



# **MKM227 Postgraduate Dissertation**

Student Number:1247322

	Comments	Max Mark	Actual Mark
Introduction  Identification of a valid topic, research question and objectives framed to Masters Level standard with academic rationale developed, clear industry contextualisation of the research topic	Supervisor Comments:  2 <sup>nd</sup> marker Comments:	10%	
Critical Literature Review  Depth and breadth of literature search,	Supervisor Comments:	25%	

an are are man and suitle an arrive at a suitle and a suitle	nd		
engagement with seminal authors and	2 <sup>nd</sup> marker Comments:		
papers, evidence of a critical approach			
toward the scholarly literature			
_			
	Supervisor Comments:		
	Cupervisor Comments.		
Research Methodology			
,			
Evaluation of research philosophies and			
perspectives. Justification of		15%	
	and	13/0	
methodological approach, sampling	2 <sup>nd</sup> marker Comments:		
strategy, data analysis and reliability and			
validity measures as applicable			
Tanany measures as appreasis			
	Supervisor Comments:	35%	

Data Analysis and Interpretation  Evidence of rigor in data analysis and			
interpretation procedures, identification of key patterns and themes in the research data, integration of academic theory into explanation of findings	2 <sup>nd</sup> marker Comments:		
	Supervisor Comments:		
Complyations and			
Conclusions and Recommendations			
Research question and objectives addressed with implications to theoretical			
and managerial concepts considered. Recommendations provided for theory, practice and future research	2 <sup>nd</sup> marker Comments:	10%	

	Companies and Companies	I	
Organisation, presentation and references.  Well structured and ordered dissertation with correct use of grammar and syntax. In-text citation and bibliography conforming to "Cite Them Right"	Supervisor Comments:  2 <sup>nd</sup> marker Comments:	5%	
Total	First Marker Total  Second Marker Total	100%	

Supervisor General Comments:	Agreed Mark:
2 <sup>nd</sup> Marker General Comments:	
Supervisor's Name:	
Supervisor's Name: Signature: Signature:	•••••
2 <sup>nd</sup> Marker's Name: Signature:	

[A	critical	analysis	of financial	and	business	performance	of	cement	industr	ĴΥ
				Р	akistan]					

A dissertation submitted in partial fulfilment of the requirements of the Royal Docks Business School, University of East London for the degree of [MSC international accounting and finance]

[May, 2014]

[Word count: 12716]

I declare that no material contained in the thesis has been used in any other submission for an academic award

Student Number: 1247322 Date: 13-05-2014



#### **Dissertation Deposit Agreement**

Libraries and Learning Services at UEL is compiling a collection of dissertations identified by academic staff as being of high quality. These dissertations will be included on ROAR the UEL Institutional Repository as examples for other students following the same courses in the future, and as a showcase of the best student work produced at UEL.

This Agreement details the permission we seek from you as the author to make your dissertation available. It allows UEL to add it to ROAR and make it available to others. You can choose whether you only want the dissertation seen by other students and staff at UEL ("Closed Access") or by everyone worldwide ("Open Access").

#### I DECLARE AS FOLLOWS:

- That I am the author and owner of the copyright in the Work and grant the University of East London a licence to make available the Work in digitised format through the Institutional Repository for the purposes of non-commercial research, private study, criticism, review and news reporting, illustration for teaching, and/or other educational purposes in electronic or print form
- That if my dissertation does include any substantial subsidiary material owned by thirdparty copyright holders, I have sought and obtained permission to include it in any version of my Work available in digital format via a stand-alone device or a communications network and that this permission encompasses the rights that I have granted to the University of East London.
- That I grant a non-exclusive licence to the University of East London and the user of the Work through this agreement. I retain all rights in the Work including my moral right to be identified as the author.
- That I agree for a relevant academic to nominate my Work for adding to ROAR if it
  meets their criteria for inclusion, but understand that only a few dissertations are
  selected.
- Thatif the repository administrators encounter problems with any digital file I supply, the
  administrators may change the format of the file. I also agree that the Institutional
  Repository administrators may, without changing content, migrate the Work to any
  medium or format for the purpose of future preservation and accessibility.
- That I have exercised reasonable care to ensure that the Work is original, and does not to the best of my knowledge break any UK law, infringe any third party's copyright or

- other Intellectual Property Right, or contain any confidential material.
- That I understand that the University of East London does not have any obligation to take legal action on behalf of myself, or other rights holders, in the event of infringement of intellectual property rights, breach of contract or of any other right, in the Work.

#### I FURTHER DECLARE:

- That I can choose to declare my Work "Open Access", available to anyone worldwide using ROAR without barriers and that files will also be available to automated agents, and may be searched and copied by text mining and plagiarism detection software.
- That if I do not choose the Open Access option, the Work will only be available for use by accredited UEL staff and students for a limited period of time.

/cont

#### **Dissertation Details**

Field Name	Details to complete	
Title of thesis	A critical analysis of financial and business	
Full title, including any subtitle	performance of cement industry Pakistan	
Author	Javaid, Muhammad R.	
Separate the surname (family name) from the forenames, given names or initials with a comma, e.g. Smith, Andrew J.		
Supervisor(s)/advisor	Hussein-Al-Sohagy, M.	
Format as for author.		
Author Affiliation	Royal Docks Business School	
Name of school where you were based		
Qualification name	MSC international accounting and finance	
E.g. MA, MSc, MRes, PGDip		
Course Title	ACM227 Dissertation	
The title of the course e.g.		
Date of Dissertation	2014-05	
Date submitted in format: YYYY-MM		
Do you want to make the dissertation Open		
Access (on the public web) or Closed Access (for UEL users only)?	Open Clo YES	

By returning this form electronically from a recognisedUEL email address or UEL network system, I grantUEL the deposit agreement detailed above. I understand inclusion on and removal from ROAR is at UEL's discretion.

Name: Muhammad RahatJavaid

Signature:Muhammad RahatJavaid Date: 13-05-2014

# TITLE:

# "A critical analysis of financial and business performance of cement industry Pakistan"

Course Module

### **ACM227-DISSERTATION**

Supervised By

Prof. MostafaHussien-Al-Sohagy

Submitted By

Student Number: 1247322

### **ABSTRACT**

Assessing industry performance is one of the main tasks for an investor. Being a financial analyst one should know the historic trends and future predictions of the particular industry. As the world has become a global village, investors have diversified their portfolio of investment and to know the pros and cons of a particular industry overseas they need some reliable resources to check its trends and predictions. This research will main focused on the financial and business performance of cement industry of Pakistan. For the purpose of this research both positivist and interpretivist approach has been taken. Both quantitative and qualitative data have been collected for the purpose of this research. The research consists of ratio analysis about the financial performance perimeters. Along with ratio analysis different types of regression analysis have also been used to check the dependence of one variance with another. Being a researcher it is very important to illustrate the importance of main perimeters of measuring financial and business performance of any industry. For this the research has focused only on those main perimeters which are considered as a backbone of any industry. In the end a conclusion and recommendation have been given. It has been concluded that investors look very positive about the future growth of cement industry in Pakistan because the country is focusing on building huge infrastructure within 10 years. Furthermore, the export level of cements has also risen as compared to previous years. Therefore, this research has covered almost all the factors that are core for measuring financial and business performance of the industry.

### <u>ACKNOWLEDGEMENT</u>

My greatest thank to Allah Almighty. Who had bestowed me with the ability and potential to complete this dissertation. Before I go into thick of the things, I would like to add a few deepest words for the people who were part of this study in numerous ways people who gave unending support right from the stage the work was assigned. Particularly I wish to thank Mr. Raza Kazmi operation head in D.G cement Pakistan who helped me to learn a lot of practical practice and information regarding the cement industry and finally deepest and warmest appreciation to my Prof. MostafaHussien-Al-Sohagywho helped me a lot by guiding me and putting my research on right directions.

# 1247322

TABLE OF CONTENTS:	PAGE NO.
INTRODUCTION     LITERATURE REVIEW	05 14
3. RESEARCH METHODOLOGY	25
<ul><li>4. FINDINGS</li><li>4.1 Findings from primary data</li></ul>	39
4.2 Regression Analysis	41
4.3 Findings	43
5. DISCUSSION AND CONCLUSION	50
LIST OF REFERENCE	55

#### 1) Introduction

Assessing Pakistan's cement industry from financial and business standpoint has its significant importance as this sector is the most important richer, wealth generation sector of the country. Pakistan cement industry is plentifully enriched in raw material which is basic need for any cement industry; it has best limestone along with the natural gas resources. People of Pakistan as well as investor of other countries are investing in this sector at broad range because of the positive outflow from the companies running the cement plants and its distribution. Pakistan is also exporting the good quality cement to U.AE, Russia, Iraq and other countries. In this research, I would try my best to provide with latest condition and clear picture of this sector and for this the financial position of companies would be focused more. Currently Pakistan has 22 cement companies which are operating with approximately production level of 9.403 million tones. From these 5 companies are running under government and other 17 are privatize. The growth rate within this sector is of 32% with the domestically increasing demand with around 24.95% and also with the exports rate of around 111.86% these figures are the percentages of comparison of last 5 years with the more previous analysis of year 2007 to further.

Pakistan has vast spread resources, it has main two regions of its cement industry the one is southern and other is northern region. Financial performance from these two is going very well they are producing about 35.18 million tons from northern and 8.89 million tons from southern region of cement per year. As Pakistan government is working on building country's infrastructure from last 5 years so there is a rapid expand in the demand of cement. With this country is also lining with non-availability of electricity resource which is main requirement for doing work from plants and for production, this reason somehow have ascended the cost of production as well and the government is also working to limit the further export agreements of cement because they need more cement for their country as their developing

programs are at peak. With the need and consumption point Pakistan is consuming lesser than other developing countries, they are consuming around 131 kg per person/annually whereas the average from all over the world is of 270 kg per person. Beside this cement industry have given immense currency to Pakistan by the freight of 7.716 M tones from Y07-Y08 of cement on other hand also earned a foreign exchange of 459 million dollars which was an immense contribution. Pakistan industry has massive opportunity to grow more doubtlessly and this can keep contributing to its GDP with a good percentage.

