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Impact of Debt Financing on Corporate Financial Performance Comparative Study between Manufacturing and Service Firms Listed At Karachi Stock Exchange Pakistan

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ABSTRACT
Basic objective of this study was to examine the relationship between debt financing and firm financial performance of different manufacturing and service companies listed at Karachi Stock Exchange. For the achievement of this objective a sample of twenty companies during the years 2005 to 2014 was studied. In this study financial leverage, firm size, and sales growth were taken as independent while Tobin's Q as dependent variable. The sample size for twenty firms for ten years consists of 200 observations. Descriptive statistics, correlation, and regression analysis models used to analyze the date that were put in. The statistical tool that was used for analysis is SPSS 16.0 Version. A linear regression model is applied on the data to establish a causal relationship between the variables. The study provided highly significant as well as insignificant relations in particular. This research was actually meant to compare both manufacturing and service firms by selecting only 20 out of total population of firms in KSE. For manufacturing firms all the relations were positively significant except sales growth showed negatively significant relationship with profitability (Tobin's Q). But as far as service oriented companies are concerned only two variables financial leverage and firm size showed negatively significant results while sales growth showed positively insignificant result. There were temporal limitations of the study, time period for this study was four months and this was not enough time to cover and collect data from KSE.

Keywords: *Financial leverage, firm size, sales growth, Tobin's Q.*

1. Introduction

Previous research carried out for examining the impact of debt financing with its determinants on firm financial profitability. Various independent variables like financial leverage, short debt to asset, long debt to asset, and total debt to total assets ratios were considered while having also the moderate and control variables with effect. And dependent variables of profitability as ROA, ROE, profit margin etc were analyzed. This research is specifically meant to consider Tobin's Q as dependent variable for checking the effect of total debt to total equity, firm size, and sales growth on it.

This study will help to know and evaluate the effects of financial leverage, firm size, and sales growth upon firm's profitability of some Pakistani companies. Our basic aim is to investigate the effect of debt financing upon firm's financial performance (Tobin's Q).

Our statement of problem is to determine the

"Impact of debt financing upon firm's financial performance''

1.1Relationship between Financial Leverage and Firm's Profitability

Titman &Wassels (1988), concluded in his study that firms which use their earnings instead of taking outside capital earn more profit because of less leverage as compare to the firms which rely more on outside capital which increase their leverage. Firm performance can be depicted by the price of its stock. If stock price of the firm is high than firms prefer to issue equity instead of taking outside capital that helps them to maintain their leverage.

Wald (1999) in his research study argued that debt to assets ratio has significant negative relation with the firm profitability. He did his study upon the firm's capital structure which operates in United State, United Kingdom, Japan, France, and Germany. He used firm size, growth and firm's riskiness as explanatory variables. So in this current study the researcher use financial leverage, firm size and sales growth as independent variables and considers firms operating in Pakistan listed in Karachi Stock Exchange.

Sheel (1994), in his study found the negative relation of debt to assets ratio with firms past profitability. The usage of cross sectional analyses to study leverage behavior of 32 companies, he chooses industry groups of manufacturing and hotel companies. Findings confirmed that all determinants of leverage with exception of size of firm are resulted significantly in giving the explanation regarding variations of leverage in debt behavior. So in present study the researcher choose manufacturing and most of the banks while few insurance and an investment companies

Eunju&Soocheong (2005), studied the relationship between financial leverage, profitability and firm size of some companies in sector of restaurant. He took study period from 1998 to 2003 by using ordinary least square method. The aim of this research was to analyze the relation of financial leverage with restaurants firm risk and profitability. The first hypothesis was Restaurant Company using a level of leverage which was lower with a higher profitability. Second hypothesis was; firms with a lower level of financial leverage are less risky as compare to those firms which had a higher of financial leverage. In his study he applied the return on equity for measuring the profitability of company, financial leverage which is the ratio of long term debt to total assets and total assets as size of firm. Results of this study suggested that those restaurant companies which have large assets, are more profitable than those which are small firms. So in this research investigator apply Tobin's Q as determinant of profitability for the period from 2005 to 2014 with hypotheses significant for all relations.

Mangalam&Govindasamy (2010) analyzed and understand the impact of leverage on the profitability of the firm by investigating the relationship between the leverage and the earning per share. He analyzed leverage in three ways which were financial leverage, operating leverage and combine leverage. For analysis purpose he took seven public limited companies listed on the Bombay stock exchange. These were ACC Cement, Chettinad Cement, India Cements, Dalmia Cement, Ambuja Cement, Birla Cement and Prism Cement. He took the period of seven years for analysis. He used Analysis of Variance (ANOVA) as analysis tool in his study. He evaluates the hypothesis of relationship between degree of financial leverage and earnings per share. So in this investigation, the research worker will analyze leverage by only way i.e. financial leverage.

