operating firms have more value than dead units because it is serving economy by production, employments and other social services but the rest are not doing so. As a result, rehabilitation has more advantages than liquidation of sick units(Sheikh and Wang 2010). In the year 1997, Pakistan national assembly passed banking companies Act 1997 which deals with advance, credit and fiancé and recovery of loans. Under this Act banking courts are established to facilitate the recovery of non-performing loans. These specialized courts make it easy to file a suit to recover the debt through sale of pledged assets of mortgagor within a short time.

Developed countries have strict bankruptcy rule and regulations that protect both debtor and creditors right. Pakistan has no such clear and comprehensive law related to rehabilitation and bankruptcy of companies. There is imbalance between debtors and creditors rights(Sheikh and Wang 2010).Political participation in financial institution, non-professional attitude , unfair lending process and private objective of bank officials are the main causes of high default ratio and increased NPLs of companies. NPLs are only 5% to total loans worldwide, but in Pakistan situation are different and difficult.

Previous studies tried to explore the determinants of capital structure or investigated the impact of debt borrowings on firm value. However, integration of these two ideas is rare to find. Secondly, determinants of capital structure within the ensembles of Pakistani listed firms based on corporate governance index are hardly explored.

What are the significant determinants of capital structure within the ensembles of Pakistani listed firms based on corporate governance index? Do Pakistani listed firms have target debt financing in their capital structure? Does firm's corporate governance index affect the determinants of capital structure?

This study is structured in a way that it describes the significant. After the introduction the rest of the study is organized as follows: section 2 covers literature review, section 3 provides explanation of selected variables and describes methodology different components of econometric

tests while section 4 comprises of results and discussion and the last section the section 5 gives an overall conclusion.

2. LITERATURE REVIEW

In agency there are two parties principal and agent, agents are responsible to perform their obligations according to the instructions given by their principals. Company's managers are agents on the behalf of shareholders (the Principals). The Shareholders always expect good return when they provide equity finance to raise the capital of the company. The agents (the managers) are responsible to meet the desired obligation (good return) expected by their principals. According to the agency theory, whether the managers (the agents) discharged their duties in the best interest of their principals pose a question. This conflict of interest between the shareholders (principals) and managers (agents) raises agency cost of equity. Managers are well aware that if equity finance makes a good deal and business goes well, the entire return goes to shareholders but if managers fail to get maximum return and business went bad they have to borne the entire cost. Managers might misappropriate the funds contributed by new shareholders for non-pecuniary consumption, aiming that these expenses would be shared by new principals (shareholders). As a result when managers do not run the affairs of the company in the best interest of shareholder, the return on investment (from equity finance) to shareholder will be reduced, and this loss of return is the agency cost of equity. Efforts of the managers cost to avoid the loss of return from happening; this compensation to managers is also the component of the agency cost. When shareholders are conscious with these agency matters regarding their investment, they can boost the value of equity to reimburse the agency costs. A number of measures are adopted by shareholders such as threat to exit, buy-out, external directors, and share options to diminish the agency costs.

This cost is the result of conflict of interest between creditors and shareholders. The creditors always expect good return when they provide debt finance to lift up the capital of the company. Shareholders recognize that debt financing can be an instrument to managers. Shareholders always wish to take more debt to invest it on risky projects, though, manager dislike to undertake more debt and risky investment. According to corporate governance theory, Capital structure is not just a financial choice between debt and equity, but it is a selection of governance arrangement that minimize the agency costs. In the case, when debt agency cost problem occurs, as a governance device, equity could be used to minimize agency cost in debt financing. Under the equity arrangement, creditors may be at ease but shareholders have to bear and share the cost of failure with creditors. In the case, when an equity agency problem occurs, debt could be used as a governance tool to lessen equity agency cost. Under debt arrangement, debt repayment is the sole responsibility of managers. Managers will be bound to remain disciplined in order to avoid bankruptcy cost. The balance between the debt and equity agency cost is essential to decide the ideal level of capital structure (Jensen and Meckling 1976).

The research on business strategy approach was originally conducted by(Barton and Gordon 1988). This strategy discusses the impact of product diversification and asset specification on capital structure. Scope of firm and product diversification strategy defines business strategy and it impacts on capital structure (Barton and Gordon 1988).There are two different schools of thoughts in business strategy approach: transactional cost theory and product diversification view. The product diversification point of view focuses on the selection between cost reduction (specialization) and risk reduction (diversification). According to this approach, strategy for product diversification with respect to risk reduction has a positive impact on capital structure (Lowe et al. 1994) (Jordan et al. 1998) Manager's financial choices are signals to investors in order to compensate information asymmetry. These signals are considered as essential for financial relationship. Without cash, it is very much difficult to develop new products, pay dividends make acquisitions, and decrease debt burden. Free cash flow related to capital structure articulates that mitigation of cash flow by paying dividends and interest of debt prevent a executive from probable deviations to misuse firm's income for personal purposes. (Jensen and Meckling 1976) states that paying principal and interest payment of debt is the requirement of law and preferred to pay dividends to reduce the level of free cash flow.

In this research paper, capital structure is used as dependent variable and measured by total leverage that is calculated by total debt to total assets. There is no specific definition of leverage in the theoretical literatures. Scholars made specific definitions according to their objective of the analysis. For instance, (Rajan and Zingales 1995) agreed on four different types of definitions of leverage. These are a) leverage is the ratio of total debt to net assets, where net assets are total assets less accounts payable and other current liabilities, b) leverage is the ratio of total liabilities to total assets, c) leverage is the ratio of total debt to capital, where capital is defined as total debt plus equity, and finally d) leverage is the ratio of total debt (both short term and long term) to total assets. This research uses the last definition of leverage given by (Rajan and Zingales 1995). That means, capital structure is the debt ratio which is measured by dividing the total debt (both short term and long term) by the total assets.

The research in the field of 'ideal', optimal and actual capital structure is very much mature within the scope of corporate finance. More than fifty years ago, (Durand 1952) stated that selection of firm's capital structure could be affected by costs of equity and debt, and as a result firm's value could be influenced by the net balance of the costs of equity and debt in the selective composition of capital. Relevance theory of Durand was based on theoretical models. (Modigliani and Miller 1958) presented a formal theory of capital structure; they developed their 'irrelevance that firm's capital structure does not affect the firm's value under perfect market conditions. These early studies of capital structure presented a large number of theoretical as well as empirical models.

(Durand 1952) traditional relevance theory discussed in three main points, First is the Net

Income Approach, Debt normally cost less than equity; therefore, more debt and equity mixed structure lower the cost of total funds of equity and debt and thus increased the firm's value. In a long term approach with the mixture of higher debt and less stock in capital structure means combination of low cost and expensive source of financing. More use of debt will reduce capital expenditure in capital structure. It means that financial leverage has an impact on cost of capital. Second is the Net Operating Income (NOI), Durand identifies in this approach Durand identifies the cost of debt that restricts using debt as an inexpensive source of funding. When firms use more debt, cost of equity is augmented as shareholders claim higher debt financing. Thus the cost of total financing for both equity and debt increased and as a result firm's value decreased. The advantage of lower cost in debt financing can compensate high cost of equity, thus impacting on the firm's value and third is the Optimal Capital Structure Approach, Firm's value depends on equilibrium linking the advantage of debt funding (cost reduction) and the improved cost of equity (risk reduction). The outcome of the theoretical investigation is that there may be an optimal capital structure where firm's value can be maximized, or the cost of capital minimized by adjusting the proportion of debt to equity. The conventional approach, therefore, spotlights primarily on costs of equity and debt.