## 1.1 Background of Pakistan Cement Industry

The history of cement industry in Pakistan begins from back 1921 when Pakistan. Plant their first production plant at Wah after the independence of country in 1947. At that time there were only 4 cement plants that were working with the capacity to produce 470,000 tons per year. These plants were planted in the factories of different cities which were located at Karachi, Rohri, Dandot and WahCantt. Cement is one of the most basic material uses for development and to build infrastructure in any country. Pakistan produces this material in their country because of availability of limestone, Gymnasium and other resources. But it has high transpiration cost also. Pakistan comes under the best producer of cement in Asia. They are also the well-known exporter of good quality cement.

### Production process

Cement tone needs 1.7 tons of limestone, silica and limestone etc. quantity wise limestone is needed about 80% whereas 19% clay is needed for clinker. Pakistan is a country which is enrich with materials and minerals resources these resources can be used for next 100 years to produce cement. But only having enough raw materials cannot be appraised as competitive advantage. Cement production needs to remain continues process. The process consists on the basic steps which includes drying raw materials, grounding them,

measuring according to proportions and then burnt for process. The output is clinker in pulverized with gypsum at grinding stage to produce cement.

Cement in Pakistan use two different production processes that is the wet process and the dry process. Both these operations have their own different types of kilns. Cement process of wet method fed the raw material with kiln in slushy type. The process consume more energy which may cause the methods to get more costly but in the other process which is dry process raw material in ground form is fed to kiln dry powder to consume low energy and to keep the cost low. In the past 70's the cement procedures used were mostly the wet process whereas the processes adapted by the new firms are mostly dry processes. These machineries are settled by SCCP and some companies that are performing between their selves individually. It is recorded back in 1995 that the total 60 percent of volume was assembled on dry functions which were greatly supplemented as new sub units and the leading logic was cost efficiency.

# 1.2 Research objective & research question

The main intention for doing this analysis is to investigate the opportunities in Pakistan cement industry from investing point of view.

### Questions need to be address in this research includes:

Analyzing the financial and business position of current cement industry of Pakistan?

#### Further:

- Find out the scope of financial growth in cement industry?
- Find out those elements which have impact on the people who are interested to invest in this industry of Pakistan?
- Find out the future expectations of investor from this sector?

#### 1.3 Justification of literature

From the available literature on cement industry of Pakistan, I have found that the most important factor is working capital as cement industry is a manufacturing firm and it required to remain under specific cost budget to maintain a profitable ratio margin for meeting profits and return. The study of Ghosh (2003) shows that the firms have to keep a justified profit ratio to get the favorable benefits from the operations which are regular activities. Whereas the unbalance volume of capital in process decreases the ratios of companies' liquidation, they say that keeping the capital within companies would cause decline in industries profits.

Empirical results of the researches have shown that if your management is ineffective, incompetent and cannot handle the working capital within the organization than your profits and capacity for production would be suffering and it will lead to industry sickness. Bhattacharya (1997) explains that from financing prospectus modern financial management points that if the volume of assets that company holds would decrease without keeping the focus on the risk element of stock out. To analyze the well-conditioned situation pf any company the management of its resources and the capital which is in process should be maintained in a balance way and this also need to cluster the unneeded amount of capital that can cause that decline in total financing available for companies. The majority of the research which had been done focuses on those companies in this sector should understand the value of working capital with keep the low cost phenomena in view. Pakistan is that state which has the largest percentage of population growth around globe. It has brought a noticeable need of cement from different consumers. In accordance with building establishing industry in Pakistan there was a grand backlog in housing construction of around 6.25 M. Huge volume of lime and cement was required per annum for the construction in main cities. The expected growth for its demand was around 7 percent every year. The

researchers conclude that the expected cement need for foreign sale is complies on two elements the first is surge in its pricing in abroad markets and second is the charges implemented by government of Pakistan like freight. Whereas the volume which is produced for exports have slowly decreasing because of which prices were supposed to be high and the non-availability of large volume of cement will create a discouragement. . The financial management decisions of companies relates with three major areas: capital structure, capital Investment, and working capital management. The study of Appuhami (2008) shows that management of working capital has great momentousness for every company as it affects its overall profitability and liquidity . Working Capital (WC) is an indicator of an organizations working liquidity, also hold ample of Working amount assumes that the company is able to render for all of its short-term expenditures and due obligations. Working Capital is important for large companies to increase their share prices, pay operating expenses and short-term loans and their ability to raise more funds. WC is important for small companies which cannot access financial markets to borrow, and for new businesses which need to hold on until they reach breakeven point.

Rehman (2007) study showed that the clear foundation of research on cement industry is that working capital management explains the balancing of current assets and liabilities. Working capital consists of current assets and long-term capital for temporary work. Working capital is of two types they are permanent working capital means "the amount of current assets needed to meet the minimum requirement for long-term business "Van Horn (2005) and the temporary working capital or patterned in process capital is "the volume of current assets that varies with seasonal requirements". Sufficient working capital ensures continuous supply of raw material and uninterrupted production for manufacturing organizations. Enough working capital creates and maintains goodwill by making timely payments to creditors. An organization having

adequate working capital enjoys high liquidity and it helps the organization to get the benefit of cash discount on purchases which leads to a decrease in cost of production. Profusely working capital enables a firm to make regular payment of salaries, wages & other operating expenses. With the help of working capital a firm can purchase raw material in large volume when the prices are low and it can sell the finished products when prices are high.

# 1.4 Research methodology

Research methodology explains the process used to collect the related information and data for the purpose of making business analysis and conclusion. The main aim of this study to analyze the financial strength of cement industry for this research we need data which help us to conclude the research questions. Methods which will be utilized to collect data would be qualitative and quantitative ways of gathering data. The research method would also include the financial reports of firms operating in Pakistan cement industry. I also used data by interviewing some of firms operating in Pakistan. Data is collected from the companies which are registered under Karachi stock market.

# 1.5 Significance of the study

The significance for conducting this research is to find and identify the opportunities and scope of investment in cement sector. Its significance would also include recognizing the elements that are involve in the success and profitability of cement industry. Another major reason of why studying about this sector is important is because cement industry contributes with high percentage in Pakistan GDP so we need to find the problems or issues confront by this sector in upcoming years. This research analysis will help to find us the limitations, opportunity, scope for investor. It will also explain some valuable recommendations that how we can deal with the upcoming threats to this sector. This would also help the investor or people who have interest in cement

sector to do financial and numerical comparison for their stake. The differences in the literature reviews by various researchers are studied and combined their views regarding the positive impact of cement industry of Pakistan. The factors include mostly were cost of production, working capital effects, labor intensive industry, fuel consumption and usage of modern machinery and technology.

All improvement is meant of exploration. Doubt is sometimes profitable than headless confidence for it put us on way to investigate and find more also inquiry leads to innovation or think more ideas" is a renounced Hudson Maxim in light of which the importance of finding can well be understandable. The risen volume of research would make working more relative and feasible. Research imprints the scientific and proactive approach and it exaggerate the betterment of logical habits of processes, methods and organization. The part that different reviews play in varies several fields of applied economics further linked with business into the economy at large or overall has wider range in modern era. The more difficult base of business and government has keen attention on the use of these conducted researches in solving these working matters and issues. Research is just like a free help to economy of any nation and has attained extra value from the two prospective the one for government and businesses itself.

Comments of different people that what they think what they have identified has very important place in country's policies making part. Just for sake if government's budgets keeps a part on a review of the needs and wish the people and on the availability of wealth to meet these demand. The expense on requirement has to be related to probable incomes and this is an area where study and different reviews are mostly needed. By doing research we can identify new ways, alternative regulations and can as well analyze the out flow of each of these alternatives.

### 1.6 Growth trends of Cement Industry Pakistan

Raw material for cement industry is at higher availability that is why Pakistan is supposed to be one of major cement industries there are many plants working in this sector but the last few years are on high yield for all the concerns i.e. cement manufactures when the government rises the expended on infrastructure development on the other hand ascend the per capita income take the cement in double digits. In the 2007 research the registered sale of cement has grown to 31% which means 17.53 million from 13.5 million tones.

In year 2008 it becomes visible to an increase in both the market within region and at within countries boundary of country region with 18.17M tones of sales with rise in 7.2 percent by which it meant 14.4M as compared to last year which was 13.5 million/ tones .With respect of Exports from 3.7 million / tones against 1.8 million tons in the last year which shows the increase of 110 %. Pakistan has a great impact of exports with neighboring countries. There has been a rapid growth of cement demand seen in both domestic exports market during the fiscal year of current year. Ascend that is over all in cement industry is about 32 % in which domestic export is 24.95 % and export increased by 111.86%. Pakistan industry is seems to be more successful to cover the markets of countries which are new in markets other than conventional exports market of which are Afghanistan and Iraq.

# 1.7 Challenges/ limitations to cement industry

From the past cement industry has a positive record of outflow but back from 3 years Pakistan Is facing swear energy crises due to which the profits of this industry have reduced to a large percentage the recovery of cement sector have slow down because of recent increase in POL prices. Electricity charges are also raised to greater percentage. The advantage of devaluation has been eroded almost entirely because of increase in energy cost this all has resultant high cost of production and also high cost of transportation. These costs have added

almost 65-70% of the total cost of the cement. With all this the cement sector which is bearing huge taxes inclusive of federal duty, sales tax other special taxes or marked fee on every single bag of cement.

### 2) Literature review

Before writing a literature review it is very obvious to understand the need for study hat its purpose is in one's research in this we discuss the ideas of other people. A literature review is a detailed review on discussions and publications which has already been announced or published in books, researches, papers etc. in this we study and keep our focus on some particular topic and find what other researchers have discussed about it. The literature of any research part should explainable to its objective and concern with the area of same interest but in views of different people. Writing the literature in your research will expand your grip on your research topic in two main ways the first the more you pursuit information regarding factors, effects, methods about your topic from articles, books and authors who have already done a vast research on topic resembling to yours will make your vision clear. Second important thing is, literature review will able us to critically review things do analysis of situations by comparing different researches and conclude a reliable and valid result for your research. An academic research report is concentered on to provide a new argument, in this literature would help us to support our statement along putting some light of already conducted research.

