DETERMINENTS OF CAPITAL STRUCTURE OF CEMENT SECTOR IN PAKISTAN

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Abstract

This research aims to find out the Capital Structure determinants and their relationships in listed firms of Pakistan cement industry. Due to a capital-intensive industry, requirement of huge funds emerged to organize a business and for further expansion of its capacity. Capital structure of Cement industry shows unique features. We took debt ratio to examine the impact of high or low ratio on overall capital structure. We measure debt ratio's impact through measuring its impact on 7 variables i.e. taxability, liquidity cost of debt, growth, tangibility, dividend and profitability. The study selected 18 firms in the cement sector out of 22, mentioned and registered in the Karachi Stock exchange, and the data has been analyzed for the period 2008 to 2013 using panel least square method of regression. Following results are achieved from the research and shown in the paper. The independent variables including liquidity, profitability and COD have a significant impact and negatively related with debt ratio, that means if these variables increase debt ratio will go decrease. Other variable including tax and growth also have significant impact and a positive relationship that means if these two variables increase, debt ratio will decrease. The remaining three variables size tangibility and dividend has no significant remaining three variables size tangibility and dividend has no significant impact on debt ratio that means there would be no impact of any change occurs in these variables on debt ratio.

Keywords: Liquidity, profitability, Cost of debt, tax, growth , debt ratio, size, tangibility and dividend

Introduction

Determining the capital structure is an important part in managing cost of capital. It centers many other decisions in the area of financial management of any company. It tends to focus on financing firm's assets through both equity and debt. It includes project financing, long term securities issues, financing of mergers & acquisitions, dividend policy and so on. Main objective of any firm is to make sure lower the capital cost

sometimes where optimal capital structure is achieved. And therefore, maximizes the shareholders' wealth.

maximizes the shareholders' wealth.

Research work has been done in many developed economies and still not much known about the capital structure of firms. So no basis can be drawn from both empirical and theoretical research conclusions done in developed economies. To study and examine the G-7 countries Zingales (1995) has done research work while in the purpose of identifying the capital structure determinants Booth et al (2001) carried out research on emerging markets by extending the research work but still more research was needed. Question arises on optimal capital structure after many years of study on capital requirements to finance firm's activities on any given level. Capital Structure is complex area of strategic decision making in finance overwhelmed by Miller and Modigliania (1958, 1963). The researchers recognized so much factorial issues through which capital structure is being affected. And these studies covers twenty nine year's period 1976-2004, to examine various capital structure determinants of financing choices in companies listed on KSE and private or public sector impact on decisions, whether to go for debt financing or raise equity.

In order to maximize the firm's value company can decide among alternatives of capital structure to manage assets. Modigliani and Miller (1958) have a great influence which pointed out the prospects of profits and risk inherited to firm's assets, determined its market value and it decided to manage its investments or distribution of dividend independently. Keeping

risk inherited to firm's assets, determined its market value and it decided to manage its investments or distribution of dividend independently. Keeping in view, Company or any firm may select from different procedures to finance its projects, these are: matter of borrow or spend profits and shares to be issued. It involves complexity in assuming and implies on the fact that no matter a firm supports its assets with equity or debt.

However, many unrealistic assumptions support this fact; it gives the basic theoretical details on optimum capital structure and its determinants for additional research. Three main theories (Theory of Static Trade off, Pecking Order Theory, & the Signaling Theory) were appeared which described the reaction of the firm in selecting the suitable capital structure all through a period of this time.

through a period of this time.

Statement of Problem

In this study we try to find out what should be the best combination of a capital structure .there are so many factors have to be consider while deciding on debt ratio and the whole capital structure. The chances of default and bankruptcy increases in times of low business's earnings and other so many factors and risks must be consider while deciding on capital equity and debt ratio. The need to exercise the optimal level of capital structure is

required, because its absence can shift the control of company to the debt holders

Research Question

'What are the impacts of high or low debt ratio over Capital Structure of Cement sector in Pakistan?"

Objectives of the Research

Public companies are more concern towards the mix of Capital Structure. Objectives of this research are given below:

1. Identify determinants of Capital structure for the companies of

- cement sector.

- Find out the determinants of Optimal Capital Structure.
 To determine the impact of debt ratio on overall Capital Structure.
 To conclude such results which are helpful in determining the optimal mix of the Capital Structure.