In contrast with Durand's (1952) traditional theory, Modigliani (1958) states capital structure does not influence firm's value but only under perfect market conditions (Swanson et al. 2003). For a Perfect market condition following essentials must be fulfilled, market should be free from friction (i.e. no taxes, no legal restriction, no transaction costs and all assets must be traded on a level playing field, (Swanson et al. 2003). Every individual in a security market price taker, and product and security market should be viable that producers provide goods at an average cost with no risk of insolvency. Risk free rate must be same for both firm and individual's borrowing and lending. Information must be accessible to all (firms and individuals) at no cost. Individuals are average value maximizes.

However, in reality markets are far away from perfect. The contribution of Modigliani and Miller's research is remarkable; it helped a lot in the advancement of research on capital structure and their impact on firm's value in imperfect market conditions. According to the efficient market hypothesis Firm and markets condition do vary significantly between market, economic system and countries(Hall et al. 2004) ,Western economies market conditions are much mature and efficient as compared to Asian economies particularly Pakistan a developing country a transactional economy.

A firm can choose between debt financing and equity financing to decide its capital structure to meet business obligations. This choice involves three managers: who operate the business of firm, who provide equity funds to the firm and who supply debt funds in the firm. Firm's capital structure can be influenced subject to various factors by the decision of these managers. (Harris and Raviv 1991) A survey of capital structure classifies its determinants into four groups. In a recent research (Swanson et al. 2003) the range of factors are very wide and the determinants of capital structure includes corporate governance, corporate tax, bankruptcy, agency costs, personal tax, ownership structure, macroeconomic variables, government regulation and others. Scholars have conducted extensive research in the field of capital structure and under imperfect market conditions comprehensive literature explains the 'puzzle' of capital structure (Myers and Majluf 1984).

Under perfect market conditions, the MM model states, being an admissible expense, the debts are more effective in increasing firm's value (Modigliani and Miller 1963) they also states that when interest costs are charged in the event of corporate tax, capital structure has a significant impact on the firm's value. Later on (Miller 1977)introduced personal income tax rate and states that this rate reduced or offset tax benefit of debt. another research represent the impact of non-debt tax shield for instance, investment tax credits, depreciation and depletion allowance and argued that as a result of this tax shield corporate tax benefit of debt improved. These three schools of thought discuss the tax benefits of debt and agreed that these benefits are infinite. (Swanson et al. 2003) debt has a cost otherwise it is great to finance the firm's operations 100% by debt. Research on capital structure enhanced and (Baron 1974) introduce bankruptcy theory. According to bankruptcy theory, more debt increased the risk to equity (high cost of equity) and as a result increases chances of bankruptcy. Another scholar (Warner 1977) argues that direct bankruptcy cost includes administrative cost, reorganization and liquidation cost. Indirect bankruptcy costs consist of propensity to under-invest and managers impaired ability to run the affairs of business effectively. (Altman 2001) states that three years bankruptcy; could be increased by eleven percent to seventeen percent of total firm's value. Some empirical research indicate that small companies have relatively higher cost of bankruptcy than large companies, that's why large firm's tend to have higher debt. According to Trade-off theory (TOT), debt benefits have positive and debt costs have negative impact on debt level. Capital structure's choice depends on the pros and cons of positive and negative factors impact. Firms can choose optimal capital structure that maximized the value of a firm.

Packing order theory POT represents information asymmetry plays a vital role and it is existed among managers, shareholders and creditors when debt or equity is utilized. (Myers and Majluf 1984) believes that insiders are better informed regarding cash flow and opportunities more than outside investors. According POT, firms usually prefer internal finance rather than external funding and favor debt finance instead of equity finance.

Equity issuance impacts negatively to investors (Myers and Majluf 1984). High net present value project are underpriced and rejects due to information asymmetry and as a result under-investment problems occurs. Debt financing signals positively to investors and internal debt avoids the problem of under-investment(Harris and Raviv 1990). (Ross 1978) argues that outside investors perceive good performance of the firm when debt funding is used. Firm's profit, growth and size impact the capital structure but both have different

explanations with respect to POT and TOT. According to TOT, profit, growth and size influence positively to capital structure, as they provide debt and tax deduction and costs of bankruptcy. On the other hand POT argues that same elements impact capital structure negatively due to the presence of information asymmetry.

According to (Berle and Means 1968) the conflict of interest is the major problem in corporate governance theory. They examined that in large corporation, ownership and management control were often alienated. This division is subject to moral hazard, agency cost and adverse selection.

(Jensen and Meckling 1976)was the pioneer to study capital structure from agency cost point of view. The Corporate governance is based on agency cost theory. This theory examine the agency costs and its impact on capital structure considering corporate governance and various conflicts of interest between creditors and shareholders' irrespective debt or equity is used. ATC is based on the assumption that there are conflicts of interest between agent and principals, hence lending to misalignment between these two conflicts (agent and principal) are resulting to decrease the return to principals because agents might not always perform in the best interest of principals. Agency costs include (a) the principals monitoring cost, (b) the agents bonding expenditure, and (c) the residual loss. (Swanson et al. 2003) elaborates the agency cost in a more precise way, agency costs include the expenditure occurs on the formation and construction of contracts, bonding costs, monitoring costs, and the opportunity loss which may be favorable for the want of conflicts of interest between managers and shareholders owing to separation of ownership control from management. (Williamson 1989)defined that agency costs are ex ante expenditure such as mal adaption costs occurred when business contracts flow out of alignment supposed to be included. As a result when managers imposed monetary demands on company all these agency costs are reflected.

According to (Jensen and Meckling 1976) agency problems may be found between the existing owners and new shareholders with respect to equity finance. In equity funding, existing owner managers act as agents and new shareholders act as principals. When existing owners dilute their rights by raising equity from outside, they might be encouraged to chase larger non-pecuniary profits so that they can divide the cost with new shareholders. This is stated as issuance of new equity has incentives due to the effects of dilution or the agency cost of equity. After knowing the agency concerns new owners also demand higher return on their investment, consequently this will push up the cost of equity. Capital structure and agency cost of equity has an inverse relation, as a result when equity cost more this will lower the ratio between debt and equity. This inverse relation will result into an equity agency cost. (Jensen 1986) states that new equity finance has linkage with agency problem, to reduce the equity agency cost debt might be used as a governance tool(Berle and Means 1968) (Jensen and Meckling 1976). Managers are indebted to make repayments to creditors under debt arrangements in order to avoid bankruptcy cost, as a result agency cost of equity decreased. If managers misappropriate the free cash flow on lavishly spending, the repayments are unlikely to be met. In the event of default, creditors may take the company to bankruptcy court to get a claim over its assets and as a result managers would lose their rights and employment (Jensen and Meckling 1976) (Warner 1977) (Castanias 1983)

Return on debt will not be maximized by shareholders in the best interest of creditors, until and unless shareholders and debtors interest are aligned with each other. The non-performance of a debt or loss of return is the agency cost of debt financing. An indirect agency cost arises when creditors try to restrict shareholders performing in this way. When creditors as principals are conscious with these agency matters regarding their investment, they can boost the value of debt to reimburse the agency costs. This enhancement in debt prices are extra cost to the firm in debt finance. This is explicated as the agency cost of firm's debt.

When equity agency cost is less than debt agency cost, companies use more debt. This will increase the ratio of debt in the capital structure; increased debt agency cost device is used to match the equity agency cost. A company tends to use more equity than debt when debt agency cost is more than the equity agency cost. When debt ratio is less than equity ratio this will raise the equity agency cost, a balance between these two ratio debt and equity is necessary to make relevant adjustments in the debt and equity finance both have their influence on a company's capital structure.

Asymmetric of Information theory states those managers have more information than external investors regarding cash flows of firm, investment opportunities. True and fair view of information disclosure is significant factor because due to asymmetric information one party has information compared to another in a transaction. It has detrimental effect on firm's capital structure because one party can take benefit of the other party's lack of knowledge. This can be the reason for two main issues adverse selection and Moral Hazard.