# 2.1 Importance of Working capital

A research conducted on Pakistan based firms in cement industry to find out the correlation between financial ratios and performance of firms. For this Haq (2011) did analysis of fourteen companies operating in Pakistan Khyber Pakhtonkhuwa Province (KPK) cement industry and is listed under Karachi stock exchange. This research brings in notice that working capital and profitability ratios have collective weight on firms overall performance. To examines performance of any firm or industry its ascendency should be clearly identify and this study also emphasis on identify the sensitivity on returns. For understanding these ratios they prefer to use multiple regression and

correlation coefficient. The researches results concludes that the tested hypothesis have significance at level 0.01 and 0.05. The end result signifies that there is strong association between the two terms working capital, its balancing and profitability in the context of cement production firms in Pakistan. Management of working capital is related to managing the current assets and current liabilities by Reheman (2013). Another study by Van horn (2005) Working capital is the total value of investment pooled in the currently owned assets of organizations.

A research by Tariq (2013) on cement industry identified the elements involved in performance of this sector. According to him Working Capital Management has an important significant in any kind of industry, especially in the manufacturing industries. As working capital becomes firm's major assets to grow and enhance their performance in this tough competitive market as Pakistan is rich enough with cement resources. Measuring performance and financial strength through this feature of working capital is possible when we are able to measures performance of working capital he explained in his research that the form's should adapt any specific method of measuring its performance like Cash Conversion Cycle (CCC), Net Trade Cycle (NTC), Receivable Turnover in Days (RTD), Number of Days in Inventory, Number of Days in Payable, & Return on Asset (ROA). Working Capital Management should be reviewed on regular intervals and have to be maintained by proper control.

This depends on mostly owing to the cause that, at time the financial feasibility of the firm was connected through their liquidness. Through his research he added the valuable contribution in the current literature. The exhibition of cement industry is predictor by managing the working capital by using proxy of CCC, NTC, Collection policy, policy of the inventory, policy of the payment, liquidity and its comparison with the profitability using financial data of the firms listed in the Pakistan's KSE these predictors have helped to identify the

working capital average, taxes and other expenses for these cement manufacturing firms.

#### 2.2 Performance variables

In another study an effort has been conducted by Ahmad (2009) which he done the empirical study of Pakistan cement industry. He also assists the working capital referring to profitability of this sector from year 2005-20 c09. This study is about the relationship between the Return on Equity (ROE) and Return of Asset (ROA) as performance variables (dependent variables). Article by Raza (2009) financial analysis cannot be done fairly until we calculated the firm's profitability with sufficient ratios. Here working capital is used as independent variable while calculating performance. To get better profits and results the working capital should extract its ratio and then measures firms eligibility to up come from its obligations and due accountabilities. Cement sector is the fastest growing sector in economies it has restricted rules and policies in economies which are under developing phase and in transition periods whereas cement firms have shifted to under developed countries because of this restricted policies. Mehal (2001) deeply suggest the association between the capital structure and prices in stock market with reference of this industry. Current literature supports the Debt to Equity Ratio, Debt to asset ratio, interest Coverage Ratio as an independent variable and stock prices as dependent variable. Firms which were participating and trading actively on stock exchange during five years continue these firms are facing negative relation between the company's structure and stock exchange. By this critical research it is explained that there exists a negative relation between the stock exchange prices and the capital structures of the companies. This research by Mehal (2001) added his unique contribution in Pakistan's available literature on cement industry. Overall this sector of Pakistan is flourishing rapidly and still can grow at large level because it has unlimited facility and competition is getting hard as many of the successful firms are there in this industry. They have assume two hypothesis Ho and H1 which gave result that Ho says that capital structure of firm's do affect stock prices but still the prices at stock market showed 25 percentile that the invested capital structure or framework didn't affect the stock prices. Obviously there are some other factors which affects stock price 75% and on which business performance of this sector is dependent and they are macro factors like demand and supply, political instability in country, inflation, etc.

### 2.3 Competitive forces

Pakistan cement industry is intensive to growth and profits. According to Arifeen (2011) to study the internal performance and external growth of industry it's important to find the factor first which direct influence the performance of firms. The cost of investment in this industry is very high because of different factors like manufacturing trading in Pakistan cost high because of high cost of energy, high transportation and fuel cost etc. This study discussed the importance of cost reduction in this sector as business performance is going on peak but in future if firms would be facing same pattern of high cost than this sector may have to suffer in future. For avoiding this government of Pakistan is pressuring to minimize the import duty on pet coke and other fuels also. Cement industry in Pakistan was regional exporter with approximately 10.752 million tons of cement in years 2008-09. The decline in this sector has occurred in 2011 with almost 8.568 million tons cement Pakistan is always been a promising capacity in export markets. The expanding markets in Egypt and Myanmar will be more worthwhile for this sector in upcoming years. It will bring global market trends, forecasts, and competitive moves and analyze factors that will bring developments in world cement sector overall.

### 2.4 Profitability with working capital

To find out the answer of the questions related to performance and profitability of cement industry like Does Working Capital Management Affect Profitability of Pakistani Firms? I concluded this in my report because I find his discussion important for analyze firms from financial point of view as discussed by Nasr (2007) main reason for analysis and research is to add value to the previous research of financial management which is known as working capital management. In Pakistan cement industry is blessed by enrich resources but viewing this scope, growth opportunities in this sector there is least research done on this sector of Pakistan. They used data of ninety four selected company from cement sector this analysis is been done by year 1999-2004. Calculating performance by measuring variables and the correlation between them Average collection period, payment period availed to returns, the wealth conversion cycle of companies and Current ratio on the gross profitability of Pakistani companies .Its result has shown up that there is inverse relation exist in between the elements of the in process capital and profitability ratio of the firm. They believed that as wealth conversion cycle climbs up it will bring decrease in profits of companies and managerial people at top level create a positive inflow for the investors by decreasing the wealth circulation period to least time duration.

Nasr did the Pearson's Correlation Coefficient Analysis and also referred qualitative analysis to measure the business performance. From this study we can analysis that significant negative association among liquidity and profitability between these ratios.

# 2.5 Debt and equity

Nauman (2012) have studied that how the firms in cement industry selected during debt and equity whereas taking any decision related to finance and the impact of that decision on their business performance in long run. This study

main emphasis the Maple Leaf Cement Company Ltd, this company is working in cement sector of Pakistan and has been selected to do analysis of its financial condition to develop a true view about broadening and opportunity in this sector. For this ratio analysis has been performed to check the effects of debt and equity. Results of this study showed that equity financing has more positive influence on better performance of firms. When firm choose to publication of loans among debt-equity option when its leverage ratio is least than the set standards which was wholly industry averages in this case. Obviously the association between current debt ratios or capability and issuance option could not be proved by the sample only but it has proved the association linked between the investment in new belongings that are assets and issuance of those equities that meant liquidity does have their effect on finance related matters somehow. They also verify other ratios and factors that have relation with decision making and profit in cement industry. It is the dividend payout ratio and the price per earning that shows that financing has positive relationship it's like when the price per earnings ratio was going up the firm decided to issue the equities. Keeping the reactions of finance resolutions on the business outcome the companies' chose provide proofs in biasness of what it is already planned. Hence they concluding from their research that in cement industries their business performance largely depend on equity financing.

#### 2.6 Market Structure

In a study conducted by Zaheer (2013) Cement manufacturing in Pakistan it is discovered that this sector is a market of oligopoly and it has immense competition between members of the cartel and the cartel arrangements. To view the business performance and success of the firms in this sector we first identify the factors which are critical for this industry profits as it's a manufacturing sector and we cannot off set the critical path by just focusing on growth side only. Manufacturers of this sector have handle the counter invasion

strategies by applying varies volume improvements in their machines to catch the extra market share and to enjoy the economies of scale (maximum profit from mass production) from the production of final products. In their report they also talked about some settled KPIs to calculate the business performance along with management activities. Their report was proved very informative for industry because it brings attention towards other factors except only financial ratios and existing growth margin.

# 2.7 Descriptive Analysis and regression

Mobeen (2013) has studied the role of working capital in profits, nonprofits and performance linkage to both of them. They illustrate that the investor of this sector have concern with profits and pay attention to working capital update. Net working capital basically includes the total assets company holding at specific moment and then the liabilities against that. Currently viewing the literatures and studies available on this sector shows a positive performance and monetary benefits of firms. Firms operating in cement industry in Pakistan are showing a positive commitment to its shareholder and giving a positive outflow to its economy. His results of this study have explained that there exists the positive and negative relation of working capital depending on the variables. Return on asset gives us both negative and positive slope but it particularly depend on the firms individual independent variables.

To empirically view the profitability relationship with the working capital in cement industry of Pakistan this research is conducted by (Taliv, 2011) this research is based on performance of cement industry during year 2005-2010. He examines that regression analysis should be used to measure the performance of firms by using performance variables. This study comes up with almost same result of previous research that working capital does have a positive association with this manufacturing sector. According to this study the

size of the firm do vary with the return on its current asset it basically is connected with a negative relationship and the outcome of return on equity (ROE) has positive correlation with working capital of firm. By viewing current year's growth and performance of Pakistan's cement sector it can be interpret easily that this sector have more room to grow well and the factors involve are macro factors where other major is working capital which has positive influence on the performance of this industry.

The investigation by Bhanu (1995) conducted to measure the capacity and performance and also to find the behind reasons underutilization in cement industry. This study basically fills the gap of cement industry performance in different time frames with relation to its control and decontrol over performance elements. Klein's explain capacity utilization by taking sample from different firms during years 1982-1987. According to this empirical study it comes to consideration that capacity has maximum leveled outcome which a firm can attain within cement industry for maintain better performance. The utilization of resources is dependent on different variables like raw material, availability of desired items and quality but the two factors that are related to performance are demand and supply. Regression analysis is conducted to measure and estimate different inputs those are coal, fuel etc. least square method is also used for estimation. The equation used was dependent on different criteria as R2 was sign of coefficient of variables estimated. Its effect is seen on 5 firms in cement industry. The value/outcome of this estimation comes up 0.36 this result of equation have shown that the study of variables to measure utilization of capacity and performance like for coal its positive and enough. This study has results to better understand the importance of variables with contrast to performance. Other things highlighted were the study on utilization and performance in two different sectors one is private organizations and other is government owned firms in cement industry. In this research other discussion was about the Bureau of Industrial Costs and

Prices it's about internal and external factors also miscellaneous factors that causes difference in performance in firms in cement industry.

