Relationship between Financial Leverage and Financial Performance (Evidence of Listed Chemical Companies of Pakistan)

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Abstract
Chemical industry is one of the most Important and main industry of Pakistan. Many local and Multinational companies are producing chemical products which not only cater the local needs but also earn profitable returns as a result of International exports. A general concept exists that financial leverage has significant impact on the financial performance of the companies. This study is also conducted to find out the relationship between financial leverage and financial performance of listed chemical companies of Pakistan. The results of the study show a positive relationship between financial leverage and financial performance by accepting alternate hypothesis H1 and rejecting null hypothesis Ho. Hence chemical sector companies can enhance their financial performance and profitability margins by having a significant proportion of leverage in their capital structures.
Keywords: Financial Leverage, Financial performance, financial ratios, Chemical sector companies in Pakistan

1. INTRODUCTION

Financial leverage is referred to capacity of an organization in using borrowed money. Financial leverage can be explained as a proportion to which a company uses fixed income securities such as debt and equity. As financial leverage is increased, finance cost is also increased as a result. In the result of high finance cost earning per share is also affected negatively. As EPS decreases because of high Interest payments as a result of increased financial leverage. Past studies conducted show a positive relationship between financial performance and financial leverage while other shows negative relationship between financial leverage and financial performance. This Research is also conducted to find out Relationship between financial Performance and financial Leverage.

World's Chemical industry is a standout amongst the most profitable segments in assembling with a yearly turnover of US $1500 billion give or take. Fundamental Countries in chemical assembling are USA, Japan and Western European nations. Whereas the emerging countries in chemical manufacturing are China, Eastern European and Eastern Asian countries, Western Europe is the world leader in Chemical manufacturing industry which has 36% share of total chemical sales. Leading global companies in chemical manufacturing are AKZO Nobel, Sumitomo Chemical, Mitsubishi Chemical, BASF, Degussa, Shell, ICI, BP, DuPont, Dow Chemical, Exxon Mobil, Bayer, Total FINA Elf and Mitsui Chemicals.

Economically chemical market is divided into four main categories:

Basic Chemicals which are the merchandise materials including Petrochemicals, adaptable material, Polymers, and different subsidiaries and inorganic chemicals which makes 10. 35-37% of the synthetic business sector

Life Sciences Incorporate separated synthetic besides natural substances, pharmaceuticals, wellbeing things, and yield protection

Specialty Chemicals These are high esteem included chemicals with assorted finished item showcase. Items incorporate modern gasses, electronic chemicals, cements, sealants and impetuses. Forte Chemicals are frequently alluded to as "fine chemicals" make 11.20-25% of the chemical market.

Consumer Products incorporate cleanser, cleansers, and beautifiers that make up 10% of chemical market.

1.1 Background

In Pakistan Chemical Industry is one of most seasoned working part, which have been delivering the essential compound items to cater the need of society. With the liberalization in 1990s Pakistan substance industry was presented to global rivalry, import substitution approaches, protection of high levies ,decreased parts of government, protected innovation rights, licenses, and so forth and moving of industry from generation of essential chemicals to petrochemicals, pharmaceuticals, strength chemicals, development chemicals, dyestuffs, paints and Agrochemicals and so on. As the years progressed, some standard sections have made, however the Chemical Industry in Pakistan is still at an amazingly early stage. In right on time 50s, Pakistan Industrial Development Council (PIDC) was created by Government, for industrialization of the nation. Accordingly an expansive substance domain comprising of Maple Leaf Cement, Antibiotics (Penicillin), Pak American Fertilizers, and Pak Dyes & Chemicals was secured at Iskanderabad (Daudkhel), region Mianwali. This space had key impact and served as a center for substance industry in Pakistan. Presently Pakistan's Chemical Industry is orchestrated into two segments. 1) Primary Sector 2) Secondary Sector Essential part organizations are at a significant scale. They are capital genuine business wanders that incorporate refineries, customary gas, petrochemicals, metallurgical and assignments centered on mineral. They similarly supply feed stocks to the helper substance industry. Optional commercial ventures are centered on nourishment stocks which are either decided from vital section of business undertakings, or other differing wellsprings of rough materials. These business endeavors are less capital genuine and they are centered around high, medium or less dynamic advances. Pakistan chemical industry is across the board. Synthetic imports constitute 17% of aggregate imports. Pakistan has made important progression in essential inorganic chemicals like Soda Ash, Caustic Soda, Sulphuric Acid and Chlorine and has procured sufficient creation breaking purpose of these chemicals to cook for the needs of the range business, while surplus is always conveyed. Indeed a few difficulties need to be stood up to. The chemical business of Pakistan is lingering behind because of a few difficulties. The principle test is that it needs to rely on its imports rather than outside materials. It doesn't benefit the economy and realizes era of unreasonable things. Also absence of mechanical base and innovation in Pakistan brings about low quality items which don't stamp the standard. Additionally the predisposition technique of worldwide gathering does not facilitate the Pakistan market into the all inclusive economy and Pakistani things are not offered access to the overall business. Furthermore the nonattendance of benefits and weak trade systems of the administrations likewise bring about the debilitating of synthetic industry.