Study's Significance

Study is very significant for the cement sector as far as their concern about the optimal capital structure. It can suggest the companies about the deep consideration of the effect on the capital structure. Implementing of its results on their financials can make them to maximize the wealth of shareholders. It will lead the users for better financial decision making.

Literature review

TalatAfza and Amer Hussain (2011) based her study on the researches of Rajan Booth et al. (2001) and Zingales (1995). She examined industry specific attributes by taking twenty two (22) Automobile, seven (7) Cable and Electrical Goods and eight (8) Engineering firms as a sample in order to identifying capital structure determinants through using pooled data regression model. Financing behavior of these companiesdepend upon the provision for tax, structure of asset, non debt tax shield, size and profitability and liquidity of the firms. Results arrived in support of the Pecking OrderTheory and Static Tradeoff Theory. The variables liquidity, tax and cost of debt used in this study have influenced on debt financing decisions. In order to reduce debt cost and improve growth and operations through financing through debt bigger companies of Automobile Sector with appropriate structure of asset must focus on retained earnings and then equity financing for further funds if require. Debt financing may be used by big companies of Cable and Electrical Goods Sector even if the debt cost increasing as there is no other alternative of their survival due to worse economic circumstances. So, it is clear indication in terms of Liquidity and

Non Debt Tax Shield the estimated results are consistent among these sectors that they should use retained earnings, and also for growth purpose and running of operations debt financing should be in use, it has supported the Pecking order Theory.

Pecking order Theory.

The research by Muhammad Azeem Qureshi and TauseefAzid (2006) explains and analyzes that the firms in public sector tend to have structure of governance which is not similar when comparison is done with private sector and they might have privilege to access different financial alternative to take decisions on and the way debt has achieved the level of privileged and governance structure it has got much preference.

The research by AttaUlla Shah and SafiUlla Khan (2007) on capital structure determinants discussed the facts from data of Pakistani panel. Firms those are listed on KSE as non-financial firms 1994 to 2002 He used through

pooled regression analysis examined the capital structure determinants in order to measure their effect on Debt Ratio throughsix explanatory variables, tangibility(fixed Assets), earning volatility, depreciation, growth, profitability and Size out of which three variables tangibility, growth, profitability were related to Debt Ratio significantly whereas the remaining three variables, size, earning volatility and depreciation were not statistically significant. The results under this research approved the prediction of tradeoff theory.

The research being done by Irfan Ali (2001) to explore the independent variables, datafrom 2003 to 2008 on capital structure of firms which were not financial institutions and were registered in Karachi Stock Exchange, Pakistan. Results from Irfan Ali (2001) research were proved to be significant statistically with variable of inflation, profitability, size, tangibility, growth, but relationships between profitability and Debt Ratio has been found negative. On the other hand, relationships between long term debt and growth and dividend and total debt of firms shows conformity with pecking order theory and found positive and predictions of trade-off theory in determining the financing behavior of Pakistani firms.

Tariq Naeem Awan (2011) examines the Sugar and allied industry's capital structure determinants of thirty three (33) firms of Pakistan listed on KSE consisting on four (4) independent variables, tangibility, profitability, firm size, and growth with the help of regression analysis, we have found that size and profitability have negative relationship with Debt Ratio and tangibility and growth have the positive relationship with the Debt Ratio.Sidra Amjad (2011) examined the capital structure determinants of Pakistani banking sector, she did research by selecting twenty six (26) banks annual reports from the period of 2007 to 2011 by taking significant determinants, tangibility opportunities, size, profitability, growth, and liquidity. Size, liquidity directly impacts on Debt Ratio; however tangibility

and growth opportunities, profitability have been found negatively correlated with Debt Ratio. Countries which are still developing this research has drawn a conclusion that tangibility has no direct relationship with Debt Ratio as level of bank debt goes down when we increase its collateral level. Profitability has inverse relationship with its Debt Ratio financing suggests to use less intangible assets to banks if they are considering financing through the use of debt. Furthermore, according to the Agency Cost Theory firms which tend to have more growth opportunities prefer to do financing through against a growth opportunities are risky. equity they have more opportunities through through equity as they have more opportunities in risky investments) Research by Nadeem Ahmed Sheikh and Zongjun Wang (2011) explored 160 manufacturing companies from years to 2003-2007 numbered to 160 and found the reasons influencing capital structure, companies he picked were listed on the KSE Pakistan. He used econometric techniques as in panel such as pooled OLS, random and fixed effects. Finding of this research is, non-debt tax shield, liquidity, earnings volatility, profitability, and are found negative with debt ratio with no significance whereas, firm's size, growth and tangibility (assets structure) are positively correlated with the debt ratio. He identified and examined different variables such as, firm size, earnings volatility, profitability, liquidity, tangibility (Assets structure), non debt tax shield, and growth.

