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# Factors Determining Capital Structure of Pakistani Non-Financial Firms

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## Abstract

This study is undertaken to discover the factors determining the capital structure decision of non-financial Pakistani firms. The effect of firm's profitability, liquidity, size, tangibility and non-debt tax shield on capital structure decision of ten non-financial firms operating at Pakistan Stock Exchange is investigated for a period of ten years i-e from 2005-2014. By using fixed effects panel estimation method it is found that leverage ratio is inversely affected by profitability and current ratio of a firm. While, firm size, tangibility and non-debt tax shield positively effects leverage ratio. The influence of profitability is weakly significant whereas that of liquidity, size, tangibility and non-debt tax shield are strongly significant. The study also shows that results for profitability and liquidity are in accordance with the Pecking Order Theory and the result for size; tangibility and non-debt tax shield are in line with the Trade-Off Theory.

**Keywords:** Capital Structure, Profitability, Tangibility, Size, Liquidity, Non Debt Tax Shield and Panel Data.

**JEL Classifications:** G310, G320 and G330.

## Introduction

The irrelevance theory introduced by Modigliani & Miller (1958) has grown exponentially to enrich the academic knowledge on the subject. Numerous theoretical and applied studies are added to the literature showing that capital structure choice is one of the vital corporate financing decisions of a firm. Profit or loss of a firm is partly based on its financial decision making criterion. It includes the raising of assets from various sources. Especially, how a firm can best finance its assets between debt, equity and most commonly a combination of both. If a firm exclusively go for debt financing, which is comparatively an inexpensive source of financing it adds to a firm's relative riskiness, reduces its financial flexibility, increases the possibility of bankruptcy and usually a lower credit rating amongst many others. Debt financing has some benefits also such as interest on debt is tax deductible.

Modigliani & Miller (1958) capital structure irrelevance theory argues that in the presence of perfect capital market i.e. in the absence of "taxes and information asymmetries" capital structure does not affect share price of a firm despite using whatever combination of debt & equity. However, in real world capital structure does affect the firms' value. Miller (1988) suggested that a firm's value is influenced by capital structure because of market imperfections. The conflicting conjectures of Miller lead to the creation of two main capital structure theories: The Trade - Off Theory & The Pecking Order Theory.

Myers & Majluf (1984) Pecking Order Theory (POT) argues that there is no optimal capital structure for an individual firm that will increase the firm's value. The firm's manager will finance new investment projects by using pecking order hierarchy. It starts with using internal funds first then the less risky debt and finally issue new securities because of asymmetric information and high risk level. Modigliani & Miller (1963) proposed the Trade - Off Theory. It states that by balancing the benefits and costs of debt there is a target debt level that maximizes shareholder wealth. The benefits of debts comes in the form of tax saving and reduction of free cash flow which can increase a firm's value. However, it shall be kept in mind that a high debt to equity ratio also increases bankruptcy costs and agency conflict costs. Myers (1984) embracing the Trade - Off Theory explained that a firm should frequently adjust its capital in accordance with anticipated optimum level. Conversely, imperfection in capital market may avert sudden change. This refers to adjustment costs and describes that firms tend to move away from their target capital structure when the adjustments costs are high.

Subsequently, the choice of capital structure is of vital importance for firms and optimal capital structure is such a combination of liabilities & equities that increases the share price and decreases the weighted average costs of capital (Akhtar & Oliver, 2009). There are many factors which effects capital structure choice of a firm such as profitability, liquidity, size, tangibility, non-debt tax shield, earning variability and growth opportunities etc. Given the divergent postulates of the capital structure theories and the inconclusiveness of empirical studies as will become clear from the literature review it is imperative to keep exploring the different factors influencing the capital structure decision of a firm with new variables and distinct time periods for a unique set of industries or sectors. In this perspective this study attempts to analyse the factors that affect the capital structure of PSE operating non-financial firms in Pakistan.

## Problem Statement

Factors determining the capital structure of non - financial firms in Pakistan.