With a specific end goal to further develop Chemical Industry Pakistan need to receive confidence strategy. As opposed to depending on outside plans and building it must enhance it assembling procedures and create best quality substance themselves. Pakistan must work towards composed technique. It must bring four universes of an overall population together which are vendors, schools, and creative work and creation associates. This will bring headway and must utilize its adolescence which has new identities and exceptional arrangements to enhance the creation business achieving qualitative and quantitative perfection in the substance things. Pakistan is fit for creating high mechanical items everything it needs an exertion in change of regulatory capacities and actuation of new innovation and backing from government to keep things running in best conceivable ways. The Contribution of Chemical and petrochemical items altogether fares of Pakistan are around 8-10%.

On the International scale it is hard to concur on regular meaning of synthetic industry over the nations. As per production of Prospects of Chemical industry in Pakistan filaments Rubber and plastic handling can be either included or prohibited. Nations that have an utilization of fiber in concoction industry are Germany, UK, Italy, Spain, Netherlands, Austria, Finland, Norway, Ireland, Portugal, Greece, Sweden, and Poland. Nations

Barring fiber use in compound industry are France, Denmark and Belgium. Belgium likewise incorporates elastic and plastic items in the meaning of substance industry

It can likewise be perceived that in neighboring nations of Pakistan and in Middle East nation's colossal limits for petrochemical assembling are accessible. Master's feeling that a Petrochemical Complex ought to have been built when the levy assurance was Highest However different means and ways ought to be found, as setting up of a Petrochemical Complex that would bring about several downstream little and medium Enterprises

Concoction area is broadened and spreads an endless scope of items.

Taking after are the significant finished items under this division:

Petrochemicals, pop cinder & sodium Bicarbonate, harsh pop and chlorine, manures, Textile and tannery chemicals, paints and varnishes, water treatment chemicals, oleo chemicals ,manufactured filaments, sulfuric corrosive and different acids, Alcohol from Molasses, natural chemicals, pesticides, colors and shades, plastic and gums,

Also cleansers, cleansers and beautifiers, nourishment chemicals, paper and paper board, key oils

1.2 History

After independence 1947, Pakistan had negligible industrial base. For the past 55 years, the Pakistan has gone through a structural change form an agrarian economy to a semi-chemical industrial state. Currently Pakistan is manufacturing many household products like, soap, detergents, glasses, plastics, fibers, paint varnish etc. Heavy industry like iron, cement, fertilizer, paper, and textile are also on the road of development. Natural resources are being wasted with the increase in population and growth trend in the standard of living all across the globe. To overcome this situation, scientists and technologists are busy in the development of the Substitute materials from cheaper and reversible sources e.g., the natural fibers like cotton, silk, wool cannot meet the clothing requirements of the world; therefore, scientists have developed the artificial fibers. Similarly, crop yield has been increased by the development of pesticides, fertilizers and herbicides to meet the world's requirement of food. All these materials require their chemical preparation on industrial scales. In fact the magnitude of chemical industry of country is a measure of its economic development and progress. Chemical industries like cement, paper and fertilizers are growing at very rapid rate and will be fruitful for the country in upcoming years. In 1960s, another private sector chemical complex was established at Kala Shah Kaku, Lahore. Chemical manufacturing plants additionally began rising at Karachi because of the Investor friendly approaches which offered certainty to the financial specialists.

There are 34 Listed Chemical Companies at Karachi Stock Exchange. Major chemical companies are located in Karachi, Lahore, Multan and Faisalabad.