This literature discussed about changing concentration of cement industry this research is basically conducted on India cement industry (Pradhan, 1992) it measure the differences in output by cement industry after changing in policies which authorize firms to do their operations in less controlled environment. As cement industry is manufacturing sector and also tough industry for competition at macro level economy. The basic reason for conducting this research was to specify that cement industry is able to achieve its defined objectives and to see the performance of cement industry; its concentration must reduce to actively beat competition among large scale producers and the post-decontrol duration. Its research has shown that the concentration of the industry has been following a declining trend since the 1950s. They have discussed different factors related to concentration and changing which includes the variables and effects of the following factors competition with concentration, change in concentration, changing in region wise concentration and new policy region. Our literature review couldn't explain the each effect of their results about concentration so keeping this study related we will be emphasizing on studies, reasons behind the research conducted, methods used and result of specific studies. This study also explain growth of share of firms in this industry they used the kinked exponential model by launching a kink in year 1982. The research has observed that there was a decline in year 1970 to many firms but after 1971 the growth have risen in different sub periods. It also highlighted the character of concentration in post and pre policy changing's. After the methodologies and outcomes it is concluded by them that the aggregate level of cement industry have been examined regionally the evidenced does not support to the greater downfall of this sector in post periods of 1982. The conclusion of changing in policy in view of region-wise share of the large houses reveals that the capacity installed by firms has grown

at a greater rate in two regions while at the time of declining the rate of share has come down significantly in another during the post-partial-decontrol years.

This literature by (Gupta, 1975) is about measuring output and its relationship with the costing of cement industry. The cost components in this sector include labor cost; resources raw material cost and depreciation of equipment's these are basic expenditures. This investigation also has been determinant to identify the amenity of firms to achieve economies of scale or reasons firms facing diseconomies of scale. It is examined that cement industry is operating with L shaped curve (average cost curve) and have margin cost curve in horizontal way it means that firms operating in cement industry have been worked in U shaped cost cycle and after that they were unable to reach at their optimum required size. It could say after reading this paper that not all firms operating in cement industry have same cost and output effect so its basic aim is to study the association between cost and output (performance) of firms. The method adapted to conduct this research was cross section process and time series method which estimate the total cost curve of firms. In relation to measure the total cost it vary on factors like how much your labor is skilled, how much technical awareness your engineers have, the unforeseen contingencies and management etc. they have discussed four different types of hypothesis to form this cost and output relationship. Which are linear equations, quadratic formula, cubic and double log with this research it can understand easily from interpretations and tables that Marginal cost curve and Average cost curve are to be U shaped and the total cost function is cubic, so that the co-efficient of result is positive. While using time series method in regression time is used as variable for technical figures whereas in other method of cross section data the ratios are estimated of variables e.g. labor cost, material pricing and other related operating costs are used as technological measures in different firms of cement industry. While summarizing it could said as the curves are operating in U shaped average curve and the cement firms still need to reach at optimal size. And viewing from economies and diseconomies of scale there are two factors one that total cost and with labor cost are related with economies of scale while the diseconomies with material costing.

## 2.8 Growth and Consumption

A brief study is conducted on Pakistan's energy consumption and its significant importance by (Ali, 2014) as we know Pakistan is an under developed economy and is facing severe energy crises which is blemish its industry poorly. But on other hand its infrastructure is becoming more concerned part for the government to look after so there is huge increase in energy demand in this country. In theory there is strong relation between energy consumed and economic growth of any country whether it's any specific industry or huge economy. The empirical studies may provide us variations in the findings depending on different economic structures being studied Sari, et al (2008). Economies have different consumptions pattern of energy. As they have different pattern same as they enjoyed different sources to generate energy Cifter (2007). A survey conducted during the FY07 to 08 is about 53 percentile of overall coal production which is being used by brick-kilns industries and 44.6 percentile of coal is used by cement industry of Pakistan while power generating sector is consuming only 2.2 percentile of total. During the FY it's around 80 percentages of cement manufacturing companies that has been moved over to coal from furnace oil and also because of high furnace costs interfacing by cement industry Pakistan.

# 3) Research methodology

#### 3.1 Introduction

Research is an academic persuasive process which means that in what circumstances something is being done or in condition and this is also used in a technical sense. Clifford Woody define this methodology in following way according to him research is defining or finding a specific problem statement, developing different hypothesis statements against that problem, collect data through different reliable resources, apply measuring scales like calculating ratios, concluding this all process into final conclusion, to make sure that conclusion is determined with hypothesis and in the end recommendations are provided. Conducting research is contemplated as the manipulation of things, the concept that are used as specifying correct information and knowledge.

Research is considered as "falsify in words, processes, concepts or designs for the aim of relate to extend the right or investigate the knowledge rather that knowledge helps in building of theory". Study is off course an original participation to the already stock of information making for its improvement. It is the depth of true statement that with the help of research observation, contrast and experiment the search for information through objective and systematic processes of getting solution to an issues and matters is research. The processed method concerning generic and the inventing of a new theory is also research. In this chapter of research methodology the details discussion will include processes and methods used to collect the data for this study. The main idea of conducting this research is to analysis the financial and business position of Pakistan's cement industry it's a huge industry to make any decision about its related issues we cannot only relay on data which is provided in the firm's financial statements only so this research some other resources will be pursued. The companies which are selected for this research is those cement firm's which are leading in Pakistan cement sector and are also listed under KSE (Karachi stock exchange). The figure below is reflecting the framework of research that how the research pattern flows types of research, according to type of research we adopted, we identify our methods that we will follow, the techniques here mean the ways through which data would be conducting like interviews, case study. Like interviews it can be further sub divided like telephonic interviews, structural interviews or unstructured.

PARADIGM	TYPE OF RESEARCH	METHODOLOGY	TECHNIQUES	UNIT OF ANALYSIS
Interpretive (inductive, qualitative)	Descriptive	Ethnography (result of research aimed at understanding)	Observation	Relationship between individuals and artefacts
	Descriptive		Interviews	Relationship between individuals and artefacts
	Exploratory		Case study	Occupants of building, designers and managers Hotels in Dubai (pilot)

# 3.2 Research methodology

Mainly we have two types of research the primary research methods and secondary. In this research both types would be used the primary methods will include my unstructured interviews with the head persons working in major firms of cement sector and next tool is my personal observation. Secondary data will include all the raw data studied regarding to the impact and variables that reflects the performance of cement industry Pakistan.

# 3.3 Research strategy

Research manner is just not a one framed fits to all methods. The research strategy that we can select to take our dissertation defines the method that we should carry or adapt towards research concerns. Whereas the research strategy based on a number of elements that the method we follow should give reflection of each of these elements we have selected. In our Research Strategy

part I would introduce these most important elements and facts which are inclusive research paradigms, research designs, research methods, sampling strategies that would adopt and data analysis techniques.

There are four main research strategies Exploratory, descriptive, analytical and predictive. Here in this research more than one method is used exploratory is used to because to meet the need of develop hypothesis and do its accuracy testing, analytical strategy in research describe how and why something is happening and identifying variables another strategy is predictive it includes close analysis of cause and effects of available evidences.

### 3.4 Research Philosophy

Research philosophy provides or leaves the impact of research that to which level researcher's wish, values and concern is involved. The philosophy of Positivistic method is utilized here. To come up with the rationalized results from the research commonly surveys, Cross-sectional Studies and case studies are used. Positivistic method will assemble the data examination in an easy way.

This approach 'research philosophy' is concerned with the building and concern of information. This is something exact same portray what you are actually wish to do or have planned to find when you are into any research. Even if the objective of doing any study is to address any matter or issue in any specific context then the research person would be giving a new approach. The research philosophy one confirmed to be utilized it means that we do mean specific suppositions about it that how we view the problems or situations. These suppositions will provide us the underpinning or rostrum from which to announce the research strategy. It will give our option by our own norms, style of working and practical implementations.

#### Positivism

The logic behind Positivism is linked with association of the idea of objectivity importance. In this way of philosophical methods scientists gave their reviews to remark social concerns with the help of objectivity in place of subjectivity Schindler (2006). According to this paradigm most of researchers have the aim to collect generic available information and data from a large size sample instead of maintain a details of research. In accordance with researcher's own trust have no value to push the research study. The positivism philosophical method is basically linked with the observations and experiments to gather the numeric data Easter-by-Smith et al (2006).

### Interpretivism

Interpretivism can be linked as the Social Constructionism in the area of managing the research. In philosophical method research give value to their understandings and value to give accurate justification for a research issue Easter by- Smith et al. (2006). By keeping researchers focus into highlight of actual realities and figures according to the research problem. This kind of philosophical method makes up specific business situation. In this method researchers use small sample size and make evaluation of them in explanation to understand the views of more minds Kasi (2009).

#### Realism

This research philosophy mainly concentrates in the reality and beliefs that are already exist in the environment. In this philosophical approach, two main approaches are direct and critical realism Scott (2004). Direct reality means, what an individual feels, see, hear, etc. On the other hand, in critical realism, individuals argue about their experiences for a particular situation Bougie (2010). This is associated with the situation of social constructivism, because individual tries to prove his beliefs and values.

## Pragmatic

Pragmatism is basically raise usefulness, practical implication of ideas and workability. This term is letting your ideas and things done to achieve the final outcome. Pragmatism as a research paradigm is concerned with what has been emerged through the writings of Peirce, James, Dewey and Mead among others. It was said that mixed research that is also emphasis on the transformative paradigm if the researcher focuses more on philosophical beliefs than to those of pragmatism (Mertens, 2009; Mertens& McLaughlin, 2004). Pragmatism is be divided into two ages.

Our concern would be on the straight or line of actions we are taking with this warranted assertions, the overall emphasis on generic workability. In pragmatists view the action lines are those research approaches that are most suitable to study the data on hand. The real behave that will back the warranted action, attitudes and regulations that will be adopted from behavior toward working attitude. The pragmatists' aim is to find the useful matters of linkage.