Baker (1973) analyzed that effect of financial leverage or relatively greater use of debt capital, on industry profitability. This study developed and tested a model consisting of two mathematical equations, one explaining industry profitability in terms of the usual market structure variables plus leverage and the other one was a new equation incorporating risk variables to explain leverage. He measured inversely as the ratio of equity to total assets for the leading firms in an industry over ten years. First he used two stages least square method of estimation which shows leverage is significant and has the theoretically correct negative sign

which means low amounts of leverage tend to raise industry profit raises. Secondly he used ordinary least square estimation which also indorsed the same results.

1.2Relationship between Size of Firm and Profitability

The size of a firm has an essential role in finding the relation the firm enjoys within and outside its operating environment or domain. Great influence of stakeholders depends upon the large size of firm.

Bhayani, (2010) argued that the growth of economy has a very important relation to be found with the increased firm size, an interesting aspect of economic growth. In the study of Rajan&Zingales (1995) sample of 43 countries showed 66% growth in the industries over the 1980s due to the growth in the size of current establishment while the remaining i.e., one-third occurred by creating new ones. Since the firm size popularity continues to grow in external business environments, more attentions are going to be pushed to its true effects upon the internal structures of corporations and the specific impact upon the relationship between the companies and their important stakeholders.

One of the most popular areas where the influence of firm size has been much queried is the area of practice of corporate finance. It would not be wrong to say that firms have been playing a central role in today's global and capitalist world economy and their performance is one of the most important issues for many firm stakeholders such as governments, suppliers, employees, shareholders, and creditors. (Bhayani, 2010; Guijarro*et al.,* 2007). By this reason, evaluating the determining factors of profitability has been considered a key research theme.

It is also argued that larger firms are more stable and mature and they can generate greater sales because of the greater production capacity that will enhanced capital cost savings with the economies of scale (Ravenscraft& Scherer, 1987). On the contrary, some authors claim that size may have no or negative impacts on profitability (Shepherd, 1972), especially if growth in size causes a diseconomies of scale (Goddard *et al.,* 2005)

Serrasqueiro and Nunes (2008) worked on the relationship of performance of small and medium sized companies of Portugal with firm size from the period of 1999 to 2003. Results indicated a significantly positive relationship of firm size with SMEs profitability. But the results indicated insignificant relation for the large Portuguese firms (Serrasqueiro*et al,* 2008). Lee (2009) analyzed the effects of firm size upon profitability over 7,000 U.S firms which were publicly-held in the period from 1987 to 2006.He observed the positive relation. After reviewing the articles regarding the impact of firm size upon profitability, one can easily say that there can be different result-giving relations explaining even the no relationship between firm size and profitability.

1.3 Relationship between Sales Growth and Profitability

To evaluate the growth of small and medium-sized British companies in their study, Robson and Bennett (2000) observed positive relation of both sales growth and profitability with number of employees. They evaluated the growth of SMEs of British companies. Only significant result was shown in the case of sales growth. So in the present researcher will observe relation of both sales growth and profitability with Total Assets by taking its natural log. After having the result of the survey conducted on 672 registered members of the Institute of the entrepreneur of the year, empirical study showed positive relation of sales growth with profit growth rate Cox et al. (2002). Liu and Hsu (2006) also observed significantly positive effect upon growth of firm. Cowling (2004) showed that profit and growth have a tendency to act together for British firms.

Hobarth (2006) showed that companies having efficient working capital management, more equity and fewer liabilities, low book to market ratio, low liquidity, and high retained earnings

have high profitability. Bottazzi*et al.*, (2008) studied on the sample of manufacturing firms of Italy, and the results showed the positive correlation between profitability and sales growth of firms but hardly or barely significant.

Niskanen&Niskanen (2007) supposed that there would be a positive effect of increase in profit on firm growth in the case of companies having less than ten employees. Based upon his findings Coad (2010) stated a negative relation of growth with profitability.

Markman& Gartner (2002) evaluated the relationship of profit growth with employment growth and sale both acting as an indicator for firm growth examines their relationship with the profit growth. Similarly, Sexton, et al. (2000) showed a very weak relationship of sales growth with profits.

No remarkable relation exists between differential profitability and growth trend (Bottazi*et al.,* 2008). High profitability is not constant above the average growth rates for companies in Ireland (Roper 1999). Gschwandtner (2005) argued that there is no significant relationship statistically existed between firm growth and profitability for American firms.