## Research Questions

1. Does a firm's profitability affect its capital structure choice?

2. Does liquidity affect the capital structure decision?
3. Does firm size have any impact on leverage ratio?
4. Does asset tangibility affect the firms leverage ratio? And
5. Does non-debt tax shield affect the capital structure?

### **Research Objectives**

This research primarily aims to analyse: the factors determining the capital structure of non-financial firms in Pakistan. The effect of profitability, liquidity, firm size, non - debt tax shield and tangibility on leverage ratio are analysed to answer the principal objective.

### **Research Hypothesis**

The following hypotheses are developed to answer the research question of this study.

H0: The controlling variables do not affect the capital structure of a non - financial Pakistani firm significantly.

H1: The controlling variables significantly affect the capital structure of a non - financial Pakistani firm.

### **Limitations of the Study**

The limitations of the study are given below.

This study is confined only to those variables which can affect the capital structure choice of the non - financial firms operating in Pakistan such as firm's profitability, liquidity, size, tangibility and non - debt tax shield. There are several other elements which can affect the capital structure choice which are not included in this study. Due to unavailability of complete data only ten non - financial firms for which complete data was available during the selected time horizon are chosen.

### **Scope of the Study**

This research study is confined only to non - financial firms operating in Pakistan for the time period of 2005 to 2014.

### **Scheme of Study**

The study is divided into five parts. Part one is the introduction, two the literature review. Part three discuss research methodology and develops the theoretical framework diagram. Part four includes data analysis, model specification, descriptive statistics, multicollinearity, heteroscedasticity and the empirical results. Part five summarising the results concludes the research study.

### **Literature Review**

Chen, Lensink and Sterken (1998) examined capital structure determinants of Dutch firms. Using panel data it was concluded that pecking order theory (POT here after) is most appropriate for describing financing decision of Dutch firms. The study shows that measurement choices of leverage can yield completely different empirical results. For instance the relationship between leverage and explanatory variables do not yield the same sign with respect to book value and market value leverage.

Chen (2004) studied capital structure determinants of the Chinese listed companies. Using regression analysis on data from the balance sheets of listed Chinese companies for five years from 1995 – 2000, it was found that profitability, tangibility and firm size have a significant impact on long term leverage ratio. The study shows that the coefficient of size is significantly negative for long term leverage but positive in total leverage estimations. Shah and Hijazi (2004) worked on the capital structure determinants of 445 Karachi Stock Exchange listed non -

financial firms from 1997-2001. Applying pooled regression model it was found that tangibility is positively related with leverage ratio but statistically insignificant, while size has positive association with debt ratio. This research also shows that profitability has a strong negative association with debt ratio and thus linked with pecking order theory.

Drobtz and Fix (2005) worked on capital structure determinants of Swiss firms. They tested leverage forecasts of trade-off theory (TOT here after) and POT models by using a representative sample of Swiss data. Their study illustrates that leverage for Swiss firms at an aggregate level is comparatively low. The study also shows that firms having more investment opportunities are less dependent on leverage and follow both the TOT & POT.

Huang (2006) investigated the capital structure determinants of 1200 Chinese listed firms from 1994 - 2003. It is found that size and tangibility have a positive impact whereas profitability and non - debt tax shield have a negative association with debt ratio. This study concludes that Chinese companies tend to have a lower long term debt.

Rafiq, Iqbal and Atiq (2008) examined capital structure causal factors of 26 KSE listed Pakistani chemical industry firms for 1993 - 2004. Pooled regression analysis suggests that profitability and tangibility have a negative sway on debt ratio and these results are consistent with pecking order theory (POT). Their study also shows that non-debt tax shield has positive bearing on leverage ratio.

Afza and Hussain (2011) studied capital structure determinants of selected manufacturing sectors of Pakistan including seven cable & electrical goods and eight engineering firms for five years from 2003 to 2007. Using pooled regression analysis it is shown that both trade - off theory (TOT) & pecking order theory (POT) determine capital structure. Tangibility and size of automobile & engineering sectors have insignificant positive impact on debt ratio. On the contrary, in cable and electrical goods they exert a negative influence on leverage. Awan, Rashid and Rehman (2011) explored the factors effecting capital structure of 31 sugar and allied industries of Pakistan for the years 1996 to 2004. Utilising pooled regression method it is concluded that only profitability have a significant effect on leverage. Sheikh and Wang (2011) scrutinised factors that affect capital structure choice of 160 Pakistani manufacturing firms from 2003 to 2007. Their findings show that profitability, liquidity and tangibility has a negative whereas size has a positive association with leverage ratio. This study also shows that non-debt tax shield has no significant association with debt ratio. These findings are in accordance with TOT, POT and agency theory.

