# Impact of Debt on Financial Performance of Cement industries in Karachi

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### Abstract

The research is about an evaluation of financial performance of cement companies of Karachi through debt financing. The research comprises of listed companies in the Pakistan stock exchange, from year 2010 to 2017. The data when analyzed statistically reveals that the firms have an impact on firm level variables. The keywords used in this paper is financial performance and debt. Cement companies of Karachi include Lucky Cement Ltd, Power Cement Ltd, Attock Cement Ltd, Deewan Cement Ltd, Thatta Cement Ltd &Cherat Cement Ltd. Variables study in this research are independent variables and dependent variable. Short term debt, Long term debt & Total debt are the independent variables whereas Debt to Asset or Debt to Equity is the dependent variable of this research. The technique use in this research is regression. It shows that debt has a significant negative relationship with firm performance.

Keywords: capital structure, financial performance, Trade off theory,

## Introduction

The capital structure is the sum total of the outstanding long-term effects and securities of debt and capital". The capital finance structure where firms finance its assets through their equities, debts, and hybrid securities (Saad 2010). A hybrid security is the term used to describe securities that combination of debt and equity securities. A combination of different financial sources is called each company's capital structure (Ghalibafasl,

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2005) cited by Pouraghajan et al. (2012). Equity refers to the firm shares capital where company issue shares into the market where investors purchased these shares and become stockholders of the company. Shares are the two types. Outstanding shares also known as Common Shares and another is Preferred Shares. Another source of financing is Debts. Short term debts are a part of debt, which has maturity period of one year or less, and recorded as a current liability in a firm's balance sheet. While long-term debt is a liability with the term or maturity period of more than one year such as bonds (Scherr and Hulburt, 2011). The importance of debt is very useful in companies' capital structure. For institutions, the decision to repair debt in the capital structure is important. The shell minimizes these clothes as well as to help the organizations first. Capital structures emphasize the importance and importance of debt financing in organizations. Debts are cost savings and it also reduces the risk of owners, but when the organization is unable to use it efficiently, it becomes very expensive. Organizations must pay financial fees on the loan If the company fails to use its debt effectively, then they will suffer from many issues. Companies who prefer to use the loan in profitability because it reduces the risks and cost savings of the shareholders of the organizations. Loans affect profitability, which have direct impact on performance, capital structure, stock price, shareholder's property and all stakeholders. Various researchers, Mayer, et al (1986), explained the business theory and discussed the cost and benefits of the loan better. Capital structure is essential for achieving success and increasing financial performance of organizations. However innumerable theories and empirical researches about debt financing have emerged, but it still does not exist as a unified theory (Terra, 2001). Moreover, previous study in the area of debt financing has been mainly focusing on investigating firms in developed countries, many of them about firms in United States of America. Analysis of firms in developing regions is not a mainstream; therefore, the study aimed to explore more on existing research and improve on decision-making in corporate finance, Moro (2009). The study developed on neoteric advances in the corporate capital structure literature on the role of the term structure of liabilities, by also establishing the relationship between the debt financing and firm's performance. The research is all about evaluating the impact of

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debt on financial performance in cement industry in Karachi. Debt have no taxes to pay off but the interest rate is very much high in debt financing. Previous research studies Baum et al (2010), have found debt having positive, negative and both effects on the financial performance of firms. The research gap was discovered on the fact that previous studies, Baum et al (2010), have been focused on looking for the capital structure and not on debt financing. The study concluded that companies with less long term debt in their financial structure have better growth opportunities. The management of most firms considers debt issues in their decisional process and their strains in maximizing their firm'svalue and performance and thereby contributing to maximization of shareholder's equity and they are considering on debt effect on financial performances(Basil and Najjar, 2018). In debt financing the companies reduces their taxes and makes funds in debt financing but they did not focus on the interest payables because the interest is very much high or doubled in debt financing, which means doubled in the interest rate effect in the financial performance of the cement sector (Ramakrishnan. et al, 2016). The conclusion of this study will also provide adequate information to cement industries and entrepreneurs with the necessary tools on how to plan for financing the businesses and make informed decisions for investment in cement industries in Karachi.