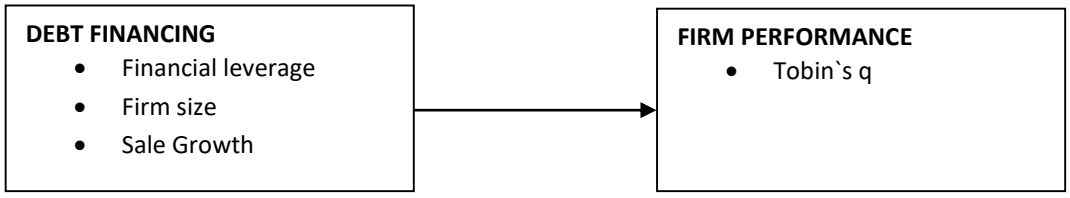
1.4 Tobin's Q

According to Dybvig, Philip, &Warachka (2011), importance of Tobin's Q exists in the fact that it normally used as market-based performance intending to indicate the performance of firm. It is one of the profitability measures besides return on equity, return on assets etc., which has been used to evaluate the effects of different variables upon organization. In studying the impact of debt financing (financial leverage-basic independent variable) upon the profitability (Tobin's Q-basic dependent variable), this study will be analyzing the relationship in between them. It is assumed in this research that financial leverage, firm size and sales growth have a significant relation upon firm's profitability.

2. Research Methodology

2.1 Theoretical Framework:

Independent Variable **Dependent Variable**



Data collection

Collection of data methods and how that data should be analyzed, examined, and interpreted is referred as research methodology (Marshal, 1998). In the research problem main concentration is upon the significance of relationship between debt financing (financial leverage) and firm financial profitability (Tobin's Q), but the relations like financial leverage and ROA, financial leverage and ROE, firm size and Tobin's Q, sale growth and Tobin's Q, will also be determined to give further or additional details in study.

Probability sampling is used in this study; a probabilitysampling method is a method of sampling that uses some form of random selection. Type of research is explanatory, an effort to join ideas to understand cause and effect, meaning researcher wants to explain what is going on. Explanatory research considers how things come and act together.

2.2 Population

The major intention of this research is to evaluate the relation of debt financing with firm's financial performance for which the data from two different sectors of Karachi stock exchange

is taken. Therefore, the population in this research is all the companies included in these two sectors.

2.3 Sample and Data

The importance of sampling denotes taking a sample or samples for analysis. Taking results quickly from available data could be worthy for researchers. So, the sample in this research is 20 companies while the sample size for 10 years' data is 200 (10 × 20) .The researchers selected 20 companies from companies listed at Karachi Stock Exchange so as to determine and analyze the impact as quickly as possible. Also to check their significance level, because as the sample size increases there are firms that have more debt which will have ultimately negative effect. Data collection instrument is the annual reports especially financial reports of the companies going to be analyzed. The variables were computed in Statistical Package for Social Sciences (SPSS) 16.

2.4 Measurement of instrument/variables

2.4.1 Financial Leverage

Financial debt level (LVRG) is calculated as the ratio of debt to shareholder's equity (Fred & Brigham, 1969). It is calculated mathematically as follows;

LVRG = Total debts**/**Shareholder's equity

2.4.2 Size of firm

Company size (Co SIZE) is computed as the natural logarithm of total assets (Deloof, 2003). It is measured as:

Company size (Co SIZE) = Log of total assets.

2.4.3 Firm sale growth

The growth of firm (SGROW) is mathematically measured as the difference in current year's annual sales value from preceding year's sales. It is calculated as the ratio of difference of sales over base sales (Deloof, 2003; Nazir&Afza, 2003; Raheman, 2010).

SGROW = ([current year's sales – former year's sales]/former year's sales)

2.4.4 Tobin's Q

It is calculated as the ratio of the market capitalization plus the total debt divided by the total assets of the firm. (Dybvig&Warachka, 2011).

$$Tobin; sQ = \frac{MarketCapitalization + Debt}{TotalAssets}$$

$$Tobin'sQ = \frac{TotalMarketValueofFirm}{TotalAssetValueofFirm}$$

2.5 Data analysis Research model

Descriptive statistics provide a short description of quantitative research data (Kaplan &Saccuzzo, 2001). Descriptive statistics describe data in a comprehensible and organized way. It gives a general view of the research data (Durrheim, 2002).To present the sketch of the sample data for research purpose, descriptive statistics are used. By means of maximum and minimum values with range, means and standard deviations, descriptive statistics are calculated. Mean stands for the average of each variable where as standard deviation represents the extent of variation from the mean value (Durrheim, 2002).