Lim (2012) worked on capital structure determinants of 31 A-share Chinese financial service firms for 2005 to 2009. This study found that profitability and non - debt tax shield have negative relationship with leverage while size is positively associated with it. Qayyum (2013) analysed capital structure determinants of 70 cement sector Pakistani companies from 2007 - 2009. Through correlation analysis it was found that all the explanatory variables have significant relationship with leverage except size.

Alzomaia (2014) scrutinized capital structure determinants of 93 publicly listed firms of Saudi Arabia from 2000-2010. Employing cross-sectional pooled data model it is found that size exerts a direct positive influence on capital structure whereas tangibility of assets and firms profitability have a negative influence on capital structure. Awan and Amin (2014) explored capital structure determinants of 68 Pakistani textile firms from 2006-2012. Applying panel data techniques it is found that liquidity, non - debt tax shield and tangibility have statistically significant linear relationship with leverage while profitability and firm size negatively influence debt

ratio. It means that Pakistani textile sector follow both trade-off and pecking order theory. Baltaci and Ayaydin (2014) considered macroeconomic factors that affect the capital structure of Turkish banking sector firms. Exploiting regression analysis on quarterly firm - level data of 39 banks from 2002-2012, it is found that firm size and leverage ratio are positively related, while assets tangibility and firm's profitability are negatively linked with leverage. The results for tangibility and profitability are related with POT, while the one for firm size is associated with TOT. Bassey, Arene and Okpukpara (2014) probed capital structure determinants of twenty eight Agro-allied firms in Nigeria from 2005-2010. Employing OLS it was concluded that size & profitability of firm are negatively associated, while growth has a significant positive relationship with short term leverage. It is also suggested that profitability has a negative whereas size has a statistically positive impact on long term leverage. These results followed POT. Masnoon and Saeed (2014) analysed capital structure determinants of ten KSE listed automobile companies from 2008-2012. The results show that profitability and liquidity of a firm have negatively significant while size and tangibility have insignificant correlation with debt ratio. Osaretin and Michael (2014) examined factors determining capital structure of 20 Nigerian listed firms. By applying cross sectional analysis they found that firm's profitability has insignificant and negative impact on debt ratio, whereas the impact of size was not confirmed in the model. Several other factors which can affect the capital structure choice such as assets tangibility and liquidity are not included in this study.

## **Research Methodology**

### **Population of the Study**

The population of this study comprises of all non - financial firms operating in Pakistan including manufacturing, cement, textile, sugar, engineering, electrical, pharmaceutical and oil & gas etc.

### **Sample of the Study**

In general the sample of study targets all Pharma, Oil and Gas companies of Pakistan. However, several adjustments have to be made and finally it focuses exclusively on those firms for which complete data was obtainable for ten years from 2005 - 2014. Eventually, choosing only ten non - financial sector firms of which four are Pharma and six Oil and Gas companies.

### **Data Collection Method**

The data is secondary in nature and is collected from annual reports i.e. financial statements, profit & loss accounts and cash flow analysis of Pharma, Oil & Gas firms operating at PSE.

## **Theoretical Framework**

Theoretical framework is an indispensable part of the research methodology to be employed. It is defined by Sekaran and Bougie (2003, page 97) as "a framework which describes the relationship amongst the variables, elaborate the theory carrying these associations and defines the nature and way of the association". Based on these associations and the researchers personal intuition and knowledge he/she formulates a theoretical model through which reasonable arguments or hypothesis concerning the relationship amongst the numerous factors that have been recognized as essential to the problem are developed and tested (Shah & Afridi, 2015).

