Determinants of capital structure: An empirical study of Cement industry of Pakistan

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Abstract
Capital structure is the mixture of debt financing and equity financing. Its choice and determinants related to many different factors. This paper endeavors to answer the very questions of what determines the capital structure of Pakistani listed cement companies. This paper presents several traditional theories discussed on capital structure, such as trade-off theory, agency cost theory and theory of pecking-order. The data of 20 companies for three financial years 2007, 2008, 2009 is taken. The study shows that except size, all other variables have significant relationship with leverage and can be used for making decisions by companies in cement industry. The correlation analysis is used to measure the effects of different variables on the leverage & so finding out the determinants of the capital structure in cement industry. The study helps the management in decision making while setting their leverage ratio, as they will be able to know that up to what extent profitability, growth & tangibility will be affected by decrease or increase in leverage.

Keywords: Capital structure, Pecking-order theory, Agency costs, Tangibility, Growth opportunity

Introduction
Pakistan is rich in the deposits of limestone, clay & gypsum, which constitute basic raw material for manufacturing cement. Although a large number of cement varieties are produced in different countries of the world, Pakistan has been producing following types of cements: ordinary portland Cement, portland B.F slag cement, sulphate resisting cement and white cement. Out of a total of 24 cement plants, currently 22 units are operative, these 22 companies being listed on Karachi Stock Exchange. The country, at present, has an installed capacity of producing 17.55 million tones of cement per annum, mainly Portland cement, it is envisaged to increase installed capacity to 28.21 million tones per annum by 2009. In two to three years six new projects with a 7.3 million tones capacity, which are at different stages of completion, will come up in 2012. Pakistan is fortunately which in the deposits of limestone, clay & gypsum, which constitute basic raw material for manufacturing cement. In spite of having abundant raw materials & raising growth in growth of cement, only five cement factories were established during the initial thirty years of independence, with aggregate capacity of 3.2 million tones. Consequently, Pakistan had to import cement for a long period, which reached to a level of 1.3 million tones in the year 1981-82. Import of cement continued from 1971 to 1985. Its scarcity also hampered the development process in the country. Although cement constitutes one of the basic necessities of shelter, yet in Pakistan taxation of cement is the highest in the region. In India excise duty is being charged @ Rs. 350 / = per ton where as in Pakistan is charged @ Rs. 1000 / = per ton. Sales tax on cement in India is 10 % whereas in Pakistan it is 15 %. The companies operating in
NWFP are exempt from sales tax for the period up to June 2001. This has disturbed level playing field & has triggered a price war amongst cement companies. It appears from the following table that in Pakistan, taxes on cement are up to 300% higher than other neighboring countries. Capital structure refers to the different combinations used by firm between debt & equity in financing its assets. A firm uses different level of mixes between debt & equity for financing its assets. Capital structure could be found by combining bonds, term finance certificates, bank loans, lease finance etc along with various other options in a mix with equity, in an effort to maximize the shareholders wealth. For achieving the ultimate motive i.e. maximization of shareholders wealth, firms use different combinations of capital structure because a structure which holds true for one may not prove to be the best for the rest. This has explored new areas for discussion which eventually lead to different capital structure theories in an attempt to describe the variations, which occurred because of different type of industries, operating in different times across the globe. Moreover, practical evidences sometime fail to recommend a particular capital structure theory in a given scenario. This paper endeavors to answer the very questions of what determines the capital structure of Pakistani listed cement companies. This study is important as cement industry is a capital-intensive industry but it doesn’t not need much innovation except quality improvement. Still then why different firms use different combinations of debt & equity?

Objectives of the study

Capital structure of the organization could be directly relating to some variables. Capital structure of the firms operating in the Cement Industry could vary because of the demand & supply power of each company. There exist different variables that determine that how company should select its capital structure. The objective of this study is to analyze the different factors in cement industry of Pakistan & their effect of on leverage of company, in order to analyze determine its capital structure. The dependent variable is Leverage and Independent variables of study are: Profitability, Growth, Size, Tangibility of assets.

Hypotheses

Assumed hypothesis regarding variables are:

Hypothesis 1:
The pecking order theory states that the firm will use internally generated funds first & then go for external financing. This implies that profitable firms will have less level of leverage as they can use their profit for reinvestment: Firm with high leverage will have lesser profitability.