It is assumed, from the academic literature, tangible assets can be used as security against debt. So greater tangibility lowers bankruptcy risk and increases firm's value. Greater tangibility gives rise to high leverage ratio. (Booth et al. 2001) declares the firm that has more tangible assets can issue more secured debt. Tangibility and leverage has positive relation between them. Numerous studies confirm this recommendation, such as (Titman and Wessels 1988) and(Friend and Lang 1988). On the other hand for instant Song and (Huang 2006) states negative relation between tangibility and leverage. According to POT, information asymmetry problem reduced due to high tangible ratio. In this research tangible assets divided by total assets is selected to calculate tangibility.

The pecking order theory and agency cost theory state that growth rate and capital structure has contradictory relation between them. Agency cost theory recommends those firms controlled their equity have propensity to invest sub-optimally to misappropriation of funds form bondholders. In growing industries agency cost is expected to be greater and firms have more option for future investment. According to (Jensen and Meckling

1976) long-term debt level is negatively related with growth rate. Theoretical Results conducted and is fully backed by empirical studies but (Kester 1986) denied this relation. POT shows the positive relation between the debt level and growth rate of companies. Firm's higher growth rate demand higher funds and ceteris paribus they rely on external finance through preferred source of debt .According to pecking order theory management prefers internal finance to external funding and debt finance to equity finance. For growing firm's pecking order theory purposes higher proportion of debt in capital structure (Chung 1993), (Chaplinsky and Niehaus 1990)showed different results contrary to pecking order theory. Trade-off theory describes that high growing firm's use limited because in the event of bankruptcy value of growth opportunities is close to zero (Myers 1984, Williamson 1989) (Harris and Raviv 1990).

Profitable firms use internal sources of finance rather than external sources according to POT (pecking order theory). More profitable firms generate adequate funds from internal sources easily and cost effectively, so they are expected to hold low debt that reflect negative relation between leverage and profitability. Different studies show an inverse relation between leverage and profitability (Rajan and Zingales 1995) (Supanvanij 2006). According to (Sayeed 2011) profitability is irrelevant in determining firm's capital structure. On the other hand, all lenders consider repayment of debt obligations subject to firm's profitability that measures tolerable debt level of the firm. It is stated that highly profitable firms can easily add high debt in their capital structure. (Jensen 1986)argued that companies that are more likely to face agency problem restrict their managers from bad investment decision by reducing access of free cash flows at manager's disposal. However, profitability and leverage has positive relation supported by the trade-off theory, agency cost theory and signaling theory.

Firm size and financial leverage has ambiguous relation between them. Literatures available on company size and leverage show positive relation with certain reasons that larger companies are more likely to be diversified causes less volatile cash flows and more stable, less failure and use economies of scale in securities issuance. Ultimately, smaller firms may not issue debt at lower costs than larger firms. However in this case it can be expected that size and leverage is positively related. Firm size is positively correlated with leverage empirical it is generally found by (Rajan and Zingales 1995) and (Booth et al. 2001). On the other hand some studies found no systematic relationship between debt ratio and size of firm (Ozkan 2001) (Chung and Lian 2006). However, (Fama and Jensen 2008) state that asymmetric information about larger firms may be less because larger companies have a tendency to offer more information to investors than smaller firms. Consequently, their preference for equity increase relative to debt. Results of some previous research by (Icke and Ivgen 2011), (Ellili and Farouk 2011)and (Suhaila et al. 2008) show an inverse relation between size and financial leverage.

Board of a company can influence performance of the firms. (Jensen et al. 1992) states value of a board is relevant. But the problem is that, it is challenging to determine the optimal size of boards. Firm's board is essential for its performance so board constituted mix of executive and non-executive directors. Large proportion of board determines the quality of decisions taken would play a crucial role in firms' performance. Executive directors are well aware with activities of the organization so incompetent executives can be handled safely. Similarly, non-executive directors are "professional referees" to ensure that competition.

Portion of shares held by top shareholders is known as ownership concentration. In past researches different weight are used 5%, 10% and 20%. In this research top 10 shareholders are considered for the concentrated ownership and CEO/Chair duality has inconsistent association according to the past literature. Holding the board chair empowers CEOs to control over optimal level of debt taken by the management. Sub-committee of the board is Audit committee. This committee ensures credibility and integrity of financial information of the company increase confidence of general public in the financial statements. Audit committee is to have oversight responsibility over management in the preparation of the financial reports. Non-executive directors can ensure independence of the audit committee. The committee must consist of only non-executive directors committee must consist of not less than three members. Audit committee independence would establish better corporate performance. The ownership structure could either be widely dispersed to general public or concentrated ownership where shares of the company are owned by few largest shareholders. Large shareholders presence in a company's capital structure would greatly influence performance of a company positively. In this case shareholders are in a position to influence management decision; they have the resources and power to remove inefficient managers from office.

3. METHODOLOGY

This study used panel data of Pakistani non-financial firms listed at PSX 100 index for the period starting from 2007 till 2011. It is because financial and non-financial sector contain different characteristics that can provide biased results therefore penal data of non-financial sector of Pakistan listed on PSX (Pakistan Stock Exchange) are used. However, financial sector, default firms and the firms that were newly registered during the time period of analysis are left. Previous researches on determinants of capital structure target banking and insurance sectors of Pakistan for the study. Structure of Non- Financial sector's companies are different from banking and insurance sectors, it has been observed from previous studies that only one sector from financial and non-financial sectors has been targeted for research on determinants of capital structures.

Newly registered firms and default firms are excluded because these firms document less activity and most of default firms due to accumulated net losses showed negative equity during the period of analysis and these firms may increase intensity of significant results. However, some observations of those documented debt ratio more than 1 are also

excluded. Likewise more than 1 unit debt ratio prevails due to accumulated losses and inclusion of such observations can mislead as these circumstances restrict firms to do business in normal way. Similarly, very few observations showed zero leverage and totally rely on equity financing are also excluded. Moreover, firm's observations documented zero sales for that particular year is also excluded. So, in this way unbalanced panel data for 160 firms with 793 numbers of observations are selected. These 160 firms represent different non-financial sectors i.e. Automobile and Parts, Beverages, Chemical, Cement, Electricity, Electronic And Electrical Goods, Engineering, Fixed Line Telecommunication, Food Products, Forestry (Paper and Board), General Industrials, Health Care Equipment and Services, Household Goods, Industrial Metals and Mining, Industrial Transportation and Leisure Goods (Miscellaneous), Media, Gas and water, Oil and Gas, Personal Goods (Textile), Pharma and Bio Tech, Software and Computer Services, Technology Hardware and Equipment, Tobacco and Travel and Leisure.

Financial statement analyses publications of non- financial firms by state bank of Pakistan for firms listed at PSX 100 for the year 2006-2011 is used for collection of secondary data. Different sources of data are Karachi stock Exchange (www.PSX.com.pk) and www.indexmundi.com. These variables are calculated from the data obtained from financial statement reports of the companies according to specified formulas from 2007-2011. Then, these weights are multiplied with variables values to formulate the cumulative Corporate Governance Index.

The research analyses are conducted in two ways. Determinants of capital structure are explored by selection debt ratio (DR) as dependent variable. It is calculated as ratio of total liabilities to book value of total assets. On the other hand firm size, liquidity, tangibility, return on assets, growth opportunities and corporate governance index are selected as independent variables as demonstrated by model 1. These factors are selected as most critical determinants of capital structure on the basis of discussion made earlier in theoretical background. These factors are selected as most critical determinants of capital structure on the basis of discussion made earlier in theoretical background. Firm size (Size) is measured as total assets are taken as measure of size while current ratio (CR) is deployed to calculate liquidity. Current ratio is calculated as the ratio of current assets divided by current liabilities. Tangibility (Tang) represents the ratio of total fixed assets to total assets. Return on assets (ROA) is calculated as equity divided by total assets. Growth opportunities (SG) are measured through (sales of current year minus sales of previous year divided by sales of previous year) sales growth (CG). Corporate governance index (CG) used to measure the corporate governance variable. As the data is extracted from various industries and one can argue to the effects of industry differences. So, to cater such effects industry adjustments are also made. Similarly, as data is collected for 5 years and time variations can also affect the magnitude and significance of results. To adjust the time variations dummy variables of time are also included while executing proposed models. All dependent variables regressed separately with independent variables.