1.3 Key definitions

Financial Leverage: Financial leverage can be defined as the extent to which an Investor or a business is using the borrowed money. Companies that are highly levered are at risk of going into bankruptcy if they fail to pay Interest on the Debt and will not be able to get loans in future time period. Financial leverage is not often considered as negative indicator for the company. It can increase the wealth of shareholders of the company and there is also tax advantages associated with borrowing leverage. As financial leverage is increased, finance cost is also increased as a result. In the after math of high finance cost earning per share is also affected negatively. As EPS decreases because of high Interest payments as a result of increased financial leverage

Financial Performance: Financial performance can be characterized as a level of execution of a business over a determined time of a period. Communicated regarding general benefits and misfortunes amid that time It is measured in connection to possessions, value and obligation utilized by the organization. Assessing the monetary execution of business permits chiefs to make judgment on the consequence of business methods and exercises in the destination financial terms

1.4 Problem Statement

Affect of financial leverage on financial performance

1.5 Research Objectives

Study the effect of financial leverage on financial performance

Investigate whether financial leverage has an effect on financial performance by Taking evidence from listed Chemical companies of Pakistan

1.6 Significance of the Study

It is an opportunity for us to explore the aforesaid topic with reference to chemical companies listed in Karachi Stock Exchange. There had been little research work on topic Relationship between financial leverage and financial performance in Pakistan with reference to chemical companies. Companies take financial leverage as the performance booster but they are not aware of the fact that finance cost associated with financial leverage can have negative effects on profitability of the firm plus it can also hit the Earning per Share of shareholders if cost of capital rises more that Profitability of the company. In view of the following facts this research will be very helpful for the Chemical firms to analyze their financial needs and to what capacity they should employ leverage, to have favorable returns for Shareholders and to gain a healthy performance.

In this research size of sample consisted of 20 listed Companies from chemical sector of Karachi stock exchange. This study is conducted to find out the relationship between financial leverage and financial performance. The dependent variable used in this study is financial leverage which will be measured by using debt to equity ratio whereas the Independent variable used in this study are financial performance of listed chemical companies at Karachi stock exchange. Independent variable will be measured by using ratios ROA, Net profit margin, ROE and ROCE. Results will show the degree of relationship between financial leverage and financial performance.

2. LITERATURE REVIEW

Syed Shah (2013) employed a sample of 35 listed companies from Food Producer sector of KSE. The research was conducted to find out the Relationship between financial leverage and financial performance. The main variable used for test of Hypothesis Comprise of Independent variable which is financial leverage whereas dependent variable is Financial performance of listed sugar companies at KSE. Debt to equity ratio was used to measure financial leverage whereas financial performance is measured using Return on Asset, Earning per share, Net Profit margin, Sales growth and return on equity. Results of the study show mix results. There was positive relation of debt to equity ratio with return on Asset and Sales growth and negative relationship of debt to equity ratio with Earning per share, Return on equity and Net profit margin. Hence Sugar Companies listed at Karachi Stock Exchange can enhance their financial performance by having leverage up to a significant level and can play their part in uplifting the country's economy.

Rajni Saini (2012) conducted a study on Impact of Financial Leverage on Shareholders Return and business sector underwriting from the Indian Telecom part organizations. Study period consisted of years 2004-05—2010-11. Hypothetical framework comprise of Independent variable as financial leverage and dependent variable comprise of Shareholder return & market capitalization. The population includes 7 companies of Indian

Telecommunication Industry. It was concluded that a Positive Correlation is found between budgetary influence and shareholders return for Telecommunication Industry and negative connection is found between monetary power and business promotion for telecom Industry. The total valuation of a firm can be Increased by the different bounding of three variables as Financial leverage, Shareholder return & market capitalization.

Al cock et al. (2013) explored the Effect of Financial Leverage in the performance of private equity real Estate funds. he inspected the short & long haul effect of monetary power on execution of private value land venture supports by taking specimen of private equity real estate funds from the period 2001-2011.Data was obtained from Property funds Research (PFR).Data on the Underlying Direct real estate market return was obtained from IPD. To examine the hypothesis in the study they used single factor market model augmented by style interactions, Main effect of leverage, Timing effect of leverage and alternative timing effect of leverage. The results indicate that store execution is practically straightforwardly social to profit for underlying land market, meaning that fund manager effectively tracks the performance of their target markets. Further results show that Influence can't be embraced as a technique in the long haul to upgrade execution.

Akinmulegun Sunday Ojo (2012) had researched the Effect of financial leverage on corporate execution of some chose organizations in Nigeria. He endeavored to compare prior discoveries that were particular of created countries. Econometric procedure of Vector Auto Regression (VAR) model was executed to analyze the effect of power on Earning Capacity & obviously the execution ability of corporate firms. Information was utilized between the years 1993 & 2005.var model was made out of two situated of variable, Leverage was measured by obligation to value and proportion of firms & corporate execution was spoken to by Net Asset for every offer & EPS. The results demonstrated that Leverage stuns have generous impact on corporate execution particularly when Net Asset for every Share is utilized as an Indicator of corporate execution in Nigeria over the Time period secured by the study. Likewise comes about uncovered that Leverage stun on EPS straightforwardly influences Net Asset for every Share of firm as heft of stuns on NAPS was gotten from EPS of firm. Capture Vector is certain with Net Asset for every offer while it is negative with EPS & influence. The exact Observations on influence conduct in created countries would not be satisfactory substitutes for such conduct in Nigeria & couldn't be utilized to clarify the Empirical substances in the creating countries on the planet. Along these lines the Importance of Indigenous perceptions can't be over accentuated.