2.6 Panel Data Analysis Regression Analysis

In social sciences research, Regression Analysis is the most general analysis technique. It measures the relationship of a number of independent variables with dependent variables. To examine the ultimate impact of one variable upon the other variable, regression analysis calculates statistical significance of the association between the variable that the estimated

relation is close to true relationship upon some confidence interval. The coefficient of a linear regression equation is involved in estimating the value of dependent variable by one or several independent variables estimated by linear regression analysis. Panel Regression analysis is typically conducted in Time-Series Cross-Sectional studies. These studies have data for many different units over a period of time (Park, 2008).

2.7 Regression Model

The general model for regression analysis will be:

(Tobin's Q) = *f (LEVRG, Co SIZE, SG)*

Q: Tobin's Q

LEVRG: Leverage ratio

Co SIZE: Company size

SG: sale growth

(Q) = β0+ β1 (fin. Leverage +β2 (Co size) +β3 (SG) +εit

*β0***:** *The intercept of equation*

β1: *Coefficient of financial leverage*

β2: Coefficient of company size

β3: Coefficient of sales growth

t: *Time = 1, 2, 3, …, 10 years.*

εit: The error term

3. Results and discussion (table and figures)

	N	Minimum	Maximum	Mean	Std. Deviation
YEARS	100	2005	2014	2009.50	2.887
Tobin's q	100	-4.02	3.20	-.0508	1.61334
Financial leverage	100	-.46	6.03	3.8443	2.03967
Firm size	100	1.94	3.11	2.3327	.24224
Sales growth	85	-1.55	5.96	2.9699	.90317
Valid N (list wise)	85				

From the table it is clear that the minimum value of Q is -4.02 and maximum value is 3.20. The mean value of Q is -.0508 with standard deviation of 1.6133 which shows that Q can deviate from mean by 16%. The minimum value of financial leverage is -0.46% which means minimum effect held by financial leverage is -46% while the maximum value is 6.03, mean value is 3.844 and standard deviation is 2.039.

To check the firm size and its relation with profit of the firm, natural logarithm of total assets is taken as proxy for firm size which is used as independent variable in this study. The average value of firm size measured by log of total assets is 2.33 with standard deviation of 0.242. Sale growth is control variable with mean value of 2.969 and standard deviation of 0.903. The minimum value sale growth is -1.55 and maximum value of 5.96. To study the relationship of sales growth and profitability the minimum value of sales growth is -1.55 and the maximum value of sales growth is 5.96. The mean value is -1.55 with a standard deviation of 0.90 which that the sales growth is 0.90 deviated from the mean value.

3.1 Correlation

Table *Correlation of Manufacturing Firms*

		Tq	Fl	Fs	Sg
Tq	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	100			
Fl	Pearson Correlation	.474**	1		
	Sig. (2-tailed)	.000			
	N	100	100		
Fs	Pearson Correlation	.350**	-.327**	1	
	Sig. (2-tailed)	.000	.001		
	N	100	100	100	
Sg	Pearson Correlation	-.217*	.197	-.219*	1
	Sig. (2-tailed)	.046	.070	.044	
	N	85	85	85	85
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

From the above correlation table it is clear that the financial leverage and firm's profitability (Tobin's Q) have negative correlation with a p value of 0.474 because when a firm increases the debt against the total asset the firm's profitability will effect. The firm size has positive correlation with firm's profitability while sales growth has negative correlation with profitability. The firm sales growth have a negative correlation with a p value of -0.217 it mean that when there is an increase (decrease) in firm sales the profitability will also increase (decrease).

3.2 Regression Analysis

Table *Regression Model Summary of Manufacturing Firms*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.736	.542	.525	1.04740	.542	31.926	3	81	.000	.954
a. Predictors: (Constant), Sales Growth, Firm Size, Financial Leverage										
b. Dependent Variable: TOBIN'S Q										

Analysis of a regression is a statistical technique to determine the effect of one variable on another variable. In this study regression analysis shows the effect of debt financing on firm profitability (Tobin's Q) of the productive firms listed in Karachi stock exchange. In the above table the R is 73.6 and the adjusted R Square is 54.2 which shows the variation in the independent variable i.e. profitability (Tobin's Q) explains by the three independent variable jointly i.e. financial leverage, sales growth and firm size. The F is 31.926 percent variation in profitability can be explained by residuals or other variables other than financial leverage, sales growth and firm size.