In this research paper panel data analysis techniques are used, for instance Pooled OLS regression analysis, fixed effects model and random effects model are used for analysis of data. When the existence of group or individual effects in data is not considered then Pooled OLS is used. Panel data used in this research paper comprise of observations over several time periods and multiple cross section. Therefore, cross section data effects are might be interfering in data but this issue can be resolved by using econometric techniques namely as fixed effects model and random effects model.

Different constants are used for each cross section in fixed effects model, while the individual cross sections betas remain constant. The cross sectional constants in random effects model are random rather than fixed. (Hausman 1978) is used in order to decide about the appropriate model that can best explain the result estimation. Fixed effects model has more suitable and descriptive power for my research paper because result of Hausman test reveals about the model. Pooled OLS regression analysis the fixed effects model and random effects models are detailed as follows.

Firms that have same coefficients, Pooled OLS regression analysis have strong assumptions for them. Assumptions of Heterogeneity and Exogeneity are neglected by Pooled OLS regression analysis across the variables and it assumes the same coefficients for all variables. Correlation problem occur because of these effects accumulated in error term and leave issues and causes biased and inconsistent estimates with the explanatory variables. F-stat value is used to further analyze about the assumption of constant coefficients with OLS regression model are hold or not.

Jarque-Bera test technique is used to check the normality of data. White test used to analyses the result of heteroskedasticity if present in the data or not. Constant coefficients and intercepts assumption holds or not in pooled OLS regression analysis is determined by F-test is used. Whether fixed effect or random effect model is consistent Hausman Test is used to analyze. Subsequently F-test recommends that the fixed effect model or random effect model is more appropriate for analysis and it rejects the assumption of Pooled OLS model. Random effect model is more suitable and recommended through Hausman Test statistics. Results of random effect model are unbiased, model is consistent and individual effects do not exist on the bases of Hausman test. After F-test has rejected the Pooled OLS model and recommends the Fixed or Random effect models. Hausman Test statistics recommends the random effect model for the analysis. Following mathematical models are developed from the above discussion. Debt ratio is used as dependent variable in this research to analyses the determinants of capital structure. While the independent variables are: profitability, liquidity, growth opportunities, firm size, asset tangibility, non-debt tax shields, earnings volatility, free cash flows, and interest rates. Data is based upon the statements of financial position of companies so book values are used for measurement of all variables.

Model-1

$$Debt\ Ratio = \beta_0 + \beta_1 CRit + \beta_2 \text{ROA}it + \beta_3 SGit + \beta_4 \text{Size}it + \beta_5 \text{Tangibility}it + \beta_6 \text{CGIndex}it + \varepsilon_{it}$$

Model-2

$$Debt\ Ratio = \beta_0 + \beta_1 IOit + \beta_2 \text{OC}it + \beta_3 OSit + \beta_4 \text{BS}it + \beta_5 \text{CEODua}it + \beta_6 \text{SHA}it + \beta_7 ACIit + \beta_8 BIit + \varepsilon_{it}$$

Model-3

$$ROA = \beta_0 + \beta_1 DRit + \beta_2 \text{DR*IO}it + \beta_3 Sizeit + \beta_4 \text{CR}it + \beta_5 \text{SG}it + \varepsilon_{it}$$

Model-4

$$ROA = \beta_0 + \beta_1 DRit + \beta_2 \text{DR*OC}it + \beta_3 Sizeit + \beta_4 \text{CR}it + \beta_5 \text{SG}it + \varepsilon_{it}$$

Model-5

$$ROA = \beta_0 + \beta_1 DRit + \beta_2 DR * CEODUAit + \beta_3 Sizeit + \beta_4 \text{CR}\ it + \beta_5 \text{SG}it + \varepsilon_{it}$$

Model-6

$$ROA = \beta_0 + \beta_1 DRit + \beta_2 \text{DR*IO}it + \beta_3 DR * OCit + \beta_4 \text{DR*CEODua}\ it + \beta_5 Sizeit + \beta_6 \text{CR}it + \beta_7 \text{SG}it + \varepsilon_{it}$$

Variables	***Symbols***	***Description***	***Measurement***
Debt Ratio	(DR)	Dependent variable	Total debt divided by total assets
Current Ratio	(CR)	Independent variable	Current asset divided by current liabilities
Return on assets	(ROA)	Independent variable	Equity divided by total assets
Sale growth	(SG)	Independent variable	sales of current year-sales of previous year) divided by sales of previous year
Tangibility	(TANG)	Independent variable	Ratio of net fixed assets to total assets
Institutional Ownership	(IO)	Independent variable	Shares held by Institutional Owners divided by Total Number of shares outstanding
Ownership Concentration	(OC)	Independent variable	Total shares held by the top 10 shareholders divided by Total No. of shares.
Ownership Structure	(OS)	Independent variable	Total shares held by executive directors divided by Total No. of shares.
Board Size	(BS)	Independent variable	Total members of Board
Chief Executive Officer duality	(CEOD)	Independent variable	CEO and chairperson is the same or not.
Shareholders activism	(SHA)	Independent variable	Total attendance in the board meeting divided by (Total No. of board meeting * board size
Audit Committee Independence	(ACI)	Independent variable	No. of non-executive directors in Audit Committee divided by Total No. of directors in audit committee.
Board Independence	(BI)	Independent variable	Total non-executive directors divided by Total Board members

4. RESULTS AND DISCUSSION

Model 1

The results of the Fixed Effect and Random Effect Model are presented in table-1 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. It is assumed that disturbance term (εi) is to be serially uncorrelated with mean zero. Based on the overall sample, debt ratio is dependent variable and most of the firm-level determinants are significant as shown in table-1 Liquidity maintains a negative relationship and is significant at the 1% level with debt ratio. This result is highly consistent and strongly supports the pecking order theory, the results of (Deesomsak et al. 2004)are in line with the result of this research. Firms do not need to raise debt when sufficient funds are available to finance their investment internally. Return on assets (ROA) also negatively associated with debt ratio and 1% level it is significant. According to POT (pecking order theory) profitable firms use internal funding to finance their investment projects rather than external financing. Size of the firm is highly significant; this coefficient confirms that return on assets has the largest impact on debt ratio. Tangibility (TANG) is significant at the 1% level with negative coefficient value. This result confirms the applicability of trade-off theory in non-financial firms in Pakistan during the period of analysis from 2007 to 2011. Larger tangible assets provide security to lenders in the event of financial distress, and give greater opportunity to raise debt. High tangibility reduces agency problem that is based on conflicts between creditors and stockholders and protects the creditors from moral hazard.

Model 2

The results of the Fixed Effect and Random Effect Model are presented in table-2 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. Debt ratio is dependent variable and firm-level determinant results are significant as shown in table-2. The R Square is (0.386187) which shows the fitness of model and indicates 38.6% of the variation in debt ratio could be described by the alteration in independent variables. The value in the table is below 0.50 and it does not matter in panel data. However, the Durbin-Watson stat value is (2.336287) which show overall fitness of model. According to the results presented in table 2, the institutional ownership is negatively

associated with capital structure of the firms in Pakistan its association is significant at 1% level. It shows that firms owns by institutions are exposed to lower capital structure risk. Ownership concentration is significant at 1% with positive coefficient value. Ownership Structure (OS) does not affect the debt ratio because the relation between (OS) and (DR) is insignificant. Ownership structure (percentage share held by board of directors) doesn't affect the firm leverage. The relationship is insignificant because companies are small size and family owned companies. When the companies are family owned businesses then the control is in the hand of one family, so one family does not affect the performance.