Akhtar et al. (2012) has observed the Relationship Between financial performance and financial leverage by taking evidence from Fuel & energy sector of Pakistan. Her study was intended to measure the effect of financial leverage on financial performance of the fuel and energy companies. Sample size of her exploration comprised of 20 open constrained organizations from fuel and vitality division recorded at Karachi Stock Exchange and time period comprise years 2000-2005.Financial Leverage was taken as Independent variable whereas financial performance of fuel & energy sector was taken as dependent variable. SPSS Software was utilized to focus the huge relationship among the variables. Results showed that relationship between financial leverage and financial performance was positive when we made a comparison of obligation to value degree with the greater part of monetary execution pointers. On the other side equipping proportions display the majority of connections on negative side with the power pointers. Overall findings of study revealed the positive relationship between financial performance and financial leverage. Thus Fuel & energy sector companies in Pakistan can have profitable outcomes while moving in leverage terms.

Moses and John (2014) quantify the impact of money related influence on monetary execution of deposit taking savings & credit cooperative in Kenya. Study was an attempt to investigate the impact of influence on execution of store taking Saccos in Kenya. They adopted the Analytical & descriptive designs for research and the correlation analyses was done using Pearson's correlation method. SPSS was brought in to play to find out the significant relationship among variables which consisted of financial performance as dependent & financial leverage as independent variable. Study time period comprise of years 2010-2012.Outcomes of the research showed that there is strong correlation Financial performance of Saccos in Kenya & the financial leverage. Pearson correlation b/w debt to equity ratio & variables was 0.994 and exhibited a strong relationship between the two variables while on the other side Pearson correlation b/w debt to equity ratio & profitability variables was 0.662 and showed strong relationship b/w the variables since Sigma 2 tailed value $S < 0.05$.

Hence it was concluded that there is positive relationship between financial performance and financial leverage which was conjectured in H1.

Hasan Ahmed Al-Tally (2014) in his research work on An Investigation of effect of financial leverage on firms financial performance in Saudi Arabia's public listed companies has demonstrated that since the Incorporation of Saudi stock market in the year 2003, corporations have been in the position to substitute equity for more debt. Since the day new banks have entered the Saudi financial market; Corporations came into position to borrow more funds from the banks. This research was conducted to further enhance the understanding of how financial leverage operates in no Interest based financial system of the country & how it may affect the financial performance. Study has examined the 57 publicly trading firms listed in Saudi Arabian stock market between the years 2002-2010.His Study was an attempt to further extend the understanding regarding previous literature on how financial performance is linked to financial structure Zakat (Islamic Tax) and the sizes and ages of Saudi Arabian firms in a no Interest based financial system. His study attempted to provide a new theoretical view on the traditional capital structure theories notably the Trade off & Pecking order theories. Independent variable used in the study was financial leverage & zakat whereas financial performance was used as dependent variable. Descriptive & Inferential Statistical techniques were brought into play including maximum & mean factor analysis, standard deviation, ANOVA and SPSS Software was utilized to focus the noteworthy relationship among the variables. Overall results concluded that in the long term in the absence of acute economic downturns, lower leverage tend to lead to higher returns on both Assets and equity and leads to higher profit margins. It also brought in to view the evidence that Saudi firms could attempt to enhance their financial performance by balancing their Zakat liabilities with leverage borrowing trends. A separate research is required to examine the effects of Zakat on capital structure and financial performance for each sector may provide In-depth knowledge regarding this relationship.

Perinpanathan Rajkumar (2014) .Srilanka had examined the Impact of financial leverage on financial execution with extraordinary reference to John Keells holding plc in Srilanka. John Keells holding plc is the biggest recorded Company in Colombo stock trade having joined in ahead of schedule 1870's as a produce and trade brooking business by two English men named as Edwin & George john. To test the hypothesis and relationship between dependent and Independent variables, data of John Keells plc was taken from period 2006-2012.NP ratio, ROE; ROCE is used to measure dependent variable whereas Debt to equity ratio was employed to measure Independent variable. For identifying the pattern of relationship between financial leverage & financial performance correlation and regression analysis were adopted. Correlation analysis displayed a strong negative relationship of -.789 between the variables at significance level of 0.05.ANOVA test was also brought into play. Finally it was concluded that there is negative relationship between financial performance and financial leverage. Hence if John Keells wants to maximize its financial performance it has to adopt the policy of minimum debt capital in their capital structure.