3.3 ANOVA

Table *ANNOVA Model Summary of Manufacturing Firms*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	105.075	3	35.025	31.926	.000[a]
	Residual	88.861	81	1.097		
	Total	193.936	84			
a. Predictors: (Constant), Sg, Fl, Fs						
b. Dependent Variable: Tq						

3.4 Coefficients

Table *Coefficient Model Summary of Manufacturing Firms*

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8.803	1.367		-6.439	.000
	Financial leverage	.504	.060	.693	8.410	.000
	Firm size	3.399	.494	.570	6.884	.000
	Sales growth	-.385	.131	-.229	-2.942	.004
a. Dependent Variable: Tq						

Profitability has t-value -6.439 with P- value (0.000) which is significant at 5% level of significance. The above table shows that financial leverage is positive with a t-value i.e. 8.410 related to the profitability with a p-value 0.000 which shows that the results are significant so the financial leverage effect the firms profitability. The firm size has a significant value i.e. 0.000 with a t-value of 6.884. The other independent variable sales growth has a negative t-value -2.942 and has a significance results with a p-value of 0.004.

3. 5 For Service Firms

3.5.1 Descriptive Analysis

Table *Descriptive Statistics of Service Firms*

	N	Minimum	Maximum	Mean	Std. Deviation
Tobin's Q	100	-4.61	.75	-2.0130	1.03127
Financial leverage	98	.85	9.41	5.0829	2.51659
Firm size	100	2.11	2.47	2.3260	.10528
Sales growth	82	-.53	5.53	3.5126	1.08996
YEARS	100	2005	2014	2009.50	2.887
Valid N (list wise)	82				

From the table it is clear that the minimum value of Q is -4.61 and maximum value is .75. The mean value of Q is -2.103 with standard deviation of 1.0312 which shows that Q can deviate from mean by 10.31%. The minimum value of financial leverage is -.85 which means minimum effect held by financial leverage is -.85 while the maximum value is 9.41, mean value is 5.0829 and standard deviation is 2.516.

To check the firm size and its relation with profit of the firm, natural logarithm of total assets is taken as proxy for firm size which is used as independent variable in this study. The average value of firm size measured by log of total assets is 2.326 with standard deviation of .105. Sale growth is control variable with mean value of 3.512 and standard deviation is 1.089. The

minimum value sale growth is -.53 and maximum value of 5.53. The mean value is 3.512 with a standard deviation of which that the sales growth is deviated from the mean value 3.5%.

3.5.2 Correlation

Table *Correlation of Service Firms*

		Tobin's q	Financial leverage	Firm size	Sales growth
Tobin's q	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	100			
Financial lvg.	Pearson Correlation	-.626**	1		
	Sig. (2-tailed)	.000			
	N	98	98		
Firm size	Pearson Correlation	-.604**	.605**	1	
	Sig. (2-tailed)	.000	.000		
	N	100	98	100	
Sales grw.	Pearson Correlation	.163	-.049	-.076	1
	Sig. (2-tailed)	.144	.665	.499	
	N	82	82	82	82
**. Correlation is significant at the 0.01 level (2-tailed).					

From the above correlation table, it is clear that the financial leverage and firm's profitability (Tobin's Q) have negative correlation with a p value of -.626 because when a firm increases the debt against the total asset the firm's profitability will effect. Also the firm size and profitability have a negative correlation with a p value of --.604. The firm sales growth has a positive correlation with a p value of .163 it means that when there is an increase (decrease) in firm sales the profitability will also increase (decrease).

3.5.3 Regression Analysis

Table Regression *Model Summary of Service Firms*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df 1	df 2	Sig. F Change	
1	0.710	0.505	0.486	.73437	0.505	26.490	3	78	.000	1.441
a. Predictors: (Constant), Sales Growth, Firm Size, Financial Leverage										
b. Dependent Variable: TOBIN'S Q										

Regression analysis is a statistical technique used to determine the effect of one variable on another variable. In this study regression analysis shows the effect of debt financing on firm profitability (Tobin's Q) of the service firms listed in Karachi stock exchange. In the above table

the R is 50.5% and the adjusted R Square is 48.65% which shows the variation in the in dependent variable i.e. profitability (Tobin's Q) explains by the three independent variable jointly i.e. financial leverage, sales growth and firm size. The F is 26.490% percent variation in profitability can be explained by residuals or other variables other than financial leverage, sales growth and firm size.