In perspective of Pakistan, the results came in light were from Tobacco and engineering industries are supposed to be heavily incurred with debt as compare to their size and industry stated by Rahman (1990).

Another research analyzed insurance companies of Pakistan from the period of seven years from 2001 to 2007 on the determinants of Capital Structure the research has been done by Naveed et al. (2010) taking dependent variable "Debt Ratio" while risk, growth, tangibility of assets, profitability, age ,size and liquidity are selected as independent variables. It concludes that Debt Ratio found to have a negative relationship with liquidity, profitability, and age while positive relationship has been found between size and Debt Ratio. The results indicated that Debt Ratio has found no significant relationship with growth and tangibility of assets.

Miller and Modigliani (1958) depicted that from the point of view of capital structure value of the firm is tend to be independent on given hypothesis considering different scenarios. In practical world these different

capital structure value of the firm is tend to be independent on given hypothesis considering different scenarios. In practical world these different scenarios are not applicable. M&M further discovered and published of their past work with the corrected version as "A Correction" in (1963). In which, they have discussed that capital structure point of view says the firm value is not dependent but the cost of debt developed gap. Further study described that interest expenses which charge on debt are supposed to be tax deductible due to the law of income tax. Whereas, no tax deductibility is supposed to be on dividend payments; companies itself are liable to pay their taxes on

incomes and it makes the method ofequity to be a costly source of financing. Hence, It has supported the view that corporations should use debt in their capital structures. This research facilitates basis for another researchers for further examine. However, other theories of capital structure like pecking order theory, static trade-off theory and agency cost theory have some views. Such as, Agency theory describes (The cost, which owners pay to managers or agents, is called cost of agency). It further describes that owners are liable to have take the burden of cost due to separation of managers and owners in the corporation. The shareholders must give additional benefits to managers for their well-performed work and productivity. Managers are supposed to act as agent of owners of company and debt providers if the firm borrows debt debt.

Masulis and De Angelo (1980) extended the research of tax model given and proposed by Miller in which they concluded that through the coordination of personal and corporate taxes capital structure may be determined in order to maximize its value.

According to research of Baxter (1967) companies must avoid the incurrence of debt at level where cost of debt tends to be greater as compare to tax advantage. He said creditors demand extra risk premium as higher debt increase the chances of bankruptcy. Same statement argued by Kraus and Litzenberger (1973) if debt obligations go beyond the level of its earnings then the market value of anygiven company will go doom into debt obligations.

obligations.

Altman (1984) founded that sample of given firms has faced indirect costs of bankruptcy by 12.2% where time supposed to be t-1 and 16.7% at time at any given "t". He proposed such capital structure in which the present or current value of marginal tax benefits must be equal to marginal present or current value of those bankruptcy costs.

Meckling and Jensen (1976) stated to bring the increment in ownership or increase usage of debt to lower equity base, increase the levels of percentage of equity which is owned by top management with increase in more usage of debt the more chances of bankruptcy increases that compels managers to take the benefit from the resources available to organization efficiently. Cost associated with agency can be easily reduced with the help of optimal level of debt incurred in capital structure. Agency cost theory which is driven into capital structure says that at the point of optimal capital structure the agency cost stands at minimum level. There can be various measures derived to mitigate the agency problems.

Financial managers with shares below 100% are bound to take the use of FCF (free cash flows) for the purpose of their business expansion (Grossman and Hart, 1982). FCF is controllable by increasing the

participation of managers in shares or by increasing level of debt in the capital structure of firm as discussed by Jensen (1986).

Yu (2000) examined the banking sector of Taiwan in order to study capital structure by distributing banks in three (3) according to their size categories as in medium, small, and large. He studied the bank's equity ratio and analyzed and explores the linkage between them by relating them to five (5) explanatory variables, money market funds, liquidity, bank size, profitability, and intermediation spreads. The available research depicted the indirect link between medium sized banks in comparison to Debt Ratio ratios and Debt Ratio ratios of bank sector has been found to develop direct and significant link with liquidity ratios. Finally results conclude that there is no significant link with liquidity ratios. Finally results conclude that there is no direct link exists between capital ratios to money market as the case for medium sized banks.