Somayyeh Mahmoudi (2014) .Iran presents an empirical insight on the effect of leverage on cement industry profitability. The study was an attempt to highlight the crucial issue that the managers are confronting today, that how to choose the combination of debt & equity to achieve the optimal capital structure that would minimize the firms cost of capital & improves returns to the business owners. Using leverage on capital structure as Independent variable and profitability as dependent variable and time period comprised of years 2008-2011.They used descriptive and regression models to test the theory. Results of the exploration demonstrate that there is critical negative relationship between firm’s profitability & leverage. It was evidenced through this research that top management of every firm should be focused on making prudent financing decisions in order to remain profitable and competitive and therefore managers should realize to what extent leverage had an influence on the financial performance.

Anup and Suman (2010) has researched on the Impact of capital structure on the firm’s value (evidence from Bangladesh).An attempt has been made empirically in this study to support Modigliani Miller argument of Impact of obligation value proportion on firm esteem in their capital structure hypothesis. The paper had attempted to test the Influence of obligation value structure on estimation of shares given diverse sizes, businesses and development opportunities with the organizations joined in Chittagong Stock trade & Dhaka stock trade. Tests for the study purpose are drawn from four most dominant parts i.e. building, nourishment & associated, fuel and force, Chemical and Pharmaceuticals. 77 Companies from 4 separate segments of Bangladesh capital business has been taken as a populace for the study while estimation of the firm was taken as needy variable and firm size, gainfulness, open possession in capital structure, profit payout, holding and operation of development rate, Liquidity & business danger was taken as Independent variables. Descriptive Statistics and Correlation analysis is used as statistical tools for relation of the variables. Cross sectional tie arrangement altered impact model was likewise used to break down the accessible information & to figure out the noteworthy effect of capital structure on the organizations esteem. Results concluded that to maximize the abundance of shareholders obliges an immaculate consolidation of value & obligation. While expense of capital has negative correspondence and it must be least as would be prudent. It has additionally been observed through the findings that by changing the composition of capital structure of the firm can have increase in its value in the market. While it could be a huge strategy for directors to rely on debt to have a capital structure that can maximize the wealth of shareholders.

Asif et al. (2011) in their research finding regarding Impact of financial leverage on dividend policy evidence from listed companies at Karachi Stock exchange, examines the relationship between dividend policy & the financial leverage of 403 companies, listed in the Karachi stock exchange during the period 2002-2008. The strategy for the profit that is trailed by the organizations is tried by utilizing broadened model of Linter (1956) .Data utilized was gathered from investigation reports, online information base of overall stock data, SBP website, Business Recorder website and annual reports of the listed companies. Islamabad Stock exchange and Security exchange commission of Pakistan was brought into play for the collection of data for the year 2002 and

2003.Dividend yield and debt ratio were used as Independent variable and dividend per share as dependent variables. First descriptive statistics for all the variables are collected and after that association lattice was computed to distinguish a preparatory relationship among all the variables emulated by relapse examination on board information to look at the extent and criticalness through settled and irregular impact model. It were demonstrated through hypothetical attestations and were defended through Random impact display that broadly practiced dividend approach and level of corporate obligation influence the profit arrangement of Pakistani firms. While on the other side it has been observed that financial leverage was found to have negative effect on profit payout, demonstrating that less profit installments are made by the organizations that are under high leverage.

Bhatti et al. (2010) had examined the affect of leverage on risk and stock returns evidence from Pakistani companies. The paper had attempted to make an Investigation on the influence of power on efficient hazard and stock return in the corporate sector of Pakistan. Data was gathered from eight commercial enterprises that are cotton, designing, Fuel and vitality, Chemicals, Transport and correspondence, sugar and partnered concrete, paper &board. Data was collected from the period Jan 2005-Dec 2009.Primary data was collected due to limited time and resources are collected from eight industries, researcher has not covered all the industries due to limitations. Researchers analyzed the data by utilizing the recipes of return, Standard deviation, Leverage and connected these entire recipe in Ms Excel. Results provided that despite of many reforms brought by the Government, Corporate part still conveys an abnormal state of influence making abnormal state of methodical danger prompting high instability in stock costs of these commercial ventures exchanged on KSE