## **Capital Structure Theories**

### **Modigliani & Miller Irrelevance Theory**

To determine the optimal capital structure many research studies have been conducted in order to enhance the share price of a firm. Modigliani and Miller (1958), Irrelevance Theory postulates that under perfect capital

market a firm value is not affected by its capital structure. It means that share price of a firm is free of optimal capital structure. But in reality because of market imperfection optimal capital structure does affect the share value. In order to recognize the influence of taxation, asymmetric information & agency problem in relation to capital structure, the Trade - Off Theory, the Pecking Order Theory and Agency Cost Theory have been established respectively.

### **The Trade - Off Theory**

The Trade - Off Theory (TOT) of capital structure was introduced by Modigliani & Miller (1963) which suggest that by balancing the benefits of tax saving and cost of bankruptcy there is a target level of debt that increases share value. TOT mainly explains two concepts: financial distress & agency costs. This theory argues that debt financing is advantageous because the interest paid on debt is tax deductible. Firms are interested in raising cash flows & therefore, will prefer a higher debt level at a higher tax rate. Thus, tax rate is positively associated with leverage. Nonetheless, the chances of inability to repay the debt surges with the rising of debt beyond the optimum level. Consequently, a firm can even get insolvent and as a result of default the ownership/control passes from shareholders to bond holders. The insolvency costs consist of direct and indirect bankruptcy costs.

### **The Pecking Order Theory**

Pecking Order Theory (POT) also known as the information asymmetry theory was postulated by Myers and Majluf (1984). This theory states that firms use internal funds such as retained earnings first because of relatively low costs than debts. It then uses debt financing because of relatively lower costs than equity. By introducing the information effect Myers and Majluf argue that “asymmetric information” influences a firm’s value. For example declarations made by the managers about the expected changes in capital structure provide a direction to contemporary & prospective investors to make new or withdraw their existing investments. Myers (2001) suggested the pecking order hierarchies as: A firm will first choose retained earnings, then select external finance and will finance with equity as a last resort. Because of asymmetric information the firms’ managers have more information in comparison to outside investors. Hence when securities become overvalued in financial market then the managers shall issue new securities.