Model 3

The results of the Fixed Effect and Random Effect Model are presented in table-3 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. ROA is dependent variable and firm-level determinant results are significant as shown in table-3. The R Square is (0.743823) which shows the fitness of model and indicates 74.3% of the variation in ROA could be described by the alteration in independent variables. However, the Durbin-Watson stat value is (2.540879) which show overall fitness of model. According to the results presented in table 3, leverage ratio is negatively associated with ROA and it is significant at 1% level, it means that more debt will reduce the profitability of the company. The institutional ownership (DR_IO) is negatively associated with return on assets. It is significant with ROA at 1% level. Current ratio (CR) is positively associated with ROA and it is significant at 1% level. Significance of (CR) shows that being and independent variable it has great impact on ROA in case of Pakistani firms. Sale growth is positively linked with ROA at 1% significant level. It means that sale growth has an impact of profitability of the firm. Size of the firm represents significantly positive relation with return on assets at 1% level.

Model 4

The results of the Fixed Effect and Random Effect Model are presented in table-4 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. The R Square is (0.748495) which shows the fitness of model and indicates 74.8% of the variation in ROA could be described by the alteration in independent variables. However, the Durbin-Watson stat value is (2.482073) which shows overall fitness of model. The ownership concentration (DR_OC) is negatively associated with return on assets. It is significant with ROA at 10% level. Size of the firm represents significantly positive relation with return on assets at 1% level. Current ratio (CR) is positively associated with ROA and it is significant at 1% level. Significance of (CR) shows that being and independent variable it has great impact on ROA in case of Pakistani firms. Sale growth is positively linked with ROA at 1% significant level. It means that sale growth has an impact of profitability of the firm.

Model 5

The results of the Fixed Effect and Random Effect Model are presented in table-5 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. ROA is dependent variable and firm-level determinant results are significant as shown in table-5. The R Square is (0.745176) which shows the fitness of model and indicates 74.5% of the variation in ROA could be described by the alteration in independent variables. However, the Durbin-Watson stat value is (2.573697) which show overall fitness of model. The CEO duality (DR_CEOD) is positively associated with return on assets. It is significant with ROA at 1% level. Size of the firm represents significantly positive relation with return on assets at 1% level. Results of CEO duality suggest that Combined Leadership Structure and firm performance has positive relation with each other. Results of the research are in line with findings of Stewardship perspective that is favour of combined structure and firms with CEO duality performed better Rechner and Dalton (1991).Current ratio (CR) is positively associated with ROA and it is significant at 1% level. Significance of (CR) shows that being and independent variable it has great impact on ROA in case of Pakistani firms. Sale growth is positively linked with ROA at 1% significant level. It means that sale growth has an impact of profitability of the firm.

Model 6

The results of the Fixed Effect and Random Effect Model are presented in table-6 cross-sectional differences in the firm characteristics are controlled by the firm-fixed effects. The R Square is (0.745176) which shows the fitness of model and indicates 74.5% of the variation in ROA could be described by the alteration in independent variables. However, the Durbin-Watson stat value is (2.546409) which show overall fitness of model. According to the results presented in table 6, leverage ratio is negatively associated with ROA and it is significant at 1% level, it means that more debt will reduce the profitability of the company. The institutional ownership (DR_IO) is negatively associated with return on assets. It is significant with ROA at 1% level. The ownership concentration (DR_OC) is positively associated with return on assets. It is significant with ROA at 5% level. The CEO duality (DR_CEOD) is positively associated with return on assets. It is insignificant with ROA. Size of the firm represents significantly positive relation with return on assets at 1% level. Current ratio (CR) is positively associated with ROA and it is significant at 1% level. Significance of (CR) shows that being and independent variable it has great impact on ROA in case of Pakistani firms. Sale growth is positively linked with ROA at 1% significant level. It means that sale growth has an impact of profitability of the firm.

5. CONCLUSION

This research explores the determinants of capital structure to further ascertaining the significance of financing decisions. Non-financial sector firms are 70% of the total firms listed on (PSX). Panel data of 160 non-financial firms listed at PSX for 2007 to

2011 are selected. Liquidity has 69% influence to make decision regarding debt financing. Return on assets has 25% influences on financing decision regarding debt. Results showed that tangibility and CG index is negatively associated with debt ratio. However, the variable of size documented negative coefficient that reveals that firms are deploying less debt financing that means they are not taking full advantage of debt. Its importance on debt financing decision is only 2%. Return on assets in terms of size of firm is impacted by 29% for size is also explained in term of trade off theory. It is argued that larger firms contain better access to debt market that ultimately concludes into high debt borrowings at lower cost. Research explores negative relationship between debt and tangibility. It has only 1% influence on capital structure decisions. On the contrary negative effects of tangibility are due to pecking order theory and agency theory respectively. High liquidity demonstrates high availability of internal funds that according to pecking order theory should be used first to meet operational needs. On the other hand negative relation between tangibility and debt is attributed to the managers by over spending of prerequisites than its optimal level. However, further it explores that whether these financing decisions are optimal or not. Results revealed that debt financing is more costly decision as on average profits for these firms decrease by 16% when debt ratio increases by whole unit. Since, results from current study explored negative relation between liquidity and leverage, so it can be argued that high debt borrowing at firm level at firm level is not an optimal decision. On the contrary debt borrowing by firm's influences 29% of the firm performance in terms of return on assets, this profitability shows the advantageous decision making by managers. However, still these managers can finance through external sources at lower cost of debt.

Likewise high debt borrowings by firms with high tangible assets also deteriorated firms' profitability. Results revealed that profitability further decreases by 6% on average when highly tangible firms increase their debt ratio by whole unit. This implies that generally managers are following optimal decision making in this respect as negative relation was found between tangibility and leverage. At last results also confirmed that debt financing in case of growth affects positively. Since growth is showing insignificant contribution in determining the extent of debt financing, so it cannot be concluded that managers are following optimal decisions or not in this respect. It influences on debt financing decision 3%, growth has 14% contribution in determining return on assets of Pakistani firms. In short debt borrowings affect negatively to profits overall in all conditions. However, its intensity differs within different contingencies. This research explored that corporate governance index negatively correlated with debt financing it means that firms have poor governance policies and investors did not feel comfortable in this environment of poor governance. Firms need to develop more sound policies to attract the attention of lenders. So, this research provides useful information to managers that whether their financing decision is optimal or not and how they should make their financing decisions. Debt and return on assets revealed negative relationship this indicate that debt financing decrease the financial performance of the firms. Debt financing has 30% impact on firm performance in terms of return on assets. Theoretical debt is most cheap source of finance but in case of Pakistani firms it decreases their performance. It means that debt is not optimally used. Either firms have huge burden or it is less used for. Hence, there is increasing trend in the non-performing loans.

Corporate governance index have insignificant relation with debt financing. Most of the financing depends upon the banks that lead to underdevelopment of the capital market. Code of corporate governance should be revised that make difference between the non-executive and independent directors. Board independence is affected because all non-executive directors are not independent. To capture the effect on debt financing pattern governance variables are independently and separately tested. Institutional Ownership and debt financing has negative association between them. It means that Shares held by Institutional Ownership will be decreased by 8.6% if firms increase one unit of debt in their capital structure. Its importance in financing decision is only 12%. Institutional Ownership when regressed with debt ratio has 2% impact on firms' performance in case of Pakistani companies. Ownership Concentration and debt ratio has strong positive binding between them. These factors are significantly related with each other. It further reveals that the top 10 shareholders have 13% influences on debt financing decision. Leverage ratio and ownership Structure also has positive relation. It means shares held by executive directors have 4% importance on capital structure decisions. Board Size importance is only 2% in debt financing decision means total board member has minute influence on debt ratio. CEO duality has 68% importance on debt financing decision and have positively related with each other. On the other CEO duality when regressed with debt ratio has 1% influence on firms' performance in case of Pakistani companies. In Pakistan 20% of firms CEO and chairperson is the same person. Shareholders activism and debt is negatively associated. It means attendance in the board meeting has only 1% effect on debt financing decisions. Audit Committee independence and debt ratio is also negatively related. Non-executive directors have no influence on capital structure decision. Board Independence is positively related with leverage but has no importance in debt financing decisions. Regardless the substantial contributions of this research, it has some limitations that may guide towards future research. Data limitation is a big issue in Pakistan, data is not easily available or fully documented. So this research is confined to book values of dependent and independent variables, market value of variables should be explored. Future research should be conducted between corporate governance and capital structure debt financing of SME'S through different samples.