S.A. Jude Leon (2013) in his work on the Impact of capital structure on financial performance of listed manufacturing firms in Srilanka explained that Capital structure is the most significant discipline of Company's operation Capital decision has the greatest importance regarding the firm's sustainability. The capability of an organization in satisfying the needs of stakeholders is in close relation to capital structure. Study period chosen for this study is from the years 2008-2012.Data was collected using secondary sources such as Colombo stock exchange handbook, CD record of Colombo stock exchange, Colombo stock exchange monthly report and CSE annual report. Study has focused on the manufacturing sector, as the population had been taken from 30 firms and there had been 150 firm-Years (30*5) for the panel data analysis purpose. SPSS software version 13.0 has been used for the processing of data, further correlation, regression and descriptive statistics were also utilized for data analysis. Independent and dependent variables are measured using leverage, ROE and ROA. Results showed that by correlation analysis leverage is negatively correlated with both ROA and ROE. There is negatively relation prevalent between leverage and ROE which is significant at 0.001 levels. Here leverage has a significant relationship with ROE. On the other side there is no significance between ROA and Leverage at significance level 0.097.Hence there is negative relationship prevalent between Leverage and ROE and no significant relationship between leverage and ROA.

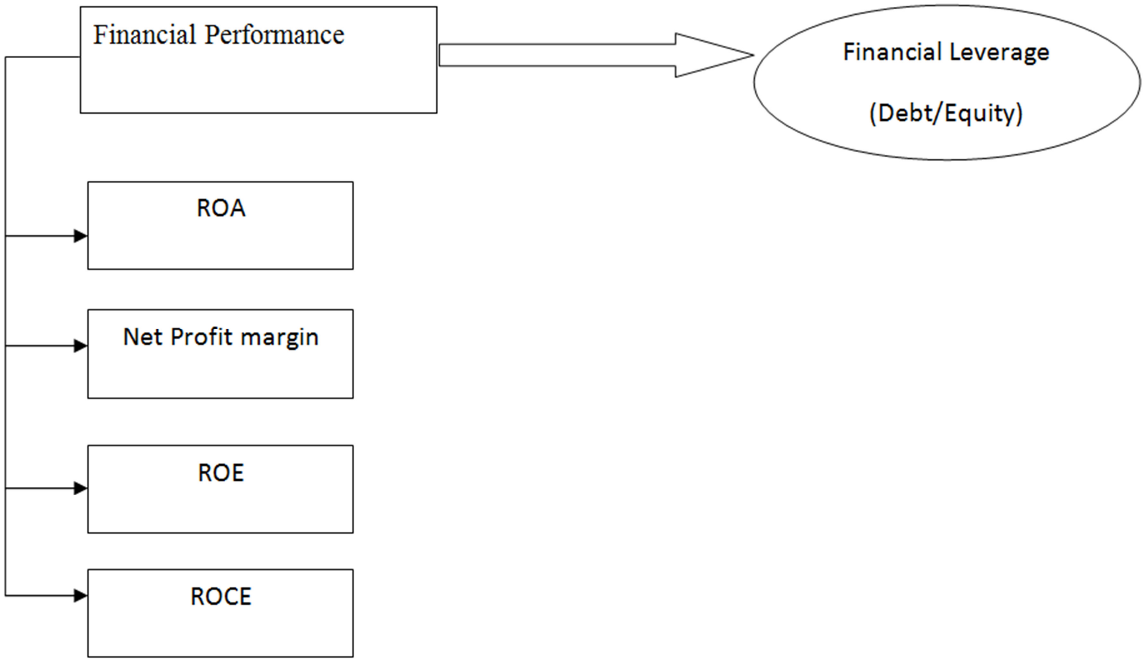
Moradi et al. (2010) in their research work on the study of effect of financial leverage on earnings response coefficient throughout income approach: Iranian evidence aimed to find out relationship between budgetary influence and profit reaction coefficient through a wage approach. Companies raise their value by distinctive systems to touch base on the choice that give better techniques are a test that most money related directors of the partnership face. In organizations with remarkable obligation the response of stock costs to sudden income will be influenced by company's liquidation hazard. This incorporates organizations recorded on Tehran Stock Exchange and the data of seven year period from 2002-2008 was used. Degree of financial leverage and unexpected earnings were taken as Independent and abnormal stock return as dependent variable. Analysis of data was performed by using multiple regressions. Outcomes of the study portrays that the profit reaction coefficient for the low power firms gathering is bigger than high influence ones, with contrasts in the methods among gatherings factually noteworthy.