Hypothesis 2:
There is lot of controversy between growth rate & leverage. As the pecking order hypothesis states that a firm will use its internally generated funds for meeting its investment requirements, which does not look sufficient for a growing firms, as it has to under take several new projects for cashing the new opportunities. The second option is to use debt for financing its projects which will lead to high level of leverage.

On the other hand, agency costs for growing firms are higher as the company has increased pool of resources & managers can use these for their own pursuits by investing in risky projects. This thing will push the debt holders to envisage that their investment is at stake & for hedging their investment, they will demand high rate of interest against the lent amount which will in turn restricts the growing company to take more debt because if the keep on doing so, there is possibility that they will fall in the financial distress trap. Hence, growing firms will use less debt & more equity. So we expect that:

Firm with higher leverage will have low growth rate.
Hypothesis 3:

Firms with large tangible asset base can generate funds at a lesser cost because they can provide their assets as security. So it is assumed that firm with high tangible asset base will borrow more compared to the firm with low tangible base assets. Thus we expect a positive relation between tangibility of assets & financial leverage:

A firm with higher percentage of fixed assets will have higher debt ratio.

Hypothesis 4:

While deciding the size & leverage relationship of the firms there are two viewpoints. First large firms don’t consider the direct bankruptcy costs as an active variable in deciding the level of the leverage, as these costs are fixed by statute & also these costs are of small proportion to the total firm’s value. Moreover the large firms are more diversified so the chance for bankruptcy is smaller.

Second that asymmetrical information about larger firms reduces the chances of under valuation of the new equity issue, which encourage the large firm to use equity financing. This means that there is a negative relation between size & leverage of the firm. So the 4th hypothesis is:

Review of literature

In this section glimpse of the pioneering work by Modigliani & Miller (1958) on capital structure, the Trade-off theory which discusses the trade off between debt advantages against debt costs, Jensen & Meckling (1976) Agency Cost theory, & Pecking order Theory by Myers has been studied. Theory of cost of capital structure suggests that the market value of a firm is determined by its earning power & the risk of its underlying assets & is independent of the way it chooses to finance its assets. They argue that there would be arbitrage opportunity in the perfect capital market if the value of firm depends on its capital structure. Further more, they said that there is no opportunity cost; mean investor can neutralize any capital structure decision of the firm, if the both firm & investor can borrow at the same rate of interest. This theory was based upon many unrealistic assumptions, for instance, no transaction cost, perfect capital market etc which does not hold any reality, yet it provides the basic theoretical background for further research on capital structure, as Miller (1977) highlight the limitations of his & Modigliani’s argument by additionally considering the affect of personal taxation.

While The trade-off theory talk about the influence on optimal capital structure by taxes, cost of financial distress & agency costs. The trade off theory further states that optimal capital structure is obtained where the net tax advantage of debt financing balances the leverage related costs such as bankruptcy. Interest, being a tax deductible expense decreases the tax liability & increases the level cash on the firm’s disposal. Secondly, firms with levered capital have greater earning power per share which is a tool for measuring firms’ worth. So if the tax rate is higher, firms will try to go for maximum debt financing to avail these opportunities. Hence, tax rate & leverage has
positive relationship. Firms trying to avail too many benefits fall in fallacy trap which sailed the company beyond the optimal point of capital structure that pushes the company in deep water; increases the default risk of company. If the firm defaults on the payment of loans, the control of firm will no longer be with the shareholders & it will b shifted to the creditors of the business & they will try to extract their investment by the process of bankruptcy. There are two types of bankruptcy costs a business may experience while going through financial turmoil. First is the administrative cost of bankruptcy which is small for large firms & vice versa. Second is the indirect cost which a business may face when it is facing financial distress which include; the firm may change its investment policies, creditors will demand a higher rate of interest, firm will not look for new projects, it will cut down its research & management costs, it will also shrink its expenditure on training of employees etc. Customers on the other hand will doubt the firms’ ability to maintain the same level of quality & this will dilute the clientele of the business which means drop in sales & ultimately in the market share. This implied that the potential benefits of leverage are shadowed by the potential costs of bankruptcy. (Correia et al 2000). The classic agency theory concept was developed by Berle & Means. They observed that ownership & control had become separated in larger corporations as a result of the dilution in equity positions between the managers & the owners. (Berle & Means, 1932). Jensen & Meckling identifies the possible conflict between shareholders & managers interest for the same reason. Furthermore, managers try to maximize shareholders wealth by taking loans from the bond holders and invest in risky projects. Now, managers are supposed to preserve the stakes of all the stakeholders without making anyone worse off. The managers’ role has many repercussions regarding capital structure decision making apart from making the investment decisions. (Jensen & Meckling, 1976).

