European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.9, No.25, 2017

Impact of Capital Structure on Firm's Financial Performance: Textile, Automobiles, Sugar, Petroleum & Engineering Industry of Pakistan

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Abstract
The purpose of this study to measure the impact of capital structure (leverage) on the financial performance of listed companies in the sector of Textile, Automobiles, Sugar, Petroleum and engineering industry of Pakistan. The data was collected for the period of four years from 2012-2015. The data were extracted from the 21 firms for study. The Ordinary least squares models and Correlation are used for analysis the proxies. The results display that leverage measured by Debt to Assets has a statistically significant negative effect on firms' financial performance measured by Return on Assets at 99.9% confidence interval.
Keywords: Financial leverage, Capital Structure, Firms' performance.

1. Introduction

1.1 Background of the Study

Financing decision is very important for the companies and financing is made by the mixture of debt and equity. The mixture of financing is called the capital structure. The debt is the amount, obligations payable to the creditors with in specified period. The Indian Research shows the inverse relationship between the leverage and the company performance, due to the lending institutions are strictly governed by Indian Government (Majumdar, 1997).

Jensen & Meckling (1976) had written in their study that conflicts and problems are created between the shareholders and debt providers due to the financial performance. It may lead to smashes due to variety of investment either debt or mix of both (Myers, 1977).

Majumdar & Chhibber (1999) had shown an inverse relation between corporate debt and company financial performance. This is due to the high pressure of the agency cost. The similar results were shown by the study of Mahakud & Misra (2009). It was found that during industry recessions when highly geared companies fail to respond the market share to their rivals which were lower geared.

1.2 Research Objective

The main objective of this study is to find importance of capital structure and its impact on the performance of Textile, Automobiles, Sugar, Petroleum and engineering sectors. This study will helpful for the company's directors and managers while making financing decisions.

1.3 Research Question

Is there effect of capital structure on financial performance of Pakistan Textile, Automobiles, Sugar, Petroleum and engineering sectors?

2. Literature Review

The current literature emphasis the capital structure factors. In developing countries the factors of capital structure depends on the similar variables as are of firms in developed countries. Booth et al. (2001). He accompanied study on ten developing countries. Singh (2010) had shown the results of his study that capital structure decision depends on the firm's own characteristics and country's macroeconomics.

The firm's capital structure's means debt, equity or a combination of both and this optimal of structure matters the most. Modigliani & Miller (1958) study had given the basic research on the topic of capital structure. In consistent the firm's value depends upon the real assets instead of it's depends on the capital structure. The similar study conducted by (Stilglitz, 1972; Hatfield et al., 1994). The performance is a considerable point of the companies with respect to the company capital structure (Akintoye, 2008). Jensen (1986) had shown the results that which company has more leverage it can increase the financial performance, due to the companies managers are unable to initiate the negative NPV projects.

The pecking order theory with some development brings to the end that absence of information is a major factor. (Fama & French, 2005). Another research conducted by Bharath, Pasquariello & Wu (2006) to conclude that information about the firm level is essential for the sectional analysis but it is not sole factor for the firm capital structure.

Eriotis, Franguoli, and Neokosmides (2002) had shown a negative relation between debt and profitability of

the companies. The data had collected from the different sectors of the companies. The study was conducted in Hong Kong's property sector showed a similar negative relation Chiang, Chang & Hui, 2002).

Furthermore a study was conducted in Ghana for examine the relationship between the capital structure and listed companies performance. It had showed that debt to asset and current liabilities to total assets positive effect return on equity while long-term liabilities negatively effects on it (Abor, 2005).

Another study had taken in the region of Africa by Kyereboah & Coleman (2007) on micro finance banks; the study examines the effect of capital structure on return on equity and return on assets derived to the conclusion about negative relation between leverage and performance. Leverage is negatively related with the performance, PE ratio depicts an insignificant effect (Zeitun & Tian, 2007). Similar conclusion was shown by the study of DeAngelo & Masulis (1980). It is showing best capital structure tradeoff model. Moreover, there was no relation between debt to asset ratio and non-debt tax shield. The change in the leverage due to the change in the capital structure will lead to increase in the share price. This study shared for the capital structure model by (Harris & Raviv, 1991).

The capital structure and dividend policy are used as indication devices. Top-level management can go for making decision of financial policy through the widely available market information, if the market does not give the response of efficiency. The reaction leads to financial distress and capital structure this connection was studies by the Ofek (1993). There are two types of costs that effect to the firm bankruptcy one is that direct and second is that indirect cost. Very few studies have been conducted in developing countries such as Pakistan in which no study done in aforesaid five sectors specifically Textile, Automobiles, Sugar, Petroleum and engineering.

The literature tells us about the different results on the relationship between financial performance and capital structure. Pakistan capital market had optimal level of asymmetric information then other developed countries markets. So in this study we are going to examine the impact of capital structure on the Pakistan firm's financial Performance listed in Automobiles, Textile and Engineering sector.