REFERENCES

1. Myers, S.C. (1984). The capital structure puzzle. *The journal of finance 39(3)*, 574-592.
2. Sheikh, N.A. and Wang, Z. (2010). Financing behavior of textile firms in Pakistan. *International Journal of Innovation, Management and Technology 1(2)*, 130.
3. Jensen, M.C. and Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and

ownership structure. *Journal of financial economics 3(4)*, 305-360.
4. Barton, S.L. and Gordon, P.J. (1988). Corporate strategy and capital structure. *Strategic management journal 9(6)*, 623-632.
5. Lowe, J., Naughton, T. and Taylor, P. (1994). The impact of corporate strategy on the capital structure of Australian companies. *Managerial and Decision Economics 15(3)*, 245-257.
6. Jordan, J., Lowe, J. and Taylor, P. (1998). Strategy and financial policy in UK small firms. *Journal of Business Finance & Accounting 25(1-2)*, 1-27.
7. Rajan, R.G. and Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The journal of finance 50(5)*, 1421-1460.
8. Durand, D. (1952). Costs of debt and equity funds for business: trends and problems of measurement, pp. 215-262, NBER.
9. Modigliani, F. and Miller, M.H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 261-297.
10. Swanson, Z., Srinidhi, B.N. and Seetharaman, A. (2003). The capital structure paradigm: evolution of debt/equity choices, Greenwood Publishing Group.
11. Hall, G.C., Hutchinson, P.J. and Michaelas, N. (2004). Determinants of the capital structures of European SMEs. *Journal of Business Finance & Accounting 31(5-6)*, 711-728.
12. Harris, M. and Raviv, A. (1991). The theory of capital structure. *The journal of finance 46(1)*, 297-355.
13. Myers, S.C. and Majluf, N.S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics 13(2)*, 187-221.
14. Modigliani, F. and Miller, M.H. (1963). Corporate income taxes and the cost of capital: a correction. *The American economic review 53(3)*, 433-443.
15. Miller, M.H. (1977). Debt and taxes. *The journal of finance 32(2)*, 261-275.
16. Baron, D.P. (1974). Default risk, homemade leverage, and the Modigliani-Miller Theorem. *The American economic review 64(1)*, 176-182.
17. Warner, J.B. (1977). Bankruptcy, absolute priority, and the pricing of risky debt claims. *Journal of financial economics 4(3)*, 239-276.
18. Altman, E. (2001). Bankruptcy, credit risk and high yield junk bonds, Part 1 Predicting financial distress of companies: revisiting the Z-score and Zeta® model, Oxford, UK: Blackwell Publishing.
19. Harris, M. and Raviv, A. (1990). Capital structure and the informational role of debt. *The journal of finance 45(2)*, 321-349.
20. Ross, S.A. (1978). Some Notes On Financial Incentive-Signalling Models, Activity Choice And Risk Preferences. *The journal of finance 33(3)*, 777-792.
21. Berle, A. and Means, G. (1968). The Modern Corporation and Private Property (New York, 1932). Part II.
22. Williamson, O.E. (1989). Transaction cost economics. Handbook of industrial organization 1, 135-182.
23. Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review 76(2)*, 323-329.
24. Castanias, R. (1983). Bankruptcy risk and optimal capital structure. *The journal of finance 38(5)*, 1617-1635.
25. Booth, L., Aivazian, V., Demirguc-Kunt, A. and Maksimovic, V. (2001). Capital structures in developing countries. *The journal of finance 56(1)*, 87-130.
26. Titman, S. and Wessels, R. (1988). The determinants of capital structure choice. *The journal of finance 43(1)*, 1-19.
27. Friend, I. and Lang, L.H. (1988). An empirical test of the impact of managerial self-interest on corporate capital structure. *The journal of finance 43(2)*, 271-281.
28. Huang, G. (2006). The determinants of capital structure: Evidence from China. *China economic review 17(1)*, 14-36.
29. Kester, W.C. (1986). Capital and ownership structure: A comparison of United States and Japanese manufacturing corporations. *Financial Management*, 5-16.
30. Chung, K.H. (1993). Asset characteristics and corporate debt policy: an empirical test. J*ournal of Business Finance & Accounting 20(1)*, 83-98.
31. Chaplinsky, S. and Niehaus, G. (1990). The tax and distributional effects of leveraged ESOPs. Financial Management, 29-38.
32. Supanvanij, J. (2006). Capital structure: Asian firms vs. multinational firms in Asia. *The Journal of American Academy of Business*, Cambridge 10(1), 324-330.
33. Sayeed, M.A. (2011). The determinants of capital structure for selected Bangladeshi listed companies. *International review of business research papers 7(2)*, 21-36.
34. Ozkan, A. (2001). Determinants of capital structure and adjustment to long run target: evidence from UK company panel data. *Journal of Business Finance & Accounting 28(1-2)*, 175-198.
35. Chung, C.-F. and Lian, Y.-J. (2006). The Influences of Asymmetric Information and Agency Cost on Investment: Evidence from Listed Firms in China.
36. Fama, E. and Jensen, M. (2008). Agency Problems and Residual Claims. *Journal of Law and Economics, XXVI (2),* June, 327-49. International Library Of Critical Writings In Economics 214(3), 365.
37. Icke, B.T. and Ivgen, H. (2011). How Firm Specific Factors Affect Capital Structure: An Emerging Market Practice–Istanbul Stock Exchange (ISE). Middle Eastern Finance and Economics 13, 90-102.
38. Ellili, N.O.D. and Farouk, S. (2011). Examining the capital structure determinants: empirical analysis of companies traded on Abu Dhabi Stock Exchange. *International research journal of finance and economics 67*, 82-96.
39. Suhaila, M.K., Mahmood, W. and Mansor, W. (2008). Capital structure and firm characteristics: Some evidence from Malaysian companies.
40. Jensen, G.R., Solberg, D.P. and Zorn, T.S. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative analysis 27(02)*, 247-263.
41. Hausman, J.A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251-1271.
42. Deesomsak, R., Paudyal, K. and Pescetto, G. (2004). The determinants of capital structure: evidence from the Asia Pacific region. *Journal of multinational financial management 14(4)*, 387-405.