**The free cash flow hypothesis**

Free cash flow is the amount of funds left with the company after deducting all investment decisions from the operational cash flow. The free cash flow hypothesis says that managers as they don’t have cent per cent stake in the companies’ affairs misuse the available funds on hand by investing in risky projects with little yields. Jensen suggested that this problem can be resolved by increasing the stake of the managers in the business or by changing the capital structure leaving little free cash available to the managers to engage in their own pursuits. (Jensen 1986, Slutz 1990). The bottom line is, increase in debt financing will leave little free cash flows with the managers and this is considered to be the benefit of debt financing.

**Overinvestment and underinvestment Problem**

The bondholder expropriation hypothesis says that shareholders try to take benefit at the cost of the bondholders. For instance, if investment yields high returns, the extra benefit because of leverage is enjoyed by the shareholder and in case of loss of bondholders need to sustain it. So, bondholders share extra risk for no reward. Being the agents of the shareholders managers invest in projects which are risky and also they yield low returns. This phenomenon is termed as “overinvestment problem” and the losses sustained by the shareholders because of the leverage incentive are termed as “asset substitution effect”. On the other hand, the under investment problem refers towards managers tendency to avoid safe net present value projects in which the value of equity may decrease a little and probably the increase in the value of debt may b high. This happens because management thinks that it is there to serve the shareholders alone and while doing so they overlook the interest of other stakeholders, or we can say that despite of maximizing the over all value of the firm they just try
to increase the stake of the equity holders. (Myers & Majluf, 1984). Optimal capital structure could be reached by trading off between agency costs of debt against the benefits a business yields from debt. (Jenson & Meckling, 1976). Agency problem can be solved by increasing the stake of the management in the business or by changing the percentage of equity & debt in capital structure. (Slutz, 1990)

Information Costs and Signaling Effects
Capital structure of firms could also be expressed by the difference in level of information possessed by the outsiders about the investment opportunities & distribution of income of the firm. Information asymmetry may result in two different outcomes for capital structure. The first is the signaling effect. It says that managers have better knowledge about the income distribution of the firm & the time they issue the debt, gives a signal to the market that the firm is in good shape & has the capacity to pay-off its creditors. On the other hand investors don’t felt bothered to enjoy fix streams of income. This thing gives signal to the market that the management is confident about the firm’s smooth income distribution. So, firms use high level of debt for increasing the value of equity in their capital structure. (Ross, 1977)

The second effect is the opposite of the first. It says that investors generally perceive that managers use their own information for issuing the risky securities. This perception of the investors leads to under pricing of the new issue of equity. So management needs to be careful while issuing risky securities because some time the reaction from the investors are so severe that it dilutes the wealth of the existing stockholders by means of decrease in the market price of the share. Because of this very reason, firms avoid to issue equity for financing new projects. And if they need so, they will first try to meet their requirement of financing from retained earnings, if further financing is required; they will issue debt and when there is no way out, will issue equity. (Myers & Majluf, 1984). This has been termed as the Pecking Order Theory. It states the same thing that new issue will not help the stake of the existing shareholders as it will decrease the price of the outstanding shares. (Krasker, 1986). Shah A. & Hijazi also worked on the determinants of capital structure of stock exchange listed non financial firms in Pakistan. They have selected a sample of 445 firms in non financial sector industries listed on Karachi stock exchange from 1997 to 2001. They’ve taken tangibility, growth, profitability & size as independent variables to see their impact on the dependent variable, leverage. They found size, growth & profitability statistically significant for their selected sample. (Shah A. & Hijazi, 2005). Rajan and Zingales also worked on the determinants of capital structure. They have taken the data from G-7 countries including US, Japan, Germany, France, Italy, UK & Canada. They have also selected the sample from non financial firms. They have also used tangibility, market to book value which shows growth, profitability & size as independent variable to see their impact on the dependent variable leverage. They find all four independent variables significant at different level of significance i.e.; 1%, 5 % and at 10%. (Rajan and Zingales, 1995)

Data Description
Population:

All cement companies incorporated in Pakistan.