Dr.Khalaf Taani (2012) had investigated the Impact of working Capital management policy and financial leverage on financial performance. His study had decided the Impact of working capital administration approach and budgetary power on monetary execution of Jordanian organizations measured regarding ROE, ROA and Net Income. Sample size consisted of 45 Jordanian companies and time period of 5 years from 2005-2009.By taking N.I, ROE and ROA for measure of profitability and are used as dependent variables whereas working capital management policy and debt ratio which are proxy variable of financial leverage are used as Independent variables. To test the hypothesis and to analyze the data of present research SPSS software was used. Whereas Test of correlation using scatter graph, Pearson rank correlation, ANOVA & multiple regression analysis were performed. Study results demonstrate that Test of obligation proportion has moderate negative direct relationship to net Income and ROA yet a frail positive association with ROE. Working capital administration approach test outcomes characterized a moderate positive straight relationship to net salary. Further there was frail positive straight relationship between living up to expectations capital administration arrangement and ROA; however it shows up there was no direct relationship between living up to expectations capital administration approach and ROE.

3. DATA AND METHODOLOGY

3.1 Theoretical model and conceptual framework:

Below mentioned figure will help to understand the conceptual model and theoretical framework for this research paper



3.2 Hypothesis

H0: There is no relationship between financial leverage and financial performance
H1: There is positive relationship between financial leverage and financial Performance

3.3 Variables

i. Independent Variable

Independent variable used in this study is financial Performance of listed chemical companies which is measured by Using ratios Return on Assets, Net profit margin, Return on equity and Return on Capital employed.

ii. Dependent variable

In this study we use financial leverage as dependent variable which is measured by using Debt to equity ratio

3.4 Data Collection

Secondary data is used in this research. Data is collected from financial statement analysis of companies (Non financial) listed at Karachi stock exchange from the period (2006-2013), this data is published by State Bank of Pakistan and DWH department. Data is also collected from Annual Reports of the Chemical companies published on Companies websites.

3.5 Sample Size

Sample Size consisted of 20 listed companies from Chemical Sector of Karachi Stock Exchange.

3.6Statistical Techniques

Descriptive statistics is used to describe and summarize the behavior of the variables in this study. Correlation and Regression analysis has been brought into play to find out the Relationship between financial performance and financial leverage. Data collected is analyzed using E-view’s and SPSS Software

4. RESULTS AND DISCUSSION

4.1 Correlation analysis

To find out the relationship between financial leverage and financial Performance correlation analysis has been brought into play

Correlations

		ROA	ROE	ROCE	NP	DE
ROA	Pearson Correlation	1	-.004	.035	.545**	.002
	Sig. (2-tailed)		.964	.681	.000	.983
	N	149	148	137	141	139
ROE	Pearson Correlation		1	.069	-.017	-.003
	Sig. (2-tailed)			.421	.838	.971
	N		149	138	142	140
ROCE	Pearson Correlation			1	-.011	.074
	Sig. (2-tailed)				.902	.405
	N			146	137	129
NP	Pearson Correlation				1	.009
	Sig. (2-tailed)					.918
	N				143	134
DE	Pearson Correlation					1
	Sig. (2-tailed)					
	N					141

**. Correlation is significant at the 0.01 level (2-tailed).

Connection results demonstrate that there is certain relationship between Return on Asset and Debt to value proportion of .002 and the result is significant at 1% significance level. Return on equity has negative relationship with debt to equity and the result is significant at 1% significance level, which depicts that as leverage increases Shareholders will be hesitant to invest in company with high debt proportion, as a result return on equity will also decreases and will also have negative implications for EPS also as finance cost increases with high leverage.

Net profit margin shows a positive relationship with debt to equity of .009 at 1% significance level, which means that as Leverage Increases Company will have more capital available for investment and new business Ventures and will also results in increase in profitability margins for the company.

On the other hand Return on capital employed has also resulted in positive relationship with debt to equity ratio of .074 at 1% Significance level.

4.2 Regression Analysis:

Regression analysis is carried out to discover the estimation of one variable on the basis of another one.

Dependent Variable: DE_?
Method: Pooled Least Squares
Date: 09/30/14 Time: 03:03
Sample: 2006 2013
Included observations: 8
Number of cross-sections used: 20
Total panel (unbalanced) observations: 135

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	317.1321	317.2344	0.999678	0.3193
NP_?	7.964631	89.82966	0.088664	0.9295
R-squared	0.000059	Mean dependent var		316.8227
Adjusted R-squared	-0.007459	S.D. dependent var		3672.037
S.E. of regression	3685.707	Sum squared resid		1.81E+09
F-statistic	0.007861	Durbin-Watson stat		1.203767
Prob(F-statistic)	0.929483			

Regression analysis between Net profit margin and debt to equity showed a Positive coefficient of

7.964631.Adjusted R-Square is negative having value -0.007459 depicting weak strength of the model. On the other hand F-Statistics is at significant level based on Prob F-Statistics.