3. Methodology

3.1 Research Approach

In this study we use the quantitative technique for examine the relationship between the company's capital structure and the financial performance.

3.2 Research Sample

Total twenty one listed firms has been selected for the conducting this research, from Pakistan stock exchange, Pakistan. The data for the remaining one company was incomplete and have been filtered out. Sample consists of 82 observations for period of 4 years i.e. 2012 and 2015. The firms were selected on the basis of availability of the data for the above given years.

3.3 Data

Secondary data has been used for this study. Sources of data include:

- ✓ Annual financial statements
- ✓ Official announcements from Company's websites
- ✓ Pakistan stock exchange and Securities and Exchange Commission website.

3.4. Statistical Technique

Correlation has been applied for the relationship between the returns and leverage, moreover regression is to find out the impact of leverage on firm's return using SPSS.

3.5 Research Model

We have used the following regression model for measure the relationship:

$$\overline{\overline{\overline{ROA}}} = \alpha + \beta * \text{Leverage} + \in$$

3.6 Hypothesis

Ho: There is no relationship between leverage and firm's financial performance.

3.7 Symbol of Financial performance and its description:

Symbol	Variable	Definition
ROA	Return on Assets=	Profit after Tax/Total Assets

3.8 Symbol Variable Definition

Symbol	Variable	Definition
D/A	Debt to Assets =	Total Debts/ Total Assets

In consistent with literature review these variables had used by Majumdar & Chhiber (1999) and Ahmad, Salman & Shamsi (2015) in their research.

4. Data Analysis

4.1 Descriptive Analysis

The following table depicts the results of descriptive statistics summary for the dependent and independent variable.

Descriptive Statistics

	Mean	Std. Deviation	N
ROA	.0767	.19395	82
DEBTOASSET	.5491	.63072	82

The descriptive statics table depicts the mean of ROA is .0767 and standard deviation is .19395. The mean value of Debt to Asset is .5491 and standard Deviation value is .19395.

Correlations

		ROA	DEBTTOASSET
Pearson Correlation	ROA	1.000	-.507
	DEBTOAS	-.507	1.000
Sig. (1-tailed)	ROA	.	.000
	DEBTOAS	.000	.
N	ROA	82	82
	DEBTOAS	82	82

The correlation table shows the negative correlation with value -.507 between leverage and the financial performance of the firms which is the significant at the level of 1%. To conclude the results of correlation means increase in leverage will results decrease in financial performance.

4.2 Inferential Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.507[a]	.257	.247	.16825

a. Predictors: (Constant), DEBTOASSET

The above table shows the extent of variability in the dependent variable which has explained by the independent variable. The value of R^2 displays at 0.257 which expresses that around 25.7% of variability of financial performance is described by leverage. Adjusted R^2 is around to R^2 which means there is no sample error.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.782	1	.782	27.639	.000[b]
	Residual	2.265	80	.028		
	Total	3.047	81			

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBTOASSET

The overall validity of the model is depicted by ANOVA statistics. The F-stat value is 27.936 which is higher than 4-cuttoff for F-stats. Moreover significant value shows significance of model and explanatory power of the model at 1% level.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.009	.025		.360	.000
	DEBTOASSET	-.156	.030	-.507	-5.257	.000

a. Dependent Variable: ROA

The table of coefficients shows the slope of the function, sign of the slop displays direction of the relationship and magnitude shows intensity of the relationship. The results tell us that if 1% increases in the Leverage it will decrease the return of firm 15.6%. T-stat is 5.257 which is greater than 2-cutt off for t-stat. As the coefficients table shows the associated significance value lesser than 1%, so the model is significant at 1%.

5. Conclusion, Limitation, and Recommendations

5.1 Conclusion

The main objective of this study is to analyze the effect of capital structure on profitability of the companies listed in the Textile, Automobiles, Sugar, Petroleum & Engineering sectors of Pakistan Stock Exchange. The above given results have provided the evidence that there is a negative relationship between the financial performance and leverage. Our study indicates that if the leverage increases , the profitability decreases. Parallel outcomes were determined by research done by Eunju and Soo Cheong (2005), Ahmad, Salman & Shamsi (2015).

Though a study showed in Ghana indicated a different results due to selection of sample of only top twenty firms due to the lower cost of debt in that countries while high cost of debt in Pakistan. The results display a negative correlation between the Debt to Asset and Return on Asset. Also the research results value of R^2 shows that the variability explained is 19.50%, remaining is unexplained.

5.2 Limitation & Recommendations

The data for our research was extracted from 2012 to 2015. The complete data for the particular period was only available for 20 firms. So this study can be extended through the availibity of complete data and the time period can be increased. So in this direction the sample will produce more accurate results. This is recognized these sectors have more trading in the stock exchange and have high leverage in our country Pakistan.

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