Sample
Twenty cement companies on the basis of availability of data are selected, that are: Al Abbas Cement Limit, Attock Cement Limited, Bestway Cement Limited, Cherat D.G Khan Cement

**Explanation of variables**

Leverage is measured as: Leverage = Total Debt / Total Assets

While deciding appropriate measure to calculate leverage is to take total debt or long term debt as a percentage of total assets. Capital structure theories consider long term debt as proxy for financial leverage but we use total debt as a proxy of financial leverage as here in Pakistan, firms have mostly short term financing and also the average size of firms are small. Profitability is measured as: Profitability = EBT / Total Assets Where; EBT stands for Earning before tax. Profitability measures that how well a company is performing by analyzing how much profit was earned. I have calculated profitability by dividing EBT by Total Assets. This will show that how much return company can get on the basis of its assets, before paying the tax. Measure of Growth: Growth is measured as: Growth = %age increase (decrease) in total assets Growth in assets shows that how much the firm has grown in comparison with last financial year. Measure of Tangibility:

Tangibility is measure as: Tangibility = Gross Fixed Assets/ Fixed Assets Tangibility is measured as ratio of gross fixed assets divided by total assets. I did this because different firms are using different depreciation methods and this could cause asymmetry in results and the second thing is a firm can pledge an asset even when its book value is zero or it is fully depreciated. While calculating tangibility of assets this was the resultant occur more than one in some cases which suggest that total gross fixed assets was more that total assets. Measure of Size: Size is measured as: Size = Natural Log of sales It shows the total volume of sales in specified financial year.

**Methodology**

The data is gathered from the State Bank of Pakistan publication “Balance Sheet Analysis of Joint Stock Companies Listed at Karachi Stock Exchange from State Bank of Pakistan’s website. Three years data is calculated for 20 firms & so it will have 60 firm years. The Correlation Matrix is used to determine the values of correlation between variables & their respective relationships (Negative or positive). Along with Correlation Matrix, Ratio Analysis is also used to determine the variables of each year. P-value Analysis is used to determine the significance of results. It shows that either the results can be used for whole population for decision making or not. If P-value is more than 0.5 it means that results are significant and can be used for decision making. And variables having p-value of less than 0.5 will not be providing with significant results for population. The sign of correlation values will be seen to analyze that either the relation of variables is positive or negative.

**Data Finding and analysis**

It includes the calculations, findings, and analysis of data used for study. On the basis of these findings we either accept or reject the hypothesis assumed in chapter no. 1. And their significance is found. If the results are significant then this analysis can further be used for decision making by companies in industry from which the sample is taken. In data collection, the values of one dependent variable i.e. leverage is calculated & four ratios are taken as four
independent variables. The formulas used for calculating values of these variables for three years, 2007-2009, are

1. Leverage = Total Debt/ Total Assets
2. Profitability = EBT/ Total Assets
3. Growth = Percentage Change in Total Assets (of years under study)
4. Tangibility = Gross Fixed Assets/ Total Assets

After calculating all the values the mean, median, mode and standard deviation of all variables is also summarized in a table.

The three year descriptive statistics of these calculations is as under:

<table>
<thead>
<tr>
<th>Table: 4.1</th>
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<tbody>
<tr>
<td>Three year summary of Descriptive Statistics</td>
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<tr>
<td>Leverage</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Mode</td>
</tr>
<tr>
<td>Std. Dev</td>
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</tbody>
</table>

Note: (The values of the profitability and growth were taken as %age, size as logarithm and ratio analysis was used for Leverage and Tangibility) For analysis of data calculated, I have used Correlation Matrix and to find the significance of data, I have used P-Value of variables.