## **Research Question**

To check the impact of debt on financial performance of cement industries in Pakistan?

# Literature Review

Van Horne and Wachowicz (2010) characterized that the equity structure is the blend of normal, debt and reference stock value in which a present to association's consistent long-term financing.

Debt is the assets taken from other than the investors of the organization. Debts are the liabilities of the organizations in light of the fact that these are the amount obtained from others (Merton, Robert, 2010). Debts diminish the danger of the investors in light of the fact that this is the amount, which is not investment of the proprietors. Debts are the amounts, which can be asserted by other than the investors of the

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associations. Debts are the amounts acquired by the associations from others, which they need to pay with monetary charges like interest on their borrowing and for utilizing that amount. Accordingto Ramakrishna. et al, (2016) Debt means liabilities created from banks, which borrowed by administration of the organization, and it can be figured by dividing complete liabilities to add up to investors' equity. Firms should utilize their borrowed amount/sums productively and successfully because generally firms can go in big loss like bankruptcy. The utilization of obligation productively is each time valuable for the organizations on the grounds that the measure of premium is exempted from impose however in the event that organizations can't utilize the obligations proficiently than it is extremely hazardous for them and it will build/increase the chances of bankruptcy of the organizations. Total debts, short-term debts and long-term debts both influence the financial efficiency of the cement industries in Karachi. Short-term debts are the current liabilities for the firm where they have to use and return within in one year of period. Long-term debts are recognized in the Company's balance sheet as noncurrent liabilities, which are used for more than one year, during which long-term loans or interest rates are higher than short-term debt. . No Short and long-term loans are reimbursable with interest (Deanjello and Masulis, 2012). The creditors always prefer to finance these stable companies and have a good performance in the market and obtain better knowledge about the entire market. Beneficial companies provide shortterm loans, long-term loans and windfalls. There is a well-built relationship between debt and leverage of companies. Productivity and profitability of the organizations is measure by the return on their investment. Profit of the organizations can be measure through various strategies. Return on Assets (ROA) and Return on Equity (ROE) are utilized regularly to quantify the productivity of any financial firm. Return on assets considered as the return of the organization for utilizing short-term and long-term assets for discovers the incomes or revenues. Return on equity is the gain on the investment from the investors of the organization.(Mauer, 2014) got a positive and important association between short-term debt ratio and total assets and profitability, however positive relationship between proportion of long-term debt and proportion of total assets and profitability. (Barclay, 2015) measure

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relationships between leverage and profitability. The results showed a positive and important relationship between debt ratio and profitability. Returns on assets and returns and equity are correlated positively with corporate profitability. Some researchers reported a negligible unfavorable correlation between the profit and profitability of companies. (Geske and Rober, 2014) reported a significant negative correlation between the credit ratio and total assets and profitability of the company. (Al-Khatti, 2015) did not find a statistically notable relationship between the company's interest and profitability in its research.Our research is focused on measuring the relationship and affiliation between debt, profitability and financial performance of the Karachi cement industries listed in the Karachi Stock Exchange.

Following are the theories identified by researchers related to debt financing:

# *Trade off Theory*

The theory is developed by Modigliani and Miller (1963) who focused on tax benefits of debts. According to Modigliani and Miller (1963), the attraction of debt decreases with the personal tax on the interest income. The theory indicates that financing in debt will give many advantages in future such as tax benefits of debts and the cost of financing with debts, including bankruptcy costs of debt. A firm is adjusting its overall financial performance; that focus on what percentage of debt and equity to use for financing.