3.5.4 ANOVA

Table *Anova Model Summary*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.857	3	14.286	26.490	.000[a]
	Residual	42.065	78	.539		
	Total	84.922	81			
a. Predictors: (Constant), Sg, Fl, Fs						
b. Dependent Variable: Tq						

3.5.5 Coefficient

Table *Coefficient Model Summary*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.630	2.267		2.924	.005
	Fl	-.165	.040	-.417	-4.127	.000
	Fs	-3.512	1.008	-.353	-3.483	.001
	Sg	.109	.075	.116	1.447	.152
a. Dependent Variable: Tq						

Profitability has t-value 2.924 with P- value (0.005) which is significant at 5% level of significance. The above table that financial leverage is negative with a t-value i.e. -4.127 related to the profitability with a p-value 0.000 which that the result are significant so the financial leverage effect the firms profitability. The firm size has a significant value i.e. 0.001 with a t-value of -3.483. The other independent variable sales growth has a positive t-value 1.447 and has insignificant results with a p-value of 0.152.

4. Conclusion

The idea of this study was to observe the nature of relationship between Debt financing and Firms' financial performance for selective companies of Pakistan. For the measurement of debt financing the independent variables used were financial leverage, firm size and sales growth. Profitability ratio Tobin's Q was used. Data was obtained from the annual reports of companies. Secondary data was analyzed and evaluated through regression and correlation analysis.

In case of productive firms financial leverage and firm size have a positive significant relation while sales growth has a negative significant relationship with the profitability factor which is Tobin's Q. But in service firms, financial leverage and firm size had a statistically negative relation whereas sales growth showed positive insignificance result. It was hypothesized that there is a significant relationship existed between financial leverage, firm size, and sales growth taken to be independent variables with profitability (Tobin's Q) taken as dependent variable. Only in case of service companies there showed a negatively significant result of financial leverage with Tobin's Q.

If we compare both types of firm's production and service oriented, we come to conclude that there are statistically highly significant relations existing in manufacturing companies while in the case of service firms only the sales growth showed positively insignificant result. This study enhances the understanding of debt financing on Tobin's Q in Pakistan. Pakistan has a unique investment environment to encourage both local and foreign to invest without conditions in advance. The results did not totally support hypotheses. This may be attributed to the lack of good practical implications in some companies. Therefore, government representatives in stock market authority should follow up all companies to apply code of corporate governance. Although corporate governance is practiced by Pakistani companies, further improvements are still needed to strength them.

References

Aggarwal, R., & Zhao, X. (2007). The leverage–value relationship puzzle: An industry effects resolution. *Journal of Economics and Business*, *59*(4), 286-297.

Baker, S. H. (1973). Risk, leverage and profitability: an industry analysis. *The Review of economics and Statistics*, 503-507.

Baker, S. H. (1973). Risk, leverage and profitability: an industry analysis. *The Review of economics and Statistics*, 503-507.

Bhayani, S. J. (2010). Determinant of profitability in Indian cement industry: an economic analysis. *South Asian Journal of Management*, *17*(4), 6.

Blanchard, Olivier; Rhee, C. & Summers, L. (1993). "The Stock Market, Profit, and

Booth,L.,Aivazian,V.,Demirguc-Kunt,A.,&Maksimovic,V. (2001).Capital Structures In Developing Countries. *Journal of Finance*, 56(1), 87-130.

Bottazzi, L., Da Rin, M., & Hellmann, T. (2008). Who are the active investors?: Evidence from venture capital. *Journal of Financial Economics*, *89*(3), 488-512.

Brigham, E. F. (1995). *Fundamentals of Financial Management: Barcode Manual with Frame List: to Accompany Videodisc*. Dryden Press.

Capon, N., Farley, J. U., &Hoenig, S. (1990). Determinants of financial performance: a meta-analysis. *Management Science*, *36*(10), 1143-1159.

Cheng, M. T. (2009). Relative effects of debt and equity on corporate operating performance: A quantile regression study. *International Journal of Management*, *26*(1), 142.

Cheng,Y. ,Liu Y. and Chien.C .(2010). "Capital Structure and Firm Value in China

Coad, A. (2007). Testing the principle of 'growth of the fitter': the relationship between profits and firm growth. *Structural Change and economic dynamics*, *18*(3), 370-386.

Coad, A. (2010). Exploring the processes of firm growth: evidence from a vector auto-regression. *Industrial and Corporate Change*, *19*(6), 1677-1703.

Cowling, M. (2004). The growth–profit nexus. *Small Business Economics*, *22*(1), 1-9.

Cox, H., Mowatt, S., &Prevezer, M. (2002). The firm in the information age: organizational responses to technological change in the processed foods sector. *Industrial and Corporate Change*, *11*(1), 135-158.