Table 1. Model 1

REGRESSION ANALYSIS					***FIXED EFFECT MOD***					***RANDOM EFFECT MODEL***				
Dependent Variable: DR					Dependent Variable: DR					Dependent Variable: DR				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 11:57					Date: 09/02/13 Time: 12:16					Date: 09/02/13 Time: 12:18				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 782					Total panel (unbalanced) observations: 782					Total panel (unbalanced) observations: 782				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	-0.09***	0.004685	-21.2708	0.0000	CR	-0.10***	0.002602	-40.5719	0.0000	CR	-0.09***	0.00442	-22.547	0.0000
ROA	-0.48***	0.053568	-9.07476	0.0000	ROA	-0.52***	0.018758	-27.9478	0.0000	ROA	-0.48***	0.043371	-11.2084	0.0000
SG	0.000671	0.010399	0.06452	0.9486	SG	-0.00584	0.008839	-0.66048	0.5092	SG	0.000671	0.013288	0.050493	0.9597
SIZE	-0.00309	0.004209	-0.73299	0.4638	SIZE	0.003***	0.001101	3.025165	0.0026	SIZE	-0.003**	0.001324	-2.33044	0.0200
TANG	-0.06**	0.030984	-2.15278	0.0316	TANG	-0.04***	0.004342	-10.7454	0.0000	TANG	-0.06***	0.014447	-4.61688	0.0000
CG	-0.00781	0.007614	-1.0254	0.3055	CG	-0.00591	0.006112	-0.96748	0.3337	CG	-0.007**	0.003546	-2.20178	0.0280
C	0.876707	0.071458	12.2689	0.0000	C	0.779665	0.025496	30.58038	0.0000	C	0.876707	0.020227	43.34314	0.0000
R-squar	0.523506	Mean dependent var		0.580131	R-squar	0.844382	Mean dependent var		0.895952	R-squar	0.523506	Mean dependent var		0.580131
F-stat	141.9104	Durbin-Watson stat		1.933862	F-stat	20.10237	Durbin-Watson stat		2.470291	F-stat	141.9104	Durbin-Watson stat		1.933862

Significance at 1% (***),5% (**),and 10% (*)

Table 2. Model 2

REGRESSION ANALYSIS					***FIXED EFFECT MOD***					***RANDOM EFFECT MODEL***				
Dependent Variable: DR					Dependent Variable: DR					Dependent Variable: DR				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 12:01					Date: 09/02/13 Time: 12:19					Date: 09/02/13 Time: 12:20				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 793					Total panel (unbalanced) observations: 793					Total panel (unbalanced) observations: 793				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
IO	-0.086*	0.049613	-1.7385	0.0825	IO	-0.081***	0.01575	-5.17447	0.0000	IO	-0.086***	0.018291	-4.71553	0.0000
OC	0.109**	0.05265	2.08565	0.0373	OC	0.1659***	0.03652	4.543801	0.0000	OC	0.109***	0.016965	6.472769	0.0000
OS	0.040499	0.056722	0.71399	0.4754	OS	0.011235	0.02388	0.470461	0.6382	OS	0.0404*	0.024431	1.657669	0.0978
BS	0.002168	0.004894	0.4429	0.6579	BS	0.004149	0.00387	1.069487	0.2853	BS	0.002168	0.00242	0.895942	0.3706
CEOD	0.069***	0.018135	3.82281	0.0001	CEOD	0.054***	0.00815	6.654878	0.0000	CEOD	0.0693***	0.006313	10.9825	0.0000
SHA	-0.00197	0.001676	-1.17254	0.2413	SHA	-0.002***	0.00056	-4.88197	0.0000	SHA	-0.001***	0.000371	-5.30287	0.0000
ACI	-0.00109	0.047431	-0.02299	0.9817	ACI	-0.00542	0.02136	-0.25383	0.7997	ACI	-0.00109	0.008018	-0.13601	0.8919
BI	0.034705	0.052018	0.66717	0.5049	BI	0.068***	0.02138	3.223111	0.0013	BI	0.0347*	0.018725	1.853411	0.0642
C	0.476052	0.064706	7.35711	0.0000	C	0.409423	0.05883	6.958932	0.0000	C	0.476052	0.028775	16.5441	0.0000
R-squared	0.259451	Mean dependent var		0.581683	R-squared	0.386187	Mean dependent var		0.773901	R-squared	0.059451	Mean dependent var		0.581683
F-statistic	6.194412	Durbin-Watson stat		1.816484	F-statistic	2.336878	Durbin-Watson stat		2.336287	F-statistic	6.194412	Durbin-Watson stat		1.816484

*Significance at 1%****
*Significance at 5%***
*Significance at 10% **

Table 3. Model 3

REGRESSION ANALYSIS					***FIXED EFFECT MOD***					***RANDOM EFFECT MODEL***				
Dependent Variable: ROA					Dependent Variable: ROA					Dependent Variable: ROA				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 12:13					Date: 09/02/13 Time: 12:29					Date: 09/02/13 Time: 12:30				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
DR	-0.16***	0.024779	-6.69578	0.0000	DR	-0.13***	0.005363	-25.8336	0.0000	DR	-0.15***	0.016712	-9.43708	0.0000
DR_IO	-0.06***	0.020367	-3.34499	0.0009	DR_IO	-0.06***	0.005099	-12.274	0.0000	DR_IO	-0.07***	0.013148	-5.44102	0.0000
SIZE	0.027***	0.002705	10.08775	0.0000	SIZE	0.02***	0.001314	21.17146	0.0000	SIZE	0.027***	0.001269	21.82818	0.0000
CR	0.009***	0.003629	2.617156	0.0090	CR	0.007***	0.000836	8.628861	0.0000	CR	0.008***	0.002833	2.891465	0.0039
SG	0.016***	0.006825	2.370974	0.0180	SG	0.010***	0.004447	2.379422	0.0176	SG	0.015437	0.010043	1.537195	0.1247
C	-0.20346	0.04668	-4.35849	0.0000	C	-0.22455	0.016426	-13.6707	0.0000	C	-0.21145	0.018426	-11.4758	0.0000
R-squared	0.324357	Mean dependent var		0.117614	R-squared	0.743823	Mean dependent var		0.15006	R-squared	0.318984	Mean dependent var		0.08721
F-statistic	74.02705	Durbin-Watson stat		1.675305	F-statistic	10.75193	Durbin-Watson stat		2.540879	F-statistic	72.22628	Durbin-Watson stat		1.953213

*Significance at 1%****
*Significance at 5%***
*Significance at 10% **

Table 4. Model 4

REGRESSION ANALYSIS					***FIXED EFFECT***					***RANDOM EFFECT***				
Dependent Variable: ROA					Dependent Variable: ROA					Dependent Variable: ROA				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 12:06					Date: 09/02/13 Time: 12:21					Date: 09/02/13 Time: 12:23				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
DR	-0.20***	0.036106	-5.79693	0.0000	DR	-0.15***	0.023558	-6.42729	0.0000	DR	-0.19***	0.011347	-17.4423	0.0000
DR_OC	0.010694	0.035702	0.29953	0.7646	DR_OC	-0.032*	0.017357	-1.87204	0.0617	DR_OC	0.006592	0.014868	0.443401	0.6576
SIZE	0.024***	0.00258	9.332479	0.0000	SIZE	0.026***	0.000975	26.74084	0.0000	SIZE	0.024***	0.001578	15.44841	0.0000
CR	0.008***	0.003653	2.454445	0.0143	CR	0.007***	0.00219	3.610629	0.0003	CR	0.008***	0.002364	3.582761	0.0004
SG	0.018***	0.006863	2.635672	0.0086	SG	0.010***	0.004019	2.599204	0.0096	SG	0.01790*	0.010767	1.662759	0.0968
C	-0.15366	0.045114	-3.40595	0.0007	C	-0.19589	0.014028	-13.9636	0.0000	C	-0.16243	0.021341	-7.61139	0.0000
R-squared	0.314632	Mean dependent var		0.117614	R-squared	0.748495	Mean dependent var		0.147007	R-squared	0.304095	Mean dependent var		0.093025
F-statistic	70.78852	Durbin-Watson stat		1.732227	F-statistic	11.02046	Durbin-Watson stat		2.482073	F-statistic	67.38188	Durbin-Watson stat		1.943459