Research by Harris and Reviv in 1990, says companies should be at debt level if they are not disclosing information to public or its stakeholders as at what level of liquidation they are going through even if it is in favor of stakeholders of company. Similarly, Amihud and Lev in 1981 explained in order to pursue strategic level, managers must have those resources available to reduce their employment risk. Through increasing the usage of debt in business this conflict can be solved since bondholders who are the investors in bond will be the controller of firm.

According to the research of Stulz (1990), he found that in orderto be credible management will prefer to invest more in stakes if company has extra cash and if company is going through the phase where cash is limited they will prefer to invest less to reduce the cost of under or over investment, so, therefore, in same way the amount of free cash flow i.e. FCF can be reduced by increasing debt financing.

According to the research of Myers (1984), information which is available to company management which is outside from the company about the investment opportunities and income distribution of any company depicts the picture of capital structure differently. In order to predict enterprise value, existence of clash has been reported of reporting between the company management and investors concerning to real value of firm's present and future investment. It may generate positive signals when company raises debt level, suggesting that the firm has stable income and has ability to clear its periodic installments and interest payments. Higher debt available to companies proves they have higher confidence level. Furthermore, Top Management has better knowledge of the income distribution. distribution.

Another study was done and examined by the Holmes and Cassar (2003) which complied with theory of pecking order and static trade off shown the profitability , asset structure, and growth are known to be the

important factors which have affected the debt equity ratios but risks and sizes of firms has weaker influences on debt finance. These factors develop similar relationships with other countries too stated by Rajan and Zingales (1995). Although other foreign researchers have studied that many factors affect the decision in choice of debt and equity in firms in developed countries. Some of the characteristics of modern finance theory were transferable across countries including Pakistan proved by Booth et.al. (2001).

Determinants of capital structure have been explored by empirical research in many ways pertaining to countries which are developed and countries which are in the progress of development. According to the research by Wessels and Titman (1988) debt finance in linkage with firm's uniqueness is found to be negative. This may be because of the transaction

uniqueness is found to be negative. This may be because of the transaction cost which influences capital structure decisions.

Research by Cespedes et.al. (2009) concluded the companies in Latin America covering seven countries give preference to finance through equity due to higher bankruptcy cost and low taxes. Debt equity ratios relates to attributes based on country to country like protection of creditors' right, development of bond market, and rate of GDP growth. According to the study of Mahmood (2003) and Shah and Khan (2007) firms in Pakistan possess high Debt Ratio such as in textile industry. The capital markets of Pakistan which still in progress and not fully develop tend to gear the forces on companies to opt for loan from banks rather than going to raise equity. Therefore, according the research provinces which have been developed in Pakistan showed highest debt ratios. Pakistan showed highest debt ratios.

Pakistan showed highest debt ratios.

Another study by Qureshi and Azid (2006) also focuses on debt leveraging due to low concentration in corporate governance here in all over Pakistan, and conditions of commercial banks has been watched to worsen over the time period. Whereas in cement sector examined by Hijazi (2006) rejected the Static tradeoff theory and results were highly significant excluding the determinant of size of firm.Kanwar (2007) associated the attributes in determining the Capital Structure of any company's decisions. For example, the sector of Sugar in Pakistan with highly returned on assets, market to book ratio asset tangibility and size results were found to be statistically significant except the rate of tax.

According to the research of Rafiq et.al. (2008), chemical industry of Pakistan which have been preferred more equity than the financing through debt as in terms of growth and variables determining the size showed and proved the static trade off attitude posture in firms. Empirical research and theoretical framework of Rajan and Zingales (1995) found the same basis.

Hypotheses

H1 = tangibility of firm is positively related with Debt Ratio.
H2 = liquidity has significant relationship with Debt Ratio.
H3 = profitability is significantly related with Debt Ratio.
H4 = size of firm is significantly related with Debt Ratio.
H5 = dividend of firm is positively related with Debt Ratio.

H6 = cost of debt of firm has an impact on Debt Ratio.

H7 = growth of firm is significantly related with Debt Ratio. H8 = Taxability of firm have significant relationship with Debt Ratio.

Explanation of Variables.

Dependent Variable

Researcher has taken debt ratio as dependent variable.