# Pecking Order Theory

This theory was developed by Myers and Maglow (1984). According to which companies prefer domestic financing compared to external financing. If companies require external financing, then they prefer equity to equity and are made as a last alternative. When it comes to dividend distribution and the use of debts to raise the value of a company, companies take a conservative approach. The theory shows that the company's company (Myers and Majuluf, 1984) is a special preference for capital used for financing.

# Market Timing Theory

Baker Weger (2002) created the premise of the timing of the presentation. They claim that the business issue is the new equity when stock prices are assessed and the repurchase costs are reduced when the stock price is near to the ground. In this way, the change / fluctuation in stock price affects the capital structure of the enterprise. As described in the market time hypothesis, companies grow towards equity when the relative cost of stocks at that time is low.

## Hypotheses

H1: Total Debts has a significant impact in financial performance of cement industry in Karachi.

H2: Short Term Debt has a significant impact in financial performance of cement industry in Karachi.

H3: Long Term Debts has a significant impact in financial performance of cement industry in Karachi.

## **Research Methodology**

Research methodology is a methodical way to solve a problem. It is a method to check the research scientifically and statistically proved and how much research is carried out. Altogether, the procedures by which researchers further elaborate is describing, predicting and explaining occurrences are called research methodology. Research methodology aims to provide the work map of research statistically. (S. Rajasekar et al, 2013).

# Research Design

This study used quantitative research method to identify the relationship between the company's debt and its effect on financial performance of cement industries in Karachi. According to Creswell (2011), quantitative research gives and makes a statistically significant statistical conclusion about the population by studying the representative part of the population. The whole group is studied in the population. The population may be broad or narrow so it does not matter for the company; just

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include the individual who fits in this population only. If the chosen individual is properly then the sample will be statistically identical and valid to the population (Campbell, 2012). The Quantitative research can be either descriptive or experimental. The study used secondary data to scrutinize the impact of debt on firm performance (Campbell, 2012).

# Data Collection

The Secondary data used to conduct this research. Sources of data include annual financial statements of cement industries located in Karachi, Official announcements from Company's websites, Karachi stock exchange and Securities and Exchange Commission website. Data will be extract and include the statement of comprehensive income, financial position and notes to the accounts. The data that has been used in this study is from 20018 to 2017

## Regression

The method used in correlation and regression is to investigate the connection between total debts and short-term and long-term debt and the financial performance of Karachi cement companies. The regression model (Maina and Ishmail, 2014) about the affect of the capital structure on the efficiency with relate to money or financial performance.

# **Results and Discussions**

Mode	R	R	Adjuste	Std.		Change	e Statisti	ics		
1		Squar	d R	Error of	R	F	df	df	Sig. F	
			e	Square	the	Square	Chang	1	2	Chang
				Estimate	Chang	e			e	
					e					
1	.948	.899	.848	.06254	.899	17.792	3	6	.002	
	а			0						

Table 1: Regression Analysis (Power Cement Limited)

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		Unstandardized Coefficients		Standardized TABLE 4 Model Sun Coefficients		0	95.0% Confidence Interval for B		
Mode	R -	R Square B	Adjusted R	Std. Error		-	Lower	hange Statistics Upper	-
		Б	Std. Septime	Betche Estima	te	R Square Change	F Change Bound	df1 Bound	
							20.702	3	
1 a. Predict	.955 <sup>a</sup> ors: (Constant),	.912 td, ltd, std	.868	.022	676	.912	20.793	3	
l a. Predict Model	ors: (Constant),	td, ltd, std		.022					_
			.868	.022	5.503	.002	-3.060	-1.176	_
	ors: (Constant),	td, ltd, std		-7.439					-
	ors: (Constant), t	-2.118	.385		5.503	.002	-3.060	-1.176	-

Table 1 Regression Simple linear regression model was implemented to predict firm performance of Attock Cement Limited in this research. The forecast was carried out basedupon the effect of debt on Attock Cement Limited performance. The findings identified that Attock cement limited, the model adjusted R square was 0.868 which explains that positive86.8% total variation of firm performance is defined by debt ratio.