#### 3.5 Motivation of Research

What make people feel or concern to do any sort of finding/research? This concern has a relative value. The possible aims for doing research may be either any one specific or could be more than one, this study motivation has the following; concerns:

- 1. Wish to earn a research degree along with its practical benefits
- 2. To face the challenges in solving the unsolved problems or finding the concerns over practical issues in this specific issue in initiates research
- 3. To have intellectual happiness of doing some creative work by myself
- 4. To put some of service to society

These are not an exhaustive list of factors that have motivated me to do this research studies. Many other things like curiosity about new issues, things, desire to understand causal association between the practical and bookish terms, social thinking and awareness.

### 3.6 Research process

Many researchers define research from different prospective but basic idea of research is similar. Research process is carried out to answer the basic question in any research starting from the purpose of research needed, identification of issue, give recommended solutions, study different researched and provide a new idea. We have two approaches in research process inductive and deductive. In inductive research we start from a specific or defined situation and take the research towards broaden idea or theories whereas in deductive research we start from generic point and take our research toward some specific or defined events.

#### Inductive research

In this research the situations or events are uncertain they can be described earlier. We collect information through different related people study their prospective regarding a same issue then identify the common factors or elements and then we do comparison of these different theories. To carry this research we do required more time to analyze the ideas and then we come up with new definitions/theories by summing up different elements.

#### Deductive research

This approach is also referred as top to down approach. In this process the research is starting from broader vision for the purpose of ending it on specific theory. After analyzing different theories we create hypothesis by narrow down the focus of study, after this hypothesis testing is being done it will ruling to confirmation of hypothesis and then final conclusion is made.

In our case the focal point would be on both inductive and deductive research. Summarizing different views into this one contribution and also have created hypothesis by narrow down our focus on certain important factors that have impact on cement industry's performance.

#### Qualitative and Quantitative Data

Qualitative research is based on gathering the qualitative data which means collecting the inward and extensive data regarding to any research or for any event. It represents the structures of large number of participants. In qualitative research the data is been collected on the basis of attitudes, logics, values and perceptions it doesn't involve the numeric information or results in numeric forms. In this the reliability of data does matter a lot because for providing any suggestion/solution or any transparent conclusion we must have the true data. In qualitative research we study individual behavior. The main tool used under this research is observation as psychologist, sociologists believe that observation is only tool which provides you or leads you to obtain extensive information about any research or event. Qualitative research is time consuming method and its interpretation sometimes become so hard. The reason behind this is that research conclusion can be confronted easily because people do have different perceptions and values.

Quantitative research includes the quantitative data which provides us with the numeric results. This research also includes the process with the following steps starting from theories and models, developing hypothesis, find the suitable instrument for measuring data (according to the requirement of research interpretation e.g. profits, earning per share etc. Depending upon which ratios or term they need to identify. Aliaga and Gunderson (2000) explained that what we understand by quantitative research very well as Quantitative research is justifying a detailed phenomenon by gathering

numerical values that are viwed by using mathematical measures and methods. In this research we don't use data based on perception but data which includes range, statistical measures, frequencies and all numeric information.

#### 3.7 Data collection method

There are two methods the primary way to obtain data and the secondary data source. In this research we have used both the resources for data collection. The primary source includes the empirical methods to obtain information. The following are used to obtain data from cement industry Pakistan:

- Focus group
- One to one interviews sessions

In focus the data is been collected by certain people who are linked with cement industry they are distributer, consumer and political people. The discussion was been done in relaxed environment and the notes are taken by researcher. The data collected from this way was very useful from the point of view of ground realities that end user are facing.

In interviews the data collection is done through unstructured interviews, different topics are covered under this section. This method also had some telephonic interviews with managerial level employees in cement firms.

# Sources of secondary data

Secondary source includes the annual reports of firms, international reviews and research on cement industry and also financial report by SBP (state bank of Pakistan).

### 3.8 Sample selection:

Collecting data is time-taking and expensive activity, even for relatively small volume and variety of data. It is often hard that the complete or overall population will be examined. Because of the time and cost barriers the volume of data we collect will be limited to a certain level and the number of people or organizations we are able to contact will be specific according to approachability. The main purpose of this research as mentioned before, to review the financial position of cement firms and also the scope within the industry to investigate this important element is the impact of working capital management on firm profitability. In according with this objective select all 21 listed companies in Karachi Stock Exchange for the period of 2004-2012. Limitation of data collected: Total 29 companies are working in Pakistan under this sector but only 21 listed in Karachi stock exchange and authentic data available till 2012.

# 3.9 Data analysis

In this report both quantitative and qualitative data selection tools are been used. The empirical substances would be qualitatively examined in way to get the logical results on the research statement. Raw data is been collected from the ranked research views on the Cement sector Pakistan. Research articles, news, published matters are also used for the data gathering matter.

### Quantitative & Qualitative Data analysis

Design and creativity have always had an element of quantitative data. Designers have discussed width, height, dimensions and quantities. However, as the creative industries take on strategic challenges there is an increasing application of quantitative user research. This section introduces some of the more frequently used techniques for quantitative analysis and their application in research projects for the creative industries. Assessing the material is consistent and regular activity which provides us not only the solutions but also that on which route we should focus in our future concern activities. These methods helps us to pilot test the hypothesis which we have developed in the quantitative prospective. With using these approaches we can undoubted can convert the raw formed data into information and precious knowledge and also find the link exist in the association of variables. Qualitative analysis is the process of interpreting data collected during the course of qualitative research. It has prime worth to clarify the data but to also explain and justify the reasons of the process we are adapting. The verification of the data depends on its type. In qualitative research data you need to establish trustworthiness and to do this it must be accountable, auditable through verifying the transformation of results is transferable and reliable and confirmable. Accountability can be better by long linkage with the respondents. The results interpreted by regression analysis methods practiced depends on the form of the data selection method and how it is relative to the regression which is being used. Regression analysis relies into some range on building any assumptions about the method adopted. Sometimes it becomes difficult for researcher to test the entire hypothesis due to large scale of data.

## Hypotheses testing

The main motive of this research is to find about the financial condition of cement sector for this we need to understand the association and link between profits and working capital balance this report provide the testable hypothesis Null Hypotheses H0 versus the Alternate Hypotheses H1

## Hypothesis

The hypothesis to analyze the association:

HO: There is no link exists between the working capital/capital in process and profitability ratios of firms working under Pakistan cement sector.

H1: There exists a positive association between working capital/capital in process and profitability of firms working under Pakistan cement sector.

H2: There is no association exists between liquidity ratio and profits in firms working under Pakistan cement sector.

H3: There exist a negative association between liquidity and profits in firms working under Pakistan cement sector.

### Defining variables:

The independent and dependent variables that are used in explaining the hypothesis are following:

- Return on total assets ROTA
- Current ratio
- Net Current Assets to Total Assets Ratio:
- Quick ratio
- Inventory turnover in ratio
- Working Capital Turnover Ratio

According to Shim and Siegel (1998) working Capital turnover ratio explains how effectively capital in processes has been used and Inventory Turnover Ratio is the volume of how instant does inventory turned over in a one fiscal year it has association between Cost of Goods Sold and average cost of inventory. Other like current ratio develops the association between Current assets and Current obligations for which company is liable. Quick Ratio built association between the quick assets and current obligations of the companies. An asset is highly liquid if it can be converted into cash instantly. Next important ratio is return on asset it is the ratio which measures the company's income before paying interest and taxes against the total net assets owned by the company. The higher the income it mean in better the way assets are used. Last are net Current Assets to total assets it creates ratio a linkage between current assets and total assets of companies and shows the scope of total wealth invested for use as capital in process through Guides (2007).

# 3.10 Reliability

This term referred to that how many times and how many ways you have tried different approaches and that gives you the same result or outcome. Reliability in research means that how much you can keep your trust in your research or study. It assumed that if it is reliable you said then it must provide the same result if any study is conducted through different mediums but by relevant variables. Reliability can be measured by different testing or pilot testing like observations, questioners etc. but it repeatedly providing the same result. In other words we can say it should provide us with consistency in result. While conducting researches we can never assume that any research is reliable unless we verify its resources. In this report the true picture of cement industry can be seen as the reasons of the downfall and rise in cement industry have intensive factors that have valid realities in country's economy also.

## 3.11 Validity

Another important term is validity it is the existence or absenteeism of one or more eligible factors to represent results or to create interest. One of the uncomplicated methods to attest for criterion-related to validity is to examine the tool by a group that is known to portray the trait to be calculated. There are so much other ways of various kinds of validities which may include: content validity, face validity, criterion-related validity, constructs validity, factorial based validity, concurrent validity, convergent validity and unlike Validity of this research can be seen by the provided financial report by SBP (state bank of Pakistan) also the graphs of earing per share, the growth in industry and the profitability ratio.

## 3.12 Limitations of the Study

Due to the time frame and choice of the subject there were number of limitation faced by the researcher during the thesis.

- The report is dependent mainly on data of FY05 TO FY 10 that is why a
  explained results overlaying this long time duration which may come up
  with slightly variation in justification of results comparing to other
  researches which is because of limitation of time.
- Researcher was unable to find many researches on his topic within the scenario of Pakistan. So, therefore, researcher will be unable to compare its finding with other researches.
- Few studies have been made in relation to elements of capital edifice mainly in the cement sector in Pakistan. This is why the current findings are a maiden effort to assess the factors of capital edifice in the cement sector in Pakistan.

• This leering review would be depend on secondary data which is gathered from State Bank of Pakistan (SBP). Therefore, the quality of the study depends purely upon the accuracy, reliability and quality of the secondary data source. Approximation, and relative measures with respect to the data source might impact the results.