Debt Ratio: Researcher has taken Debt Ratio as Debt Ratio. For taking the ratio, researcher has divided the total debts to total assets. Irfan Ali (2001), MM (1958)

Independent Variables

Following independent variables have been taken

Tangibility: Different researchers have done different things for measuring tangibility. Here, researcher measuring tangibility in terms of total fixed assets divided by the total assets. Titman and Wessels (1988), Rajan and Zingales (1995), Shah and Hijazi (2004), Jensen and Meckling (1976)

Liquidity: There are several methods and formulae to find out the liquidity of a company. Different researchers have followed different ways. I

will divide the current assets to current liabilities in order to get the value of liquidity. Cassar and Holmes (2003).

Profitability: There are different methods for determining the profitability of a company. Here, I am dividing the net profit to the total assets to get value. Titman and Wessels (1988),) Cespedes et al. (2010), Rajan and Zingales (1995), Shah and Hijazi (2005)

Size: Size of a company can be measured through different ways. It depends on different factors. Some of them are the number of employees, amount of sales, etc. But most of the researchers had made the Logarithm of sales as part of the research. I am observing all the companies' sales amount and then take the log of them to obtain the value. Rafiq et al. (2007), Amjad (2011), Awan (2011)

Dividend: It is the amount of profit or a part of it, which is payable or distributed among the owners (share holders). Mostly used proxy for determining the dividend payout ratio is its formula which is dividend amount divided by net profit. Irfan Ali (2001), Sheikh and Wang (2011), Cassar and Holmes (2003), MM (1958)

Cost of Debt: it is defined as cost for calling or raising the debt. We have to pay the interest for getting the debts or loan money. So it is in high consideration because we often alter the capital structure of a company and it is an important variable for determining it. Here I am using the interest amount divided by the debt (long term) to measure the cost of debt as it is the frequently used proxy. Sheikh and Wang (2011), Cassar and Holmes (2003), MM (1958)

Growth: A company can grow in different directions. A company can grow with different perspectives. One can grow their sales, profits (revenues), fixed assets, total assets, plants, operations, employees, land, etc. so, there are so many methods and ways to measure the growth of a company. Researchers in their researches prefer the percentage change in total assets. Khan and Shah (2007), Irfan Ali (2001), Sheikh and Wang (2011). Named at al. (2010). Helmograph Grove (2002). Performed the

(2011), Naveed et al. (2010), Holmes and Cassar(2003), Rafiq et al.

Tax: It is the value which is payable to the government in the year (period) end of a company. So it is one of the important variables of capital structure. Proxy is used for the measure of this variable is tax amount divided by the gross profit. Afza and Hussain (2011), MM (1963).

Research methodology

Research methodology

This chapter of research will discuss the methodology which leads to the explanation of research design, source of the data and its method for analysis. It willfurther describe the theoretical framework and the research model. This is an explanatory research (based on only quantitative data) because several researches have been done on this topic, and researcher is doing it to find a relationship in between dependent and independent variables of capital structure. Researcher has design the research in a way that it takes 18 KSE listed companies of Cement Sector, and has taken required financial data of 5 years from 2009-2013. It explains the relationship between the dependent and independent variables. The data has been collected from the Financials of companies' Annual reports. The collected data, then been analyzed by the E-View software. data, then been analyzed by the E-View software.

Regression model

This study is analyzed by pooled data as it contained the data of 18 companies of the same industry and data is analyzed for the same period. The model is below:

LNDR= β 0 + β 1 (LNPRF) + β 2 (LNLIQ) + β 3 (LNSZ) + β 4 (LNTAN) + β 5 (DV) + β 6 (GRO) + β 7 (COD) + β 8 (TAX) + ϵ

 $\beta 0$ = is the constant term and β is the coefficient of variable

DR = Debt ratio

PRF = Profitability

LIQ = Liquidity

SZ = Size

TAN = Tangibility

DV = Dividend

GRO = Growth

COD = Cost Of Debt

REGRESSION ANALYSIS

Introduction

For the regression analysis, data of 18 companies has been taken and analyzed by using panel data. The result is drawn to check the relationship of independent variables with the dependent variables.