Dependent Variable: DE_?
Method: Pooled Least Squares
Date: 09/30/14 Time: 02:59
Sample: 2006 2013
Included observations: 8
Number of cross-sections used: 20
Total panel (unbalanced) observations: 140

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	304.7234	308.0028	0.989353	0.3242
ROA_?	2.553175	114.2850	0.022340	0.9822
R-squared	0.000004	Mean dependent var		305.5349
Adjusted R-squared	-0.007243	S.D. dependent var		3605.869
S.E. of regression	3618.904	Sum squared resid		1.81E+09
F-statistic	0.000499	Durbin-Watson stat		1.195017
Prob(F-statistic)	0.982209			

Regression analysis between Return on Asset and Debt to equity showed a positive coefficient of 2.553175.Adjusted R-Square is negative having value -0.007243 depicting weak strength of the model. While F-Statistics is at significant level based on Prob F-Statistic

Dependent Variable: DE_?
Method: Pooled Least Squares
Date: 09/30/14 Time: 03:02
Sample: 2006 2013
Included observations: 8
Number of cross-sections used: 20
Total panel (unbalanced) observations: 137

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	211.4103	326.2781	0.647945	0.5181
ROCE_?	9.567055	9.261522	1.032989	0.3035
R-squared	0.007842	Mean dependent var		312.1978
Adjusted R-squared	0.000493	S.D. dependent var		3645.137
S.E. of regression	3644.238	Sum squared resid		1.79E+09
F-statistic	1.067067	Durbin-Watson stat		1.224118
Prob(F-statistic)	0.303456			

Regression analysis between Return on capital employed and debt to equity showed a positive coefficient of 9.567055.Adjusted R-Square is Positive having value 0.000493 depicting Strong strength of the model. While the F-Statistics is at In-significant level based on Prob F-Statistics.

4.3 Descriptive Statistics
Dependent Variable: DE_?
Method: Pooled Least Squares
Date: 09/30/14 Time: 07:09
Sample: 2006 2013
Included observations: 8
Number of cross-sections used: 20
Total panel (unbalanced) observations: 135

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	317.1321	317.2344	0.999678	0.3193
NP_?	7.964631	89.82966	0.088664	0.9295
R-squared	0.000059	Mean dependent var		316.8227
Adjusted R-squared	-0.007459	S.D. dependent var		3672.037
S.E. of regression	3685.707	Sum squared resid		1.81E+09
F-statistic	0.007861	Durbin-Watson stat		1.203767
Prob(F-statistic)	0.929483			

Regression analysis between Net profit margin and debt to equity showed a Positive coefficient of 7.964631.Adjusted R-Square is negative having value -0.007459 depicting weak strength of the model. On the other hand F-Statistics is at significant level based on Prob F-Statistics.

Dependent Variable: DE_?
Method: Pooled Least Squares
Date: 09/30/14 Time: 02:57
Sample: 2006 2013
Included observations: 8
Number of cross-sections used: 20
Total panel (unbalanced) observations: 140

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	307.5536	310.7043	0.989859	0.3240
ROE_?	-3.307865	89.62521	-0.036908	0.9706
R-squared	0.000010	Mean dependent var		305.5349
Adjusted R-squared	-0.007236	S.D. dependent var		3605.869
S.E. of regression	3618.892	Sum squared resid		1.81E+09
F-statistic	0.001362	Durbin-Watson stat		1.195048
Prob(F-statistic)	0.970612			

Regression analysis between Return on equity and debt to equity showed a negative coefficient of -3.307865.Adjusted R-Square is negative having value -0.007236 depicting weak strength of the model. While the F-Statistics is at significant level based on Prob F-Statistic

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The results show positive relationship of ROA, NP margin and ROCE with debt to equity ratio, whereas negative relationship of ROE with debt to equity ratio. Regression results showed a negative adjusted R-Square in ROA, NP and ROE whereas it is positive in ROCE .mean probability was slight higher in Net profit case, Whereas Standard deviation of ROE and ROA were lowest. Standard deviation was highest in Descriptive statistic case. Hence null hypothesis is rejected and the alternate hypothesis that there is positive relationship between financial leverage and financial performance is accepted. As a result chemical sector companies can enhance their performance and profitability margins by having a significant leverage proportion in their capital structures.

5.2 Recommendation

This research has been conducted on listed chemical sector companies of Pakistan. Future researchers can carry out research on other sectors listed companies to find out the relationship between financial leverage and financial performance.

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