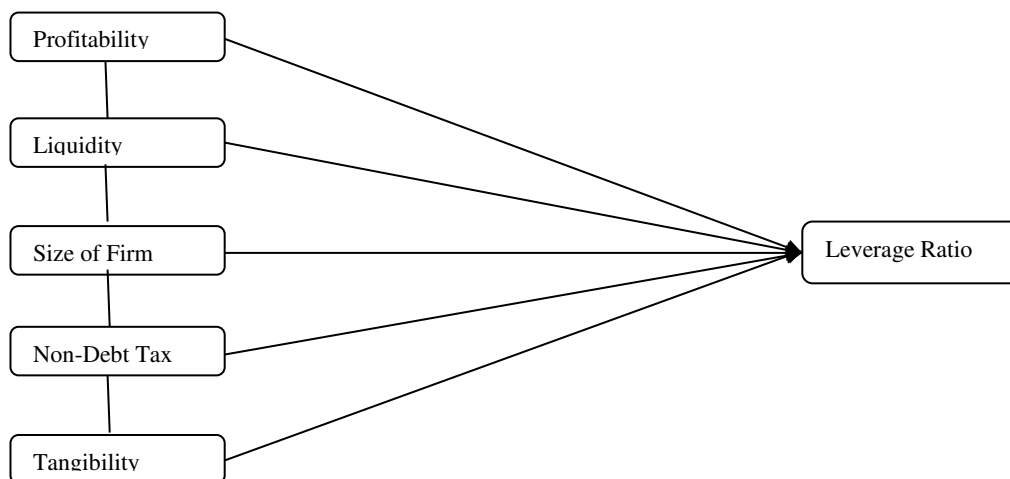
### **The Agency Cost Theory**

The typical Agency Cost Theory was presented by Berle and Means (1932 & 1991). It recognises that there is a conflict between shareholders and managers interest. The firm manager is interested in the maximization of his own wealth, while the shareholders want to maximize value of the firm. To resolve these conflicts between managers and shareholders agency cost theory provide decision rights and incentives. According to Simerly and Li (2002) the incentives recommended by agency theory to realize the allocation of capital from organization to investors is debt financing. The use of debt by the firm causes agency costs. The conflict between debt providers and manager on one side and shareholders on the other leads to agency costs. Debt financing is a tool of diminishing the volume of free cash available to the manager. This in turn eliminates the conflict between manager and shareholder. Barnea, Haugen and Senbet (1980) suggested that the agency costs because of asymmetric information can be resolved through debt maturity structure and call provision. Hence, the agency cost theory provides a good justification for firms to raise the amount of debt in the capital structure as a disciplinary guide to a firm manager.

## Dependent and Independent Variables

After explaining various theories of capital structure the potential controlled and controlling variables are discussed below and the theoretical framework diagram is also presented. Total debt to total asset ratio which is a proxy of leverage is used as the dependent or controlled variable. There can be several controlling variables, however only five of them such as profitability, size, liquidity non - debt tax shield and tangibility of the firm are used as the controlling or explanatory variables in this study.

### Theoretical Framework Diagram



The theoretical framework diagram shows the relationship between the independent explanatory variables: profitability, liquidity, size, non-debt tax shield and tangibility with the dependent or explained variable: leverage.

### Measure of Leverage

Several research studies have used market or book value based measures of leverage and even both. However, in this study total debt to total assets ratio is used as a measure of leverage. The possible effect of profitability, liquidity, non - debt tax shield, tangibility & firm size on leverage is analysed. According to TOT leverage is positively influenced by profitability, liquidity, tangibility & size, whereas, according to POT leverage is negatively influenced by these factors.

### Profitability of the Firm

Profitability is defined as a financial ratio which shows the effectiveness of a firm or the ability of a firm to generate profit by optimal utilization of its resources. TOT demonstrates that profitability of a firm has positive direct association with leverage. It indicates that profitable firms have greater income to shield tax, so for making profit firms will finance their assets through debt creation. On the contrary, POT indicates an inverse relationship between firm's profitability and leverage. Thus, a firm will finance its operations first through retained earnings then debt financing and finally equity financing. Asymmetric information cause both firms and investors to have different levels of cognisance about the firm's performance.

### Firm Size

Firm size can be calculated by taking total assets or total sales. TOT suggests a positive impact of firm size on debt ratio. Fattouh, Harris and Scaramozzino (2008) suggested a linear association between them. While



POT suggest that size has negative influence on leverage. Rajan and Zingales (1995) found that large firms go for equity financing because of asymmetric information.

### Tangibility of the Firm

According to TOT a firm's fixed assets are positively related with debt ratio. Miller (1998) and Myers and Majluf (1984) advocated that the collection of firm's assets influence financial policies of the firm. Whereas, pecking order theory shows a positive association between fixed assets and long term leverage and negative association between fixed assets and short term debt ratio.

### Non Debt Tax Shields

According to the studies of Myers (1984); Myers and Majluf (1984); Masulis and Korwar (1986); DeAngelo, DeAngelo and Whited (2011) both TOT and POT shows negative relationship between non-debt tax shield and debt ratios. However, other empirical results shows leverage is positively influenced by non-debt tax shield for example Karadeniz, Kandir, Balçilar, & Onal, (2009).

### Liquidity of Firm

Liquidity of firm is defined as the amount of current assets that are financed by current liabilities. Trade-Off Theory postulates that liquidity of firm has positive influence on leverage. Whereas, Pecking Order Theory suggests that liquidity of firm have a negative effect on leverage. This negative relationship is because of high agency costs of liquidity. A positive association on the contrary suggests that liquid firms are capable of paying its liabilities as they mature. Some research studies also found that liquidity of firm has a negative bearing on leverage e-g Sheikh and Wang (2011).

## Data Estimation Issues and Results

### Model Specification

The regression model can be specified as given below:

$$Leverage_{jt} = \alpha_0 + \beta_1 FirmSize_{jt} + \beta_2 Non - DebtTaxShield_{jt} + \beta_3 Tangibility_{jt} + \beta_4 Firm Profitability_{jt} + \beta_5 Current Ratio_{jt} + \xi_{jt} \quad 1$$

Where  $\alpha_0$  = Constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  are coefficients of the corresponding controlling variables and  $\xi_{jt}$  is the error term. t represents the time period and j a particular firm. Both vary from 1 to 10.