Descriptive statistics

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	1.488641	3.076667	0.483848	0.6314
LNPRF	-0.574142	0.177055	3.242727	0.0026
LNLIQ	-0.422179	0.211302	-1.997989	0.0033
LNSZ	-0.065263	0.154390	-0.422718	0.6750
LNTAN	-1.206362	1.294582	-0.931855	0.3576
DV	-0.462841	1.097469	-0.421735	0.6757
GRO	2.47E-10	2.35E-10	1.053050	0.0093
COD	-0.007257	0.004277	-1.696706	0.0084
TAX	0.042769	0.021164	2.020802	0.0500
R-squared	0.880683	Mean dependent var		-0.488370
Adjusted R-squared	0.866391	S.D. dependent var		1.601942
S.E. of regression	1.213263	Akaike info criterion		3.401360
Sum squared resid	52.99223	Schwarz criterion		3.762692
Log likelihood	-67.53060	Hannan-Quinn criter.		3.536061
F-statistic	5.088407	Durbin-Watson stat		0.969612
Prob(F-statistic)	0.000280			

Results obtained from the analysis shows that the profitability is statistically significant and negatively related with debt ratio. Liquidity is statistically significant and negatively related with debt ratio. Tax is statistically significant and positively related with debt ratio. The variables size, tangibility, dividend and COD are statistically insignificant with debt ratio. Growth is statistically insignificant and positively with debt ratio. R-Square is 0.5307 which indicates that researcher regression model explains 53% of the variance. The model is significant at 5% level of significance.

DR = 1.488641 -0.574142 (PRF) -0.422179 (LIQ) -0.065263 (SZ) -1.206362 (TAN) + -0.462841 (DV) + 2.47E-10 (GRO) -0.007257 (COD) + 0.042769 (TAX) + ϵ

Discussion

The findings of result show that profitability is statistically significant and negatively related with debt ratio, which signaling that profitability of a firm has significant impact on debt ratio. Khan and Shah (2007) also concluded that profitability of a company has a significant impact but negatively related with debt ratio which means lower the profitability will demand the external funds to finance the new projects and the expansion of the firm.

Liquidity shows significant impact on debt ratio and is negatively related. Amjad (2011) has also find out a significant impact and a negative relation with the debt ratio which tells higher the liquidity of a firm will result in lower debt ratio. Size is statistically insignificant for the cement sector which shows that size of a firm does not have a significant impact on debt ratio. Wessels (1988) also conclude the same result. Tangibility of the cement sector is not statistically significant with the debt ratio . Dividend payout ratio is statistically insignificant with debt ratio, Growth in results has statistically significant with the debt ratio and has positive relationship with the debt ratio. Cost of debt in the results shows that it is statistically significant and has negative relationship with the debt ratio. Its impact is significant with the debt ratio. Cassar (2003), Wang (2011) and MM (1958) also suggest a negative relationship of cost of debt with debt ratio which indicates that higher the cost of debt lower would be the debt ratio. If the cost for raising funds for the firms would higher then company would not raise the funds from outside resources. They might go to shareholders or to utilize the earnings for further requirements of funds. Taxability of the cement sector in the result shows a positive relationship with debt ratio and it is statistically significant. Altman (1984) also find out the same positive relationship of taxability with the debt ratio.

Conclusion, Recommendations and Directions Conclusion

The conduction of this study is to find out the determinants of capital structure and their impacts on debt ratio. For this, data has been taken for of 5 years from 2009 to 2013 from 18 cement companies of Pakistan out of 22, registered in KSE and analyzed by panel data. Eight independent variables have been extracted i.e. tangibility, taxability, liquidity, growth, dividend, profitability, size and cost of debt. One dependent variable is Debt Ratio. To find out the correlation between dependent and independent variables,

regression model has been chosen. The independent variables including liquidity, profitability and COD have a significant impact and negatively related with debt ratio, that means if these variables increase debt ratio will go down. Other variable incluyding tax and growth also has significant impact and a positive relationship that means if these two variables increase, debt ratio will decrease. The remaining three variables size tangibility and dividend has no significant impact on debt ratio that means there would be no impact of any change occurs in these variables on debt ratio. In short hypothesis one, four and five are rejected.

Recommendations

It is highly recommended that finance manager should have keep a deep look in the financials of the company. They should exercise an optimal capital structure of the company as they are the public companies, and as to maximize the shareholders' wealth. Managers should keep the debt structure to the lowest level to maximize the ultimate profits. It is also necessary for the cement sector to obtain the loan as projects and expansion needs a higher commitment of funds. To increase the profitability and liquidity of the company, manager should not go for raising funds as they have the periodical payments of interest and principal amount

Direction for further Research

The basic requirement of cement industry is heavy machineries for its productions and larger number of funds. Pakistan is going through number of uncertainties, so there could be a change in outcomes as one go for different industries within and outside the Pakistan territory. Industry specific research should be done as to facilitate the managers in finding the optimal capital structure for the company operating in a specific industry.

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