Deloof, M. (2003). Does working capital management affect profitability of Belgian firms?.*Journal of business finance & Accounting*, *30*(3-4), 573-588.

Durrheim, K. (2002). Quantitative Analysis. In Terre Blanche, M. &Durrheim, k.(Eds), Research in Practice, pp. 96-122, Cape Town: University of Cape TownPress.

Dwilaksono, H. (2016). Effect of Short and Long Term Debt to Profitability in the Mining Industry Listed in Jsx. *Business and Entrepreneurial Review (BER)*, *10*(1), 77-88.

Dybvig, P. H., &Warachka, M. (2015). Tobin's q does not measure firm performance: Theory, empirics, and alternatives. *Empirics, and Alternatives (March 5, 2015)*.

EbelEzeoha, A. (2008). Firm size and corporate financial-leverage choice in a developing economy: Evidence from Nigeria. *The Journal of Risk Finance*, *9*(4), 351-364.
Fama, E. F., & French, K. R. (1998). Taxes, financing decisions, and firm value. *The Journal of Finance*, *53*(3), 819-843.
Goddard, J., Tavakoli, M., & Wilson, J. O. (2005). Determinants of profitability in European manufacturing and services: evidence from a dynamic panel model. *Applied Financial Economics*, *15*(18), 1269-1282.
Graham, J. R. (1996). Debt and the marginal tax rate. *Journal of financial Economics*, *41*(1), 41-73.
Gschwandtner, A. (2005). Profit persistence in the 'very'long run: Evidence from survivors and exiters. *Applied Economics*, *37*(7), 793-806.
Guariglia, A. (2008). Internal financial constraints, external financial constraints, and investment choice: Evidence from a panel of UK firms. *Journal of Banking & Finance*, *32*(9), 1795-1809.
Gurcharan, S. (2010). A review of optimal capital structure determinant of selected asean countries. *International Research Journal of Finance and Economics*, *47*, 30-41.
Heinkel, R. (1982). A theory of capital structure relevance under imperfect information. *The journal of finance*, *37*(5), 1141-1150.
Höbarth, L. L. (2006). *Modeling the relationship between financial indicators and company performance. An empirical study for US-listed companies* (Doctoral dissertation, WU Vienna University of Economics and Business).
Howorth, C., &Westhead, P. (2003). The focus of working capital management in UK small firms. *Management Accounting Research*, *14*(2), 94-111
Hurdle, G. J. (1974). Leverage, risk, market structure and profitability. *The Review of Economics and Statistics*, 478-485.
Ilyas, J. (2008). The determinants of capital structure: Analysis of non-financial firms listed in Karachi stock exchange in Pakistan. *Journal of Managerial Sciences*, *2*(2), 279-307.
Investment". Quarterly Journal of Economics 108 (1): 115–136.
Jang, S. S., & Park, K. (2011). Inter-relationship between firm growth and profitability. *International Journal of Hospitality Management*, *30*(4), 1027-1035.
Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.
Kaplan, R. M., &Saccuzzo, D. P. (2012). *Psychological testing: Principles, applications, and issues*. Cengage Learning.
Kebewar, M. (2012). The effect of debt on corporate profitability: Evidence from French service sector. *Available at SSRN 2191075*.
Lee, J. (2009). Does size matter in firm performance? Evidence from US public firms. *international Journal of the economics of Business*, *16*(2), 189-203.
Liu, W. C., & Hsu, C. M. (2006). Financial structure, corporate finance and growth of Taiwan's manufacturing firms. *Review of Pacific Basin Financial Markets and Policies*, *9*(01), 67-95.
Madrid-Guijarro, A., Auken, H. V., &García-Pérez-de-Lema, D. (2007). An analysis of factors impacting performance of Spanish manufacturing firms. *Journal of Small Business & Entrepreneurship*, *20*(4), 369-386.
Mahakud, J., &Misra, A. K. (2009). Effect of Leverage and Adjustment Costs on Corporate Performance: Evidence from Indian Companies. *Journal of Management Research*, *9*(1), 35.
Majumdar, S. K. (1997). Debt, where is thy sting? Leverage and corporate performance. *Economic and Political Weekly*, M21-M24.