## 4) Findings

## 4.1 Findings from primary data

The summary of interviews conducted in different cement firms is discussed below:

- The first interview was conducting to CEO of Al-Abbas cement industry Ltd. He has shared his vast experience in cement industry. The discussion was based on the demand of cement domestically. He talk about the recent plant they have planted for the project PSDP it's a project which is started to meet the upcoming demand of cement domestically. This sector is getting developed on monthly basis the main reason is the improvement in infrastructure in Pakistan.Now what I have concluded with his opinion that there is a positive development in cement industry Pakistan this is not only because of the demand for cement it is also because Pakistan is self-sufficient in coal and other resources. The financial scope and opportunity is very high from last few years in Pakistan.
- Other interview conducted with CEO of Bestway cement Ltd talking about future outlook of cement sector he tried to explain the ambiguities in cement industry. According to him there is still need of improvement in policies regarding this industry to get maximum advantage from the opportunities available. Government overall policies are still not clear about various critical issue including the profit uplifts which can cause problem to cement industry. From this I found the need to improve the system regulations and policies implemented by the government in other words there is need to work on corporate governance and focused should be in concern of dispersed owners instead of concentrated system in Pakistan.

- Another discussion was done with Chief Information officer at D.G Khan Cement the main agenda throughout the discussion was profitability of their firm and the profits of whole industry. He said profitability is worthless if they don't keep the value of money provided by shareholders. Cement industry to expect the golden increase in shareholders wealth as well as in the country's income. The recent rise in the transportation cost for cement would notably increase freight cost for the local manufacturers of our country. If the Government of Pakistan did not compromised on the pronouncement or the additional burden would not transferred to the end user then this sector have to face many problems.
- In interview with director of Fauji Cement Ltd the importance of contribution of cement sector in GDP can be seen. The growth of economy related to GDP of the country added hugely to risen the demand for cement. This can be estimated by the growth moment that there is rise in demand as the economic variables show betterment in cement requirement growth varies to actual GDP growth matters with the cement exports and sale. Now what I have concluded with his discussion cement industry of Pakistan is contributing huge amount in the countries income. It is contributing 7% with the export of its best quality cement to country include Iran at the lead.
- The manager of Dewan cement was interviewed the main focus was on the vast opportunities available in this sector. Cement sector will hunt the moment of growth available in Pakistan's economy. From this it meant that whenever the GDP will increase it means the need for cement has also climbed. Addition to it the demand will enlarge in straight ratio. Additionally, the cement demand will grow in direct proportion to the expanded expense allotment by the government of Pakistan.

# 4.2 Regression Analysis

Simple linear regression analysis was conducted for some of the ratios return on assets (ROTA) with Current Ratio (CR), Quick Ratio (QR), and Net Current Assets to Total Assets Ratio (NCA / TA), Working Capital Turnover Ratio (WCT) and Inventory Turnover Ratio (ITR). Regression model is: ROTA = o +1 CR +2 QR +3 NCA / TA +4 WCT +5 ITR + £

# Data analysis:

Descriptive statistics of (21 listed companies of cement sector which are registered in Karachi stock exchange)

Variable	Mean	Std. Deviation
ROTA	6.3800	11.72284
CR	107.0300	69.48779
QR	97.0400	68.25649
NCA/TA	.2882	.13852
WCT	2.5601	40.71565
ITR	33.8812	56.34538

**Empirical results of dependent** Standardized Coefficients **variables**. Dependent Variable ROTA

	b-Value	t-Value	Sig
Constant		-2.611	.012
CR	3.319	3.326	.002
QR	-3.226	-3.293	.002
NCA/TA	.353	2.126	.038
WCT	109	974	.334
ITR	.135	1.141	.259

The result shows of these tables above shows the clear picture of association between dependent and independent variables which are identified by the regression model. Descriptive findings of statistics in table 2 and finding that are given in table 1 and 2 accordingly.

The finding shows the association link betwixt these dependent and independent elements that the written two ratios, current ratio and net current ratio have positive effect on total ratio and on industry's profitability. This means that while accounts receivables and inventory time duration gets longest then there is climb in profitability or the way round.

The other variables that have remarkable effects on companies' profits are that on how quick ratio affecting the variable negatively. It leads to that any change increases in stock leads profits to decrease. The other variables included are turnover ratio and inventory turnover ratio has no statistically effects on firm profitability.

#### Conclusion

This research purpose is to analyze the determinants of cement industry profitability, the variables linked along the balancing of in process capital with the zest for cement sector between the time duration of Y04 TO 10. While concluding the findings and regression results it could be suggest that the profitability of the undertaking may be increased by longer the time period of receiving.

The positive relationship between accounts receivable period and profitability can be reduced due to what customers want more time to evaluate the quality of products that purchase companies with profitable Deloof, (2003). However, this empirical conclusion conflicts with some financial models that explain the commercial credit. Trade receivables are generally cheaper Emery, (1984) negotiable short-term investments, it is logical that, above all, business high profit that are most liquid transfer relatively large amounts of commercial credit

to their buyers. Because, according to the theory of liquidity, liquids are less prone to commercial credit application and more likely to offer. Another empirical conclusion is similar; the negative relationship between period and inventory profitability and this may be the result of pressure on leaders in sales revenues to a level below and more inventories, as discussed in studio Deloof (2003). Lever is another variable that affect profitability negatively stops. This conclusion can be explained suggestions that competing companies are strongly mobilized sweeter that will limit investment Myers, (2003), therefore their power insufficient competition can lead to a decrease in profitability. Firms in Pakistan have greater volume of cash which they bring in working condition or put as in process capital. This is why it can be anticipate that the pattern in which this capital is maintained will have a relevant impression on cash inflow of those companies. It has been investigate that a notable negative association exist between net operating profits and the average collection time duration, inventory turnover in days, average payment period and cash conversion cycle for a specimen of Pakistan's firms listed under their Karachi Stock Exchange. These outcomes recommended that managers can justify the worth for their shareholders by decreasing the days of accounts receivable and of keeping inventory to an acceptable minimum period. The negative association between the payable and profitability ratio is constant with the vision that less profitable companies stay longer to reimburse their bills.

In the relevancy with the hypotheses we can announce that our alternate hypothesis that working capital or in process capital is balanced or maintained carefully than it would have appreciably effects on profits and Pakistani firms are those one to be accepted; and that why we refuses the null hypothesis. Exactly this way we accept this hypothesis that there exist a negative link between liquidity and profits of the firms that why we refused null hypotheses (H02). It can be seen that in Pakistan current ratio is the nearly more significance then liquidity ratios that affects profitability.

Here these firms need to adjust with these two aims so both of these ratios would need to experience hardship. The main focus should be put on wealth that is in working already which covers current assets, current liabilities, and finances. If the firms will understand that how to balance these correctly including their cash, accounts receivables and inventories in an accurate manner then obviously this will uplift their worth and profits. There are so much work needed to be forecast regarding in process capital/working capital in future for Pakistani companies. I would recommend that more study should be done, more research should start to analyze more clearly and also with more data of years should utilized for sample. The area of research may be enlarged to the working capital factors or includes its elements like cash, securities, receivables and inventory available with firms.

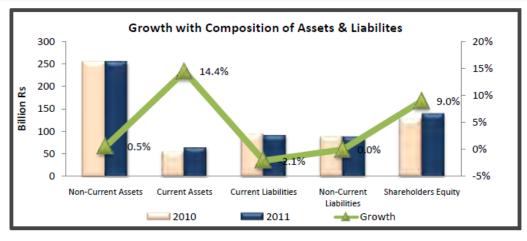
**4.4 Overall performance analysis of Pakistan's cement industry by SBP** (state bank of Pakistan)

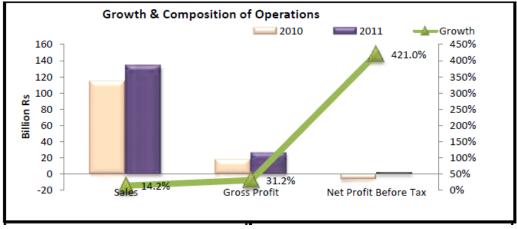
Cement - Overall					(Thousar	nd Rupees)
Items	2006	2007	2008	2009	2010	2011
A.Non-Current Assets (A1+A3+A5+A6+A7)	132,804,755	163,028,547	179,119,158	238,138,598	252,893,057	254,218,066
1.Capital work in progress	-	-	-	36,789,721	27,791,952	30,938,893
2.Operating fixed assets at cost	165,653,454	199,971,801	233,505,335	252,114,730	289,941,096	295,541,419
3. Operating fixed assets after deducting accumulated depreciation	132,365,472	162,986,267	179,090,168	189,017,987	210,949,962	199,444,748
4.Depreciation for the year	3,287,786	7,054,871	7,368,612	8,011,304	8,571,321	9,136,776
5.Intangible assets	439,283	42,280	28,990	1,164,285	62,813	73,765
6.Long term investments	-	-	-	8,220,202	9,834,373	11,181,341
7.Other non-current assets	-	-	-	2,946,403	4,253,957	12,579,319
B.Current Assets (B1+B2+B3+B4+B5)	43,579,592	64,948,539	85,454,020	53,237,536	54,691,900	63,916,553
1.Cash & bank balance	6,003,489	5,304,362	5,629,816	3,593,426	1,886,277	2,928,513
2.Inventories	2,701,960	4,221,748	6,259,443	8,838,242	7,044,531	9,386,389
3.Trade Debt	1,367,259	2,010,764	4,015,746	4,304,857	3,267,875	3,170,683
4.Short term investments	19,558,705	32,469,404	28,503,201	8,790,729	12,409,183	12,684,923
5.Other current assets	13,948,179	20,942,261	41,045,814	27,710,282	30,084,034	35,746,045
C.Current Liabilities (C1+C2)	43,401,030	60,025,504	77,604,012	82,656,967	93,050,549	91,139,876
1.Short term Secured loans	15,522,701	21,061,968	37,196,671	54,166,390	57,278,401	51,709,433
2.Other current liabilities	27,878,329	38,963,536	40,407,341	28,490,577	35,772,148	39,430,443
D.Non-Current Liabilities (D1+D2+D3+D4+D5)	57,371,942	64,291,977	65,372,228	89,326,711	88,005,814	87,987,161
1.Long term secured loans	-	_	_	53,117,385	56,696,881	54,461,526
2.Long term unsecured loans	-	-	-	4,419,344	3,530,598	6,050,252
3.Debentures/TFCs	4,904,612	5,260,825	12,796,715	14,949,680	14,764,800	11,833,000
4.Employees benefit obligations	-	-	-	576,102	640,683	775,065
5.Other non-current liabilities	52,467,330	59,031,152	52,575,513	16,264,200	12,372,852	14,867,318