*Significance at 1%****
*Significance at 5%***
Significance at 10%

Table 5. Model 5

REGRESSION ANALYSIS					***FIXED EFFECT***					***RANDOM EFFECT***				
Dependent Variable: ROA					Dependent Variable: ROA					Dependent Variable: ROA				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 12:08					Date: 09/02/13 Time: 12:24					Date: 09/02/13 Time: 12:26				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Stat	Prob.	Variable	Coefficient	Std. Error	t.Stat	Prob.
DR	-0.20***	0.02373	-8.62257	0.0000	DR	-0.18***	0.008306	-22.6701	0.0000	DR	-0.19***	0.016779	-11.8128	0.0000
DR_CEOD	0.006547	0.012535	0.52225	0.6016	DR_CEOD	0.007***	0.002031	3.803367	0.0002	DR_CEOD	0.00544	0.01272	0.427662	0.6690
SIZE	0.024***	0.00263	9.315256	0.0000	SIZE	0.027***	0.001338	20.58333	0.0000	SIZE	0.025***	0.00206	12.11137	0.0000
CR	0.008**	0.00365	2.45678	0.0142	CR	0.005***	0.001276	4.686173	0.0000	CR	0.007***	0.0028	2.769803	0.0057
SG	0.017***	0.00685	2.62231	0.0089	SG	0.0099**	0.004973	1.998477	0.0461	SG	0.01702	0.01080	1.575173	0.1156
C	-0.1594	0.04537	-3.51273	0.0005	C	-0.21001	0.013603	-15.4389	0.0000	C	-0.16888	0.02728	-6.19007	0.0000
R-squared	0.314794	Mean dependent var		0.11761	R-squared	0.745176	Mean dependent var		0.15145	R-squared	0.308025	Mean dependent var		0.087802
F-statistic	70.84193	Durbin-Watson stat		1.6817	F-statistic	10.82868	Durbin-Watson stat		2.5736	F-statistic	68.64037	Durbin-Watson stat		1.95178

*Significance at 1%****
*Significance at 5%***
*Significance at 10% **

Table 6. Model 6

REGRESSION ANALYSIS					***FIXED EFFECT***					***RANDOM EFFECT***				
Dependent Variable: ROA					Dependent Variable: ROA					Dependent Variable: ROA				
Method: Panel Least Squares					Method: Panel EGLS (Cross-section weights)					Method: Panel EGLS (Cross-section random effects)				
Date: 09/02/13 Time: 12:11					Date: 09/02/13 Time: 12:27					Date: 09/02/13 Time: 12:28				
Sample: 2007 2011					Sample: 2007 2011					Sample: 2007 2011				
Periods included: 5					Periods included: 5					Periods included: 5				
Cross-sections included: 161					Cross-sections included: 161					Cross-sections included: 161				
Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777					Total panel (unbalanced) observations: 777				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
DR	-0.19***	0.03711	-5.2351	0.0000	DR	-0.16***	0.01598	-10.266	0.0000	DR	-0.18***	0.02863	-6.493	0.0000
DR_IO	-0.07***	0.02130	-3.4724	0.0005	DR_IO	-0.06***	0.00619	-11.049	0.0000	DR_IO	-0.07***	0.0137	-5.707	0.0000
DR_OC	0.04077	0.03648	1.1174	0.2642	DR_OC	0.028**	0.014194	1.98548	0.0475	DR_OC	0.041**	0.0182	2.2808	0.0228
DR_CEOD	-0.00126	0.01266	-0.0995	0.9207	DR_CEOD	0.00202	0.00164	1.23037	0.2190	DR_CEOD	-0.0021	0.0135	-0.158	0.8745
SIZE	0.027***	0.00274	9.87593	0.0000	SIZE	0.02***	0.00152	18.3294	0.0000	SIZE	0.027***	0.0015	17.3027	0.0000
CR	0.009***	0.00363	2.59044	0.0098	CR	0.00***	0.00092	6.90150	0.0000	CR	0.00***	0.0028	2.85022	0.0045
SG	0.0164**	0.00683	2.408315	0.0163	SG	0.011***	0.00426	2.645642	0.0084	SG	0.01576	0.0102	1.53552	0.1251
C	-0.20015	0.04705	-4.2537	0.0000	C	-0.22226	0.01807	-12.298	0.0000	C	-0.2074	0.0209	-9.887	0..000
R-squared	0.325458	Mean dependent var		0.11761	R-squared	0.746888	Mean dependent var		0.149642	R-squared	0.32012	Mean dependent var		0.0866
F-statistic	53.00464	Durbin-Watson stat		1.67465	F-statistic	10.76078	Durbin-Watson stat		2.546409	F-statistic	51.7263	Durbin-Watson stat		1.95667

*Significant at 1% *** Significant at 5% ** Significant at 10%*

Table 7. Model 1

CO-RELATION MATRIX DEPENDANT VARIABLE DR							
	DR	CR	ROA	SG	SIZE	TANG	CG
DR	1						
CR	-0.68024	1					
ROA	-0.46432	0.354478	1				
SG	-0.00672	-0.03607	0.097319	1			
SIZE	-0.12772	0.054302	0.35207	0.085952	1		
TANG	0.350272	-0.46319	-0.47149	0.03806	-0.33106	1	
CG	-0.05485	0.023567	0.041709	-0.00566	0.055521	0.035602	1

Table 8. Model 2

CO-RELATION MATRIX DEPENDENT VARIABLE DEBT RATIO									
	DR	IO	OC	OS	BS	CEOD	SHA	ACI	BI
DR	1								
IO	-0.17069	1							
OC	0.045855	0.292027	1						
OS	0.172202	-0.80993	0.009524	1					
BS	-0.05165	0.219526	0.019143	-0.17832	1				
CEOD	0.177427	-0.26238	-0.00556	0.200915	-0.28346	1			
SHA	-0.05068	0.062165	0.046628	-0.04441	-0.03878	-0.0314	1		
ACI	-0.03709	0.016762	-0.14464	-0.02584	0.212499	-0.2984	-0.0300	1	
BI	-0.0313	0.093835	-0.06522	-0.12162	0.20003	-0.2689	0.03954	0.625834	1

Table 9. Model 3

CO-RELATION MATRIX DEPENDENT VARIABLE ROA						
	ROA	DR	DR_IO	SIZE	CR	SG
ROA	1					
DR	-0.47036	1				
DR_IO	-0.21604	0.460867	1			
SIZE	0.346377	-0.13153	0.235334	1		
CR	0.361812	-0.67998	-0.29528	0.058608	1	
SG	0.102471	-0.00561	-0.04309	0.089459	-0.03738	1

Table 10. Model 4

CO-RELATION MATRIX DEPENDENT VARIABLE ROA						
	ROA	DR	DR_OC	SIZE	CR	SG
ROA	1					
DR	-0.47036	1				
DR_OC	-0.38002	0.85474	1			
SIZE	0.346377	-0.1315	-0.0490	1		
CR	0.361812	-0.6799	-0.5698	0.058608	1	
SG	0.102471	-0.0056	-0.0279	0.089459	-0.0373	1

Table 11. Model 5

CO-RELATION MATRIX DEPENDENT VARIABLE ROA						
	ROA	DR	DR_CEOD	SIZE	CR	SG
ROA	1					
DR	-0.47036	1				
DR_CEOD	-0.23525	0.401935	1			
SIZE	0.346377	-0.13153	-0.26441	1		
CR	0.361812	-0.67998	-0.25593	0.058608	1	
SG	0.102471	-0.00561	-0.02005	0.089459	-0.0373	1

Table 12. Model 6

CO-RELATION MATRIX DEPENDENT VARIABLE ROA								
	ROA	DR	DR_IO	DR_OC	DR_CEOD	SIZE	CR	SG
ROA	1							
DR	-0.4703	1						
DR_IO	-0.2160	0.46086	1					
DR_OC	-0.3800	0.85474	0.51576	1				
DR_CEOD	-0.2352	0.40193	-0.0118	0.31876	1			
SIZE	0.34637	-0.1315	0.23533	-0.0490	-0.26441	1		
CR	0.36181	-0.6799	-0.2952	-0.5698	-0.25593	0.05860	1	
SG	0.10247	-0.0056	-0.0430	-0.0279	-0.02005	0.08945	-0.037	1