### Descriptive Statistics

Summary of the descriptive statistics for all the variables included in the model are provided as table one. It includes the total number of observations, the minimum value, the maximum value, as well as the mean and standard deviation for each one of them.

Table 1 Descriptive Statistics

Serial Number	Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
1	Leverage	100	0.5240	0.2700	0.0218	1.1332
2	Firm Size	100	16.8655	1.3887	14.5026	20.9164
3	Non Debt Tax Shield	100	0.0092	0.0092	0.0002	0.0400
4	Tangibility	100	0.4750	0.1874	0.0696	0.7822
5	Firm Profitability	100	0.1127	0.1242	-0.3267	0.3789
6	Current Ratio	100	2.2029	1.8329	0.3586	12.1735

## Multicollinearity

Multicollinearity is one of the most common problems of an econometric model (Shah, 2016). Multicollinearity to some extent always exists in the data. However, we have to check whether it is “severe” or not (Shah, 2017a). Multicollinearity can be detected through the correlation between the independent variables as well as the Variance Inflation Factor (VIF).

## Correlation

A very high correlation of 90 % or above between the independent variables shows the presence of possible problematic multicollinearity (Shah & Faiz, 2015). The correlation between all the explanatory variables is given as the correlation matrix in table two. It is evident from it that multicollinearity is inexistent in the current sample.

**Table 2 Correlation Matrix**

Serial Number	Variables	1	2	3	4	5	6
1	Leverage	100					
2	Profitability	-82	100				
3	Current Ratio	-70	67	100			
4	Firm Size	-16	31	44	100		
5	Non - Debt Tax Shield	-18	03	06	-22	100	
6	Tangibility	27	-45	-31	-28	45	100

## Variance Inflation Factor (VIF)

VIF can be defined as the factor by which the variance of an OLS estimator is inflated in the presence of very high multicollinearity (Shah & Qayyum, 2015). Variance inflation factor values vary between 1 and infinity. If the value of VIF is exactly 1, then there will be absolutely no multicollinearity in the model which is an ideal situation (Shah, 2017b). If the VIF value is less than 10 then the model is acceptable but a VIF value equal or greater than 10 exhibits the existence of problematic multicollinearity and hence one of the collinear variables have to be removed from the model (Shah & Samdani, 2015). It can be seen from table three that VIF for all the variables is less than ten and the mean VIF is also just 1.75. Hence problematic multicollinearity is inexistent in the models/regressions estimated.

**Table 3 Variance Inflation Factor Values**

Variable	VIF	1/VIF
Profitability	2.13	0.4697
Current Ratio	2.10	0.4768
Firm Size	1.72	0.5824
Non – Debt Tax Shield	1.46	0.6848
Tangibility	1.35	0.7408
Mean VIF	1.75	

## Heteroscedasticity

One of the assumptions of ordinary least square is that  $Variance [\xi_j] = \sigma^2$  for all  $j$ . In other words the variance of the error term  $\xi$  is constant or homoscedastic (Shah, 2011b). If the error term fail to exhibit homoscedasticity or doesn't have a constant variance it is then said to be heteroscedastic (Shah & Ali, 2016). If heteroscedasticity is present then the errors may increase as the value of the heteroscedastic dependent or independent variables increases (Shah, 2011a). Moreover, the standard errors are biased when heteroscedasticity exists. This in turn leads to bias in test statistics and confidence intervals (Shah & Khan, 2016). To check for the existence of heteroscedasticity Breusch Pagan / Cook Weisberg test was performed. It shows its absence in the dependent variable leverage with the following statistic: Probability  $>$  Chi2 (1) = 0.6581. The independent variables were also homoscedastic as evident from the following values probability  $>$  Chi2 (5) = 0.0608. We are unable to reject the null hypothesis of homoscedastic standard errors in both the cases.