3.Outor non-current liabilities						
E.Shareholders Equity (E1+E2+E3)	75,611,375	103,659,605	121,596,938	119,392,456	126,528,594	139,007,582
1.Issued, Subscribed & Paid up capital	35,785,663	42,396,793	55,909,628	56,689,291	58,277,252	67,239,445
i).Ordinary Shares	34,757,197	41,368,327	54,881,162	55,660,825	57,248,786	66,216,125
ii).Preference shares	1,028,466	1,028,466	1,028,466	1,028,466	1,028,466	1,023,320
2.Reserves	39,825,712	61,262,812	65,687,310	43,304,704	44,551,024	50,000,670
i).Capital Reserve	-	-	-	28,317,005	33,261,806	36,701,627
ii).Revenue Reserve	-	-	-	14,987,699	11,289,219	13,299,043
3.Surplus on revaluation of fixed assets	-	-	-	19,398,461	23,700,318	21,767,467
F.Operation:						
1.Sales	79,237,136	83,473,415	111,752,228	132,754,165	114,526,565	133,535,398
i).Local sales (Net)	74,355,399	75,106,250	88,896,079	89,750,783	74,788,742	97,267,642
ii).Export Sales (Net)	4,881,737	8,367,165	22,856,149	43,003,382	39,737,823	36,267,756
2.Cost of sales	56,955,203	73,361,455	100,879,207	96,648,470	96,320,698	107,062,578
i).Cost of material	-	-	-	13,760,456	15,797,490	16,488,498
ii).Other input cost	-	-	-	82,888,014	80,523,208	90,574,080
3.Gross Profit	22,281,933	10,111,960	10,873,021	36,105,695	18,205,867	26,472,820
General, administrative and other expenses	3,008,800	3,654,536	8,627,277	16,205,230	15,074,970	13,777,704
i).Selling & distribution expenses	-	-	-	10,752,560	11,319,326	9,743,024
ii).Administrative and other expenses	3,008,800	3,654,536	8,627,277	5,452,670	3,755,644	4,034,680
5.Salaries, wages and employee benefits	-	-	-	1,988,120	2,116,093	7,067,412
6.Financial expenses	3,064,713	5,853,171	8,680,088	15,490,916	12,563,351	12,988,752
of which: (i) Interest expenses	-	-	-	14,123,080	11,825,364	12,411,814
7.Net profit before tax	17,064,704	4,553,061	(4,509,355)	6,503,948	(6,488,307)	2,021,492
8.Tax expense (current year)	1,227,536	316,689	482,530	1,397,433	1,231,164	1,708,411
9.Total amount of dividend	2,270,198	1,266,644	648,108	7,098,039	8,072,235	1,683,180
10.Total value of bonus shares issued	687,530	0	117,052	882,864	0	C
11.Cash flows from operations	-	-	-	20,627,930	6,630,273	6,187,293
G.Miscellaneous						
1.Total capital employed (E+D)	132,983,317	167,951,582	186,969,166	208,719,167	214,534,409	226,994,743
2.Total fixed liabilities (D1+D3)	4,904,612	5,260,825	12,796,715	68,067,065	71,461,681	66,294,526
3.Retention in business (F7-F8-F9)	13,566,972	2,969,728	(5,639,993)	(1,991,524)	(15,791,706)	(1,370,099
4.Contractual Liabilities (G2+C1)	20,427,313	26,322,793	49,993,386	122,233,455	128,740,082	118,003,959
H.Key Performance Indicators						
1.Acid test or quick ratio[(B1+B3+B4) to C]	0.62	0.68	0.49	0.20	0.19	0.2
2.Financial expenses as % of sales (F6 as % of F1)	3.87	7.01	7.77	11.67	10.97	9.73
3.Trade Debt as % of sales (B3 as % of F1)	1.73	2.41	3.59	3.24	2.85	2.3
4.Assets turnover ratio [F1 to (A+B)]	0.45	0.37	0.42	0.46	0.37	0.42
5.Current ratio (B to C)	1.00	1.08	1.10	0.64	0.59	0.70
6.Cost of goods sold to sales (F2 as % of F1)	71.88	87.89	90.27	72.80	84.10	80.18
7.Debt equity ratio [(C+D) to E]	1.33	1.20	1.18	1.44	1.43	1.2
8.Retum on assets [F7 as % of avg.(A+B)]	11.81	2.25	-1.83	2.34	-2.17	0.68
9.Retum of equity (F7 as % of avg. E)	27.08	5.08	-4.00	5.40	-5.28	1.52
10.Return on capital employed ( F7 as % of avg. G1)	15.91	3.03	-2.54	3.29	-3.07	0.92
11.Dividend cover ratio [(F7-F8) to F9]	6.98	3.34	-7.70	0.72	-0.96	0.19
12.Inventory Turnover Ratio (F1 to B2)	29.33	19.77	17.85	15.02	16.26	14.2
13.Interest cover ratio [(F7+ F6(i)) to F6(i)]	-	-	-	1.46	0.45	1.10
14.Net profit margin (F7 as % of F1)	21.54	5.45	-4.04	4.90	-5.67	1.51
15.Operating cash flow to debt ratio [F11 to (C+D)]	0.00	0.00	0.00	0.12	0.04	0.03
16.Earning per share after tax (Rs./share) [(F7-F8)/No. of Ord. shares]	4.56	1.02	-0.96	0.92	-1.35	0.08

This overall statement provided by SBP State bank of Pakistan is analysis of multiple ratios that are necessary to assess financial health of any industry. We can see the massive increase in the investor returns through shareholders equity in cement sector from this statement in year 2006 it was 75,611,375 (000) and in 2011 it become investment of 139,007,582 (000). Next noticeable figure is of gross profit which was 22,281,933 (000) in 2006 and it climbs up to 26,472,820 (000). There are some other ratios which are not increasing but if we see the long term analysis then this sector is producing profits for country if not rising over yearly but a certain increase is there. The reason of decrease in profit margins are because of devaluation of Pakistan's currency, inflation within the country and the cost of production have risen too much because of

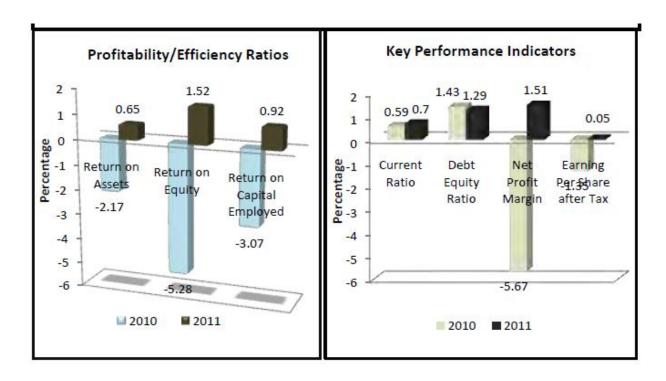
fuel crisis and electricity crisis well about these important factors we have talked about in concern areas of our research.





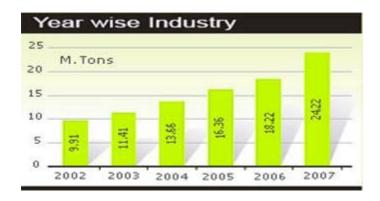
The diagram explain the growth in industry's assets and liabilities of recent years the current assets have increased which caused growth of 14.4%, the liabilities reduced in year 2011 with 2.1% and shareholders' equity have risen with 9%.

In other diagram its graph is showing increase in gross profit with 31.2% and also the rise in sales with 14.2% the sale of cement industry also includes the quantity of cement exports from Pakistan.



These graphs are analysis by SBP state bank of Pakistan to measure the efficiency and ratios including current ratio, debt to equity, profits and EPS. In 2011there is a positive effect of all but only a decrease in debt equity ratio this is related to leverage it measures the risk associated with investors' money.

The graph below is describing the accumulated production patterns of cement industries in Pakistan. From year 2002 to 2007 there is a vast increase in the production of all kind of cement.



## 5) Discussion and Conclusion

In conclusion I would like to share my experience of this research after business analysis of different firms in cement industry what I found in Pakistan is first the future expectations from this sector are very high and cement manufacturing firms are showing the rising trends from past years which can easily view through different indicators like demand of Pakistan cement in all over the world, their export patterns, annual increase in the production of cement, its contribution to GDP etc. the 21 listed company on Karachi stock exchange are performing very well from all aspects. Investors in Pakistan are highly satisfied with their investments and returns they are receiving. There is fruitful relation exists in the cement sector of Pakistan with its stakeholders. Cement sector is paying taxes and duties according to policies of government but this is although increasing the cost of production of these firms, the bad side of this sector is that the ultimate burden is preferred to put on to end consumer which should not be done. The main factor which has significant importance in the rise and decline in any cement manufacturing firm is its working capital. Working capital is a necessary availability of funds to run the operations related to manufacturing of cement to its distribution. While conducting this research I have seen the firms with hostile working capital have low profitability.

In accordance with All Pakistan Cement Manufacturers Association (APCMA), the capacity of cement that is freight to local and international markets is 10.474 million tons in July-October 2012, against 10.436 million tons in the previous year with this the amount of exports have decrease but does not affect the overall sales because the sale within the country recompensed. The reason of its massive usage in Pakistan is the improvement in their infrastructures. The building of societies, dams, roads, and bridges have created more need for

producing cement if they continuously want to make their exports as they do before. Some large companies have explained more than 30 percentile gross profit for fiscal Y12 and the establishment department of infrastructure announced the huge achievement in business capacity at KSE between the week that have ended on November 2nd . These are not just registered cement firms that are paying qualified dividends but remaining institutes or firm's becoming more expensive regularly. Through this the reduction in excise duty had bring 3% rise in sales.