Majumdar, S., & Sen, K. (2010). Corporate borrowing and profitability in India. *Managerial and Decision Economics*, *31*(1), 33-45.
Majumdar, S.K., &Chhibber, P. (1999). Capital Structure and Performance: Evidencefrom a Transition Economy on and Aspect of Corporate Governance. *PublicChoice*, 98, 287-305
Markman, G. D., & Gartner, W. B. (2002). Is Extraordinary Growth Profitable? A Study of Inc. 500 High-Growth Companies. *Entrepreneurship theory and practice*, *27*(1), 65-75.
McConnell, J. J., &Servaes, H. (1995). Equity ownership and the two faces of debt. *Journal of financial economics*, *39*(1), 131-157.
McDonald, J. T. (1999). The determinants of firm profitability in Australian manufacturing. *Economic Record*, *75*(2), 115-126.
Mesquita, J. M. C. et Lara JE (2003):«Capital structure and profitability: the Brazilian case». In *Academy of Business and Administration Sciences Conference, Vancouver, July* (pp. 11-13).
Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, *48*(3), 261-297.
Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2), 147-175.
Nakano, A., & Kim, D. (2011). Dynamics of growth and profitability: The case of Japanese manufacturing firms. *Global Economic Review*, *40*(1), 67-81.
Niskanen, M., &Niskanen, J. (2007). The determinants of firm growth in small and micro firms-Evidence on relationship lending effects. *Available at SSRN 874927*.
Opler, T. C., & Titman, S. (1994). Financial distress and corporate performance. *The Journal of Finance*, *49*(3), 1015-1040.
Panel Threshold Regression Analysis". *African Journal of Business Management,*4(12): 2500-2507
Park, H. M. (2005). Linear regression models for panel data using SAS, Stata, LIMDEP, and SPSS. *Indiana University*.
Raheman, A., Afza, T., Qayyum, A., &Bodla, M. A. (2010). Working capital management and corporate performance of manufacturing sector in Pakistan. *International Research Journal of Finance and Economics*, *47*(1), 156-169.
Rajan, R. G., &Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The journal of Finance*, *50*(5), 1421-1460.
Ravenscraft, D. J., & Scherer, F. M. (1987). Life after takeover. *The Journal of Industrial Economics*, 147-156.
Robson, P. J., & Bennett, R. J. (2000). SME growth: The relationship with business advice and external collaboration. *Small business economics*, *15*(3), 193-208.
Roper, S. (1999). Modelling small business growth and profitability. *Small Business Economics*, *13*(3), 235-252.
Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The bell journal of economics*, 23-40.
S. ChandrakumarMangalam& P. Govindasamy (2010). Leverage: an analysis and its impact on profitability with reference to selected cement companies in India.*Journal of Economics, Finance and Administrative Science, 27,* 50-75.
Serrasqueiro, Z., (2009), Growth and profitability in Portuguese companies: Adynamic panel data approach. *Economic Interferences,* 9, 565-573.
Serrasqueiro, Z.; Nunes, P.M.; Sequeira, S. T .N. (2007), Firms' growth opportunitiesAnd Profitability: a nonlinear relationship, *Applied Financial Economics Letters*,3(6), 373-379.

Serrasqueiro, Z.S. and P.M. Nunes, (2008) "Performance and size: empirical evidencefrom Portuguese SMEs", *Small Business Economics,* 31 (2), pp. 195 – 217.
Sexton, D. L., Pricer, R.W.; Nenide, B., (2000), Measuring Performance in HighGrowth Firms, Paper presented at the Babson Entrepreneurship ResearchConference, Wellesley, MA
Shah,A.,&Hijazi,T. (2004).The Determinants of Capital Structure of Stock-Exchange-Listed Non-Financial Firms in Pakistan. *The Pakistan DevelopmentReview*, 43(4), 605-618.
Shah,A.,&Khan, S. (2007).Determinants of Capital Structure: Evidence fromPakistani Panel Data. *International Review of Business Research Papers*, 3(4),265-282.
Sheel, A. (1994). Determinants of capital structure choice and empirics on leverage behavior: A comparative analysis of hotel and manufacturing firms. *Journal of Hospitality & Tourism Research*, *17*(3), 1-16.
Shepherd, W. G. (1972). The elements of market structure. *The review of economics and statistics*, 25-37.
Titman S. &Wessles, R. (1988). The determinants of capital structure choice. *Journal of Finance, 43,* 119.
Wald, J. K. (1999). How firm characteristics affect capital structure: an internationalComparison. *Journal of Finance Research, 22,* 161-188.
Weill.L. (2008). "Leverage and Corporate Performance: Does Institutional Environment Matter"? Small Business Economics, 30:.251–265.
Yoon, E., & Jang, S. (2005). The effect of financial leverage on profitability and risk of restaurant firms. *The Journal of Hospitality Financial Management*, *13*(1), 35-47.