<table>
<thead>
<tr>
<th>Table: 4.2</th>
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<tbody>
<tr>
<td>Leverage</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Leverage</td>
</tr>
<tr>
<td>Profitability</td>
</tr>
<tr>
<td>Growth</td>
</tr>
<tr>
<td>Tangibility</td>
</tr>
<tr>
<td>Size</td>
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</tbody>
</table>

From the correlation matrix one can easily identify the relationship between dependent variable (Leverage) and independent variables. Also the matrix shows the relationship between all the independent variables respectively. Through the study conducted, I have come to know that
leverage and profitability has Negative relation in case of cement industry. The correlation value between leverage and profitability is -0.56071. It means that if the leverage i.e. debt to equity ratio (on average in whole industry) is increased by 1 point; the profitability ratio will decrease by 0.56071 points. It means that an increase in the debt of the company will decrease its profitability. So company should be very careful while deciding debt/ equity ratio. Growth was taken as the %age increase in total assets of the company. An analysis of the study shows that the growth and leverage also have Negative relation. The correlation value shows that if leverage ratio is increased by point 1, its ultimate effect will be shown on the growth as decrease by – 0.02059 (almost 2%). The 2% seems very less decrease but it should be kept in mind that these companies have business of hundred of millions, and so only 2% decrease can become a reason of great loss in net income.

So an increase in debt value of the company means that total assets are decreased hence the growth rate is affected negatively. Another relationship that comes on surface after analysis is the relationship between Leverage & Tangibility. The correlation matrix shows that leverage and tangibility have Positive correlation. The correlation value is 0.001416. It means that an increase in leverage by 1 point will lead the tangibility of assets to increase by 0.001416 points. The reason is simple that increase in leverage (assets/equity) means that assets are increases and when assets are increased simply it shows that their tangibility is increased. So on average in cement industry, the increase in leverage increases the tangibility of assets.

The relationship between leverage and size is found as Negative. The co-linearity between these two variables is – 0.33121. It means that increase in leverage by 1 point will decrease the size (taken as log of sales). So it shows that increase in leverage will decrease the sales of company in cement industry (on average). The possible reason for decrease in volume is that increase in leverage means that either debt is increased or the assets are decreased. If debts are more, the company is liable to pay more amounts of fixed charges (as interest for debt) hence low share for equity holders. In both cases, the customers/clients will be hesitant to deal with such firm (having low assets & high debts). So ultimately sales of this company will decrease.

**Significance of Results**

To find out that how significant the results are; the P-value of the independent variables is analyzed. It obtains significance level for a statistical test. A p-value shows the probability that sample data do or do not adequately represent the population from which they were drawn.

**Criteria**

The P-value of specific variable should be more than 0.5 (with sign +ive or -ive) for its related results to be significant. If P-value is less then 0.5 it means that results of that variable are not significant. The P-value and standard errors of above mentioned dependent and independent variables are:

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>ERROR</th>
<th>P-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (L)</td>
<td>0.147672</td>
<td>8.09E-07</td>
</tr>
<tr>
<td>P</td>
<td>0.001681</td>
<td>4.77E-05</td>
</tr>
<tr>
<td>G</td>
<td>0.041187</td>
<td>0.923444</td>
</tr>
<tr>
<td>T</td>
<td>0.064975</td>
<td>0.612674</td>
</tr>
<tr>
<td>S</td>
<td>0.039953</td>
<td>0.113345</td>
</tr>
</tbody>
</table>
From this table we can see that P-value of Intercept (Leverage), profitability, growth & tangibility are more than 0.5 while the P-value of Size is less than 0.5. So this shows that correlation results of profitability, growth and tangibility are significant and can be used for decision making by companies. While the P-value of independent variable, Size, is less than 0.5, so it shows that the results drawn through studies regarding relationship/correlation between Leverage and size are not significant and companies would not be getting the same results shown as result of study. Along with the relationship b/w independent and dependent variables I have come to know about some other interesting relationships between variables.

**Relationship of Profitability with Growth, Tangibility and Size**

Through the correlation matrix, we can also find out the relationship between above mentioned variables. The study has shown that increase in Growth (%age increase (decrease) in assets), Tangibility (of assets) and Size (sales) all have positive relationship with profitability. Individually it means that if there is %age increase in assets in comparison with last year then it means that profitability of company will also increase. Similarly, increase in tangibility of assets will increase the profitability of ratio and in last but not least, an increase in sales also shows positive trend in profitability of company in cement sector but again the P-value of these variables indicate that only the relationship of profitability with growth and tangibility are significant and can be used for decision making but the relationship pf size and profitability are not significant and so it cannot be accurate base for decision making.