## Regression Analysis

To choose the precisely applicable panel estimation technique between the fixed and random effect method the Hausman (1978) specification test was performed. We can easily reject the null hypothesis that random and fixed effects will give the same results with the following results: Probability  $>$  Chi2 (5) = 0.0000. Therefore, fixed effects panel estimation technique is employed for calculating the results for the five regressions / models given in table four.

The results for the firm size clearly manifests that it positively affects the leverage ratio of a firm. As the firms get bigger and bigger its capital structure tilts more towards debt rather than equity. When non-debt tax shield is added in the second model it is evident that an increase in non - debt tax shield will increase the leverage ratio. The coefficient for non - debt tax shield is significantly positive.

**Table 4 Results: Panel Fixed Effect Estimation Method**

Variables Used	1	2	3	4	5
Firm Size	0.0688*** (0.0176)	0.0774*** (0.0175)	0.0836*** (0.0170)	0.0402** (0.0161)	0.0375** (0.0159)
Non-Debt Tax Shield		3.7673** (1.5128)	2.8362* (1.5037)	2.9596** (1.2705)	2.9974** (1.2545)
Tangibility			0.2499*** (0.0936)	0.1843*** (0.0798)	0.1490* (0.0812)
Profitability				-0.8649*** (0.1444)	-0.8311*** (0.1438)
Current Ratio					-0.0128* (0.0071)
R-Square	23.90%	28.63%	34.70%	46.07%	55.76%
Number of Observations	100	100	100	100	100

\*\*\* Exhibits significance at 1%, \*\* at 5% and \* at 10% significance level. The coefficients for the estimated betas are given with their standard errors in parenthesis below each of them.

Bringing in tangibility in model three (table four) along with firm size and non - debt tax shield it also exerts a significant and positive influence on the debt proportion in the capital structure of a firm. It implies that

when the proportion of fixed or tangible assets of a firm increases so is the amount of leverage it employs in its capital structure. It seems normal because it is easy to take loan for or against tangible assets than intangible ones. Tangible assets include both fixed assets, such as machinery, buildings and land, and current assets, such as inventory. Intangible assets are nonphysical assets, such as patents, trademarks, copyrights, good will and brand recognition.

Profitability of a firm exerts a significantly negative effect on the leverage ratio of a non - financial firm in Pakistan as shown by the coefficient for profitability in model four and five. If a firm become more profitable by one unit the leverage ratio will decrease by 0.86 units (regression four). The results for profitability and current ratio follow the same pattern. Obvious from the coefficient estimates in model five, table four, current ratio negatively influence leverage in a firm's capital structure. The overall R-Square of the model is 55.76 % meaning that by applying the five variables we are able to explain 56 % of the variation in the leverage ratio, which seems reasonable.

To sum up the results show that the effect of profitability and liquidity are in line with Pecking Order Theory and the influence of size; tangibility and non - debt tax shield are following the Trade - Off Theory.

## Conclusion

Capital structure is the mix of firm's debts and equity that is used by the firm to finance its operations. One of the primary responsibilities of a firm's manager should be to choose an optimal combination of debt and equity in the firm's capital structure leading to increase the firm value (shareholder's wealth).

This research is carried out to investigate those factors which affect the capital structure of PSE listed non - financial firms in Pakistan. Using fixed effect panel estimation technique, data for ten companies including four Pharma and six Oil & Gas companies were collected for ten years from 2005 to 2014. The results show that profitability and current ratio have significantly negative association with leverage ratio while size, tangibility and non-debt tax shield have a significant positive one. Pecking order theory justifies the negative significance of the current ratio and profitability. The positive significance of size, non - debt tax shield and tangibility are consistent with the trade - off theory.

These results are certainly a valuable addition to the subject's empirical literature, especially given the inconclusiveness of the earlier results pattern varying between industries, time periods and different countries / regions of the world. Therefore, it is recommended that there is always space for conducting another study in this area by using certain other variables and factors such as earning variability, growth opportunity, taxation effect, capital adequacy, GDP growth, risk-weighted assets, country/industry level effects, ownership structure and dividend pay-out etc. in future.

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