Table 2: Regression Analysis (Tahtta Cement Limited)

Sq Adjuste ire d R Square	Std. Error of the	R Square	F	nge Stati df1	stics df2	Sig. F
			-	df1	df2	Sig. F
	Estima te	Chang e	Cha nge			Chang e
.02457 9	.07108 6	.029	.059	3	6	.980
	9	457 .07108	te e 2457 .07108 .029 9 6	te e 2457 .07108 .029 .059 9 6	te e 2457 .07108 .029 .059 3 9 6	te e 2457 .07108 .029 .059 3 6 9 6

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				Coefficients	5 <sup>a</sup>			
Model		Unstandardized		Standar	t	Sig.	95.0% Confidence	
		Coeffi	cients	dized			Interva	l for B
				Coeffic				
				ients				
	-	В	Std.	Beta			Lower	Upper
			Error				Bound	Bound
1	(Con	.146	1.509		.09	.92	-3.546	3.838
	stant)				7	6		
	std	135	.408	255	-	.75	-1.132	.863
					.33	2		
					0			
	ltd	119	.285	853	-	.69	815	.577
					.41	1		
					8			
	td	.296	.721	.879	.41	.69	-1.467	2.059
					1	5		

Table 2 Regression Simple linear regression model was used to predict firm performance of Tahtta Cement Limited in this research. The prediction was carried out basing on the effect of debt on Tahtta Cement Limited performance. The findings indicated that Tahttacement limited, the model adjusted R square was -0.457 which indicated that negative45.7% total variation of firm performance is explained by debt ratio.

Table 3: Regression Analysis (Overall Cement Companies)

Mo R	R	R	Adjusted	5					ics
del		Square	R Square	of the Estimate	R Square Change	F Chang e	df1	df2	Sig. F Change
1	.696 <sup>a</sup>	.484	.457	.162	.484	17.530	3	56	.000

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Model		Unstandardized Coefficients		Standar dized	Т	Sig.	95.0% Co Interva	
		coem		Coeffici ents			interva	
		В	Std.	Beta		-	Lower	Upper
			Error				Bound	Bound
1	(Cons	.008	.065		.123	.902	123	.139
	tant)							
	Std	-1.387	.358	-12.291	-	.000	-2.105	669
					3.87			
					0			
	Ltd	684	.236	-6.056	-	.005	-1.157	212
					2.90			
					0			
	Td	2.038	.550	18.876	3.70	.000	.937	3.140
					8			

Table 3 Regression Simple linear regression model was applied to predict overall cement companies of Karachi performancein this research. The prediction was carried out based upon the effect of debt on Overall Cement Companies performance. The findings of this indicated that, the model adjusted R square was 0.457 which identify that positive45.7% total variation of firm performance is explicated by debt ratio.

## **Future Recommendations**

Recommendation was that Cement Companies should utilize moderate debt levels in their capital structure. High levels of interest expenses severely affect the availability of internal funds for investment. The opportunity cost of high interest expenses is therefore investment using internal funds which is forgone. High interest rates dissuade investors from using bank financing. Banks are also recommended to give longterm loans to facilitate firms to invest in equipment and machinery. It is intricate to make loan repayments of short-term debt financing that was used for long -term investments. Ideally the primary basis of loan repayment should be cash flows from the project initiated.

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According to regression analysis above, cement companies in the market value of its debt financing with a very important role, the long-term debt and short-term debt financing have positive correlation, but their correlation coefficient is relatively small. From the findings it can be recommended that cement companies listed at the KSE should continuously formulate measures that sustain their accounts payables because this will lead to increased returns on assets. This carries a positive and significant effect on returns on assets. On the other hand, cement companies ought to be cautious with the interest on tax as a financial measure as a unit increase on the interest on tax may lead an equivalent decrease on the return on assets.

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