**Relationship of Growth with Tangibility and Size**

The relationship of Growth with tangibility and size both are negative. It shows that an increase in growth doesn’t ensure that tangibility of assets is also increasing and similarly increase in tangibility of assets doesn’t mean that assets are also growing. While talking about growth and size, it shows that growth and size also have negative relation. An increase in size of sales may decrease the growth of company and an increase in growth of firm may not be the reason of increase in sales of company. But when talking about the significance of results, only the relation of Growth and Tangibility can be used for decision making while the results of relation between tangibility of assets and size are not significant.

**Relationship of Tangibility and Size**

This relationship of Size and Tangibility is positive. It means that an increase in tangibility of assets will increase the sale of the company. But as P-value of variable size is less than 0.5 so this effect of variables cannot be uses for decision making.

**Acceptance/Rejection of Hypothesis**

On the basis of the above discussed results, I have come to know that all assumed hypothesis are accepted. Because all relationships between variables are same assumed before calculating and analyzing data. A brief description of results of assumed hypothesis and the results after analysis can be shown with help of these two tables.
Table: 4.3
Potential Determinants of Capital Structure, Their Measures & Expected Relationship with Leverage

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Measure Proxy</th>
<th>Assumed effect on Leverage (Hypothesis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>Total Gross Fixed Assets/Total Assets</td>
<td>Positive</td>
</tr>
<tr>
<td>Size</td>
<td>Log of Sales</td>
<td>Negative</td>
</tr>
<tr>
<td>Growth</td>
<td>Annual Percentage Change in Total Assets</td>
<td>Negative</td>
</tr>
<tr>
<td>Profitability</td>
<td>EBT/ Total Assets</td>
<td>Negative</td>
</tr>
</tbody>
</table>

The above table shows the determinants, the formulas used to calculate their determinants and their expected effects on leverage i.e. assumed hypothesis.

Table: 4.4
Potential Determinants of Capital Structure, Their Measures & Relationship with Leverage after Analysis

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Measure Proxy</th>
<th>Effect on Leverage</th>
<th>Significance of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>Total Gross Fixed Assets/Total Assets</td>
<td>Positive</td>
<td>Significant</td>
</tr>
<tr>
<td>Size</td>
<td>Log of Sales</td>
<td>Negative</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Growth</td>
<td>Annual Percentage Change in Total Assets</td>
<td>Negative</td>
<td>Significant</td>
</tr>
<tr>
<td>Profitability</td>
<td>EBT/ Total Assets</td>
<td>Negative</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table shows the potential determinants of leverage, their formulas, their affects on leverage after analysis and the significance of these results. The significance shows that either these results can be used for making decisions by decision makers and have the same results for the population (Majority) from which sample is taken. The study shows that except size, all other variables have significant relationship with leverage and can be used for making decisions by companies in cement industry.

Conclusion
In this paper the correlation analysis is used to measure the effects of different variables on the leverage & so finding out the determinants of the capital structure in cement industry. Total debt divided by total assets has been used as proxy for leverage. Four independent variables were uses as determinants of capital structure for measuring their impact on leverage. While analyzing the
data, it was found that leverage is positively correlated with tangibility & negatively correlated with other three variables i.e. size, profitability & growth. However the relationship between size & leverage was not found as significant. The relationship of leverage with profitability, tangibility & growth were significant. As this study is conducted by taking 20 companies as sample out of 22 operating cement companies in Pakistan, so significant data is said to be highly accurate as large sample size ensures the high data accuracy. Along with relationship between independent and independent variables, some other interesting relationships between other variables have also been found. (That if and independent variable will be taken as independent variable then how it will get effected by other variables). This study will help the management in decision making while setting their leverage ratio, as they will be able to know that up to what extent profitability, growth & tangibility will be affected by decrease or increase in leverage. Similarly, investors can make decisions regarding investments that what are the future prospects of the company, if it is increasing or decreasing its debts. However, the limitation of the analysis is that it focuses on individual ratio (determinant) & interprets the meaning & significance of each determinant in isolation from others. Being unvaried in nature, it only provides a partial view of the situation & not the holistic one, reducing its value only to experts & not the general investor. The similar analysis could be carried out for different industries to find the most important financial ratios for different industries.
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