What I have found while conducting this research about Pakistan cement industry had very changed experienced from researches done before 2005 because onwards from 2005 the situation was very different the industry was enjoying profits, the ups and down in some recent years are because of the overall condition of country which includes the shortage of power generation plants, the devaluation of their currency, the shortage of fuel within the country, the less innovations and low budget allocated to research and development department. These are some of the factors which directly effect on production based industry but then as this industry in enriched with resources and have quality cement production so this sector have stand up with reputable profits and its contribution in Pakistan GDP. If we look at recent situation then establishment firms that are working to improve infrastructure and NGOs in Pakistan are focusing on rebuilt those places and residential areas that were by flood. The chairman of APCMA demolished in Y2010 MR. Aizaz Mansor said that it is fact that we have really seen a massive increase in construction soon in future.

In the light of all the research I have gone through and after analyzing this industry from different point of views I would add my contribution through some suggestions that I found are important and needed by keeping these changes and upgrading some following important factors in view which are financial prospective, can create opportunities for invertor, contribution in economy, tax authority importance and trade development role in industry.

- Now a days as everything has become so advance from technological point of view I found that the Cement industry is also not dependent on labor 100% but in Pakistan there is a great capacity to improve the cement sector by implementing new plantation, new technology for energy restoration and they should take their processes towards automation. If firms in any sector don't update their technologies or won't bring change in their old patterns then at the end they got obsolete or have to face declines.
- Major crisis for this industry is shortage of electricity in Pakistan to overcome this energy crisis Government of Pakistan should take some steps otherwise this problem will bring down not only cement industry but all other industries as well. For this dam should be built to provide sufficient power to cement sector.
- Cement sector of Pakistan needs to invest in their R&D department to remain in competition they need to find what technological changes they have to introduce in their firms, they also need to find new types of cement to fulfill the requirement of modern infrastructure constructions.
- Government of Pakistan need to bring change in the tax policies, they
  need to keep checks on their system. After this detail research I came to
  know about the last year tax relief in cement industry to consumer which
  was reduction in excise duty to offer low price to end consumer but

- unfortunately the systems are so weak to keep the compliance or transparency that prices remain constant in market for end consumer.
- Pakistan in known for high quality cement provider but there is demand for a cement type which is alkali it is used in projects which required low heat of hydration cement if they begin to manufacture this then there will be a greater increase in profitability of cement manufacturing firms.
- Public and private firms are involve in export of cement at large scale but the problem is that the country's own firms are competing for exports they need to create alliance or networks in such way through which they can develop the cement sector and export in a holistic way.
- The Trade Development Authority of Pakistan is agreed to provide funds to ICMAP for research purpose, so that they can improve their working patterns, follow up new techniques and can find more ways to get maximum profits and can contribute more in GDP. So they should take advantage of this and should develop research department soon.
- Huge sum of amount is earned through exports of cement; recent exports are 7% of total production of cement in Pakistan. The infrastructure in developing or transition economies are improving so if they explore more markets to export then it would be beneficial for financial health of this sector.
- If we talk about marketing of products or aspects from marketing point then we know that market aspects are very important and are directly influence with success of firms Pakistan Cement industry has no marketing vision they must focus on marketing aspect to use the enhanced capacity.
- In Pakistan the "Saeth organization system" which is family owned business they also have political influence and decisions are made for individual benefits rather than organizational benefits. Cement manufacturers should focus on developing their long-term vision for

- organizations and strategy for their industry to improve production with use of effective resources.
- Government, of Pakistan should take initiatives to correlate the microlevel initiatives and small firms with macro tools and environmental effects so they can make sure transparent and effective compliance with industrial policies.
- After study the cement sector I found that working capital and involvement of management has significant importance in this manufacturing industry so if management staff plays their role in helping the cement industry to reduce the cost of production, try to avoid production losses and keep their focus more on increasing profits instead of labor issues in factories which is one of major reason of losses in production firms in Pakistan.

#### List of References

Ahmed Imran et al. (2013). Impact of Micro Economic Variables on Firms Performance. International Journal of Economics and Empirical Research

Attaullah Shah and Safiullah Khan. (2007). Determinants of Capital Structure: Evidence from Pakistani Panel Data. International Review of Business Research Papers. 3 (4), 265-282.

Abdul Ghafoor Khan. (2012). The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan..International Journal of Accounting & Financial Reporting (IJAFR). 2 (18), 245-262

Ali Raza Mehdi. (2014). Tepid growth in cement sector. Available: http://www.dawn.com/news/1080191/tepid-growth-in-cement-sector. Last accessed 1st May 2014.

Ahmad Raza, N. (2009). Interdisciplinary Journal of Contemporary Research In Business. Interdisciplinary Journal of Contemporary Research In Business, (Vol. 1, no. 1).

Ali, H. (2014). Projected Industrial development of Pakistan, ROyal society of arts, 98, 726-742.

Bhanu, V. (1995). Economic and political weekly, Liberalisation and performance of cement industry, 30, 111-116.

Bilal, A. R., Naveed, M., &Taliv, A. (2011).IMPACT OF WORKING CAPITAL ON PROFITABILITY OF CEMENT SECTOR OF PAKISTAN. Interdisciplinary Journal of Contemporary Research in Business, ;Nov2011, Vol. 3 Issue 7, p661.

Bilal, Ahmad Raza; Naveed, Muhammad; Abu Taliv, Noraini.(2011). IMPACT OF WORKING CAPITAL ON PROFITABILITY OF CEMENT SECTOR OF PAKISTAN.Interdisciplinary Journal of Contemporary Research in Business.3 (7), 661.

Business Recorder.(2014). Lucky Cement Limited. Available: http://www.brecorder.com/brief-recordings/0/1246753/. Last accessed 1st May 2014.

Business Recorder.(2013). Attock Cement Pakistan Limited. Available: http://www.brecorder.com/brief-recordings/s:/1244157:attock-cement-pakistan-limited/. Last accessed 1st May 2014.

DAWN. (2013). Good times roll for cement industry. Available: http://www.dawn.com/news/1023550/good-times-roll-for-cement-industry. Last accessed 21st Apr 2014.

Dr.V.Sarangarajan, Dr.A.Ananth&Dr.S.A.Lourthuraj.(2013). International Journal of Advanced Research in Management.INTERNATIONAL JOURNAL OF ADVANCED RESEARCHIN MANAGEMENT (IJARM). 4 (1), 34-44

Farhan Rizvi. (2012). Pakistan Cement Sector. Available:

http://www.mrsecurities.com.pk/PakistanCementSector.pdf. Last accessed 1st May 2014.

GoronGoldkhul. (2012). Pragmatism vs interpretivism in qualitative

Gupta, G. (1975). economic and political weekly. Economies of scale in cement industry , 10, 551-556.

Hussain, M. N. (2001, july). Interdisciplinary Journal of Contemporary Research In Business. Impact of Capital Structure on Stock Price of Cement Sector in Pakistan.

Hilary Collins (2010). The theory and Practice of research for the creative industries. New york: AVA Publishing. 34.

Investor Guide. (2013). Cement Sector: March 2013 registers highest ever monthly sales – JS Research. Available: http://investorguide360.com/tag/cement-sector-2/. Last accessed 25th Apr 2014.

information systems research. European Journal of Information Systems. 21 (2), 135-146.

Majid Khan and Abdul Majid. (2013). The Effect of Corporate Social Responsibility on Profitability and Market Share: A Case of Cement Industry of Pakistan. Academic Journal of Management Sciences. 2 (1)

Mobeen Ur Rehman, N. A. (2013). DETERMINATION OF THE IMPACT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY: AN EMPIRICAL STUDY FROM THE CEMENT SECTOR IN PAKISTAN. Asian Economic and Financial Review, 3(3):319-332.

NBP.(2013). Strategic Position. Available: www.NBP\_StrategicPos-2013.pdf. Last accessed 22nd April 2014.

Pakistan Financial & Economical Analysis. (2013). Cement Sector Analysis February 2013. Available: http://pakistanbuz.wordpress.com/2013/05/05/cement-sector-analysis-february-2013/. Last accessed 1st May 2014.

Pakistan Times. (2014). Partnership: DG Khan Cement interested in acquiring Lafarge. Available: http://webcache.googleusercontent.com/search?q=cache:http://pktimes.4com.co/tag/cement/. Last accessed 1st May 2014.

Pearls Securities Limited. (2014). Research Report Archive. Available: http://www.pearlsecurities.com/ReportsArchive.aspx. Last accessed 20th Apr 2014.

Pradhan, G. (1992). Concentration in cement industry under new policy regime.economic and political weekly, 27, 31-38.

Reports and Projects. (2012). Cement industry of pakistan. Available:

http://exportpakistan.blogspot.com/2012/04/cement-industry-of-pakistan.html. Last accessed 20th Apr 2014.

Sajid Gul and Shafiqurrehman. (2014). Determinants of Pakistan's Export Performance.Pakistan Business Review. 14 (4)

Salman, A. M. (2012). International Journal of Organizational Innovation (Online). CHOICE BETWEEN DEBT AND EQUITY AND ITS IMPACT ON BUSINESS PERFORMANCE, 5, 284-295.

Study mode. (2014). Financial Leverage Vs Other Income In Cement Industry Of Pakistan Essays and Term Papers. Available: http://www.studymode.com/subjects/financial-leverage-vs-other-income-in-cement-industry-of-pakistan-page3.html. Last accessed 21st Apr 2014.

Sagepub. (2014). An introduction to Research. Available: http://www.sagepub.com/upm-data/29985\_Chapter1.pdf. Last accessed 1st May 2014

S.M Aqil Burney.(2008). Inductive and Deductive research approach. Available: http://www.drburney.net/INDUCTIVE%20&%20DEDUCTIVE%20RESEARCH%20APPROACH%200603 2008.pdf. Last accessed 1st May 2014.

Tariq, H. (2013). Working Capital Management and Firm Performance Evidence from Pakistan. European Journal of Business and Management, 5 no 20.

The Relationship between Working Capital Management and Profitability:, ISSN 2039 - 2117 (May 2011).

Working Capital Management And Profitability - Case Of (March 2007).

Yasir Ali. (2012). The contribution of cement industry in the economic development of Pakistan. Available: http://www.dgtrdt.gov.pk/research/38th\_syndicate\_reports/4.pdf. Last accessed 1st May 2014.