Impact of Capital Structure Determinants on Pakistan's Economy

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Introduction

Capital Structure is said to be one of the controversial topics in field of economics and in financial management decisions on capital structure is considered very vital and decisive. It is generally defined as "way firm assets are financed through debt, hybrid securities or equity. Value of firm's Capital Structure has always been burning issue. From management perspective capital structure is a very healthy mean to control the cost of capital. Different ways of financing its assets can be adopted by a company and the key objective is to attain the optimal capital structure where minimum cost of capital can be reached. Furthermore a firm can be levered or unlevered.Companies with no debt financing are called unlevered while companies go for debt financing is called levered. The behavior of firm financing can differ with regard to different sides and this had introduced different theories of capital structure under certain suppositions.It was considered as a founding work and its assumptions were unrealistic in nature which gave birth to some other theories such as pecking order theory (POT) and trade-off.

Different aspects of capital structure have been explained by these theories but on the other side empirical evidences are not every time backing these theories. Some professionals in finance believe that with the increase in leverage the market value of firm increases. This mainly shows that firm having more percentage of debt financing attains the optimal capital structure but surely this statement is rejected by other financial professionals. So these theories lead to controversy that what is the optimal capital structure point. Too much of study has been done on the this topic in developed countries and work of the researcher is to check the potential determinants in a different market. Moreover study that also the conclusions drawn from the several theoretical and empirical researches are effective for developing markets like Pakistan.

1.1 Determinants of Capital Structure

This Research mainly addresses the question, that what are the determinants of capital structure in Fuel and energy sector of Pakistan. There are various worldwide studies showing various results about companies financing behavior. Earlier Booth et al. (2001) have analyzed the determinants of capital structure of ten developing countries comprising Pakistan based on KSE 100 index from the period 1980-1987. Shah and Hijazi (2004) did the founding work in Pakistan with regard to the capital structure. Their work is considered as good base for further study in Pakistan. We are specifically focusing on the fuel and energy sector because it is considered as a largest sector in Pakistan which is largest with regard to consumption and this sector's performance can make a solid and substantial impact on the economic development of Pakistan.

1.2 Overview of Fuel and Energy Sector of Pakistan

The importance of fuel energy has been much known with respect to the old-style factors of production, specifically land, labor, entrepreneurship and capital. Fuel and energy sector comprise electricity, natural gas, crude oil and hydro power. There is a strong relationship of this sector with economy of the country. Supply and Demand of this sector has a massive impact on economic development of country. Since the start of this century fuel and energy sector has seen lot of changes and volatility and its consumption has been increased by 9 million barrels a day.

The fuel and energy sector in Pakistan includes gas, oil, and power. Country's GDP growth rate is 6.6 % and energy sector's growth rate is 8.6%. Pakistan has indigenous reserves of natural gas, oil and coal, which offer 61.0 percent (24.7 million Tons of Oils equivalent) of the total net primary energy supplies. The essential energy supply consists of natural gas (51 percent), oil (28 percent), hydroelectricity (13.0 percent), coal (7 percent) and other sources (1 percent). In new century, due to mixture of increased oil utilization and stable oil production, the oil import has increased. Demand of gas increased with 7 percent, electricity demand has also increased rapidly. From the following figure we have observed that energy sector is the largest sector by size in Pakistan's economy.



Demand of Fuel and energy in Pakistan had grown-up at an annual consumption growth rate of 4.8% in previous five years. On the other side there is chance that it can grow at 8 to 10% per annum. For that reason, requirement is also very high for a very extraordinary and constant growth in supply of fuel and energy. The consumption of Fuel and energy 43.8 % Natural Gas 39 % Oil 11 % Hydroelectricity 5.2 % Coal 1 % Nuclear while Sectorial Share of Energy Consumption in Pakistan includes 34.4% Transportation 34.2 % Industrial 23 % Residential 3.1 % Commercial 2.6 % Agriculture 2.7 % Government. Current predictions about the energy sector are that the deficit in energy will increase from 29 percent to 46 percent by 2015.

1.3 Objectives of the study

To identify the determinants that influence Capital Structure.

To identify which specific determinant significantly Influence the financing behavior of fuel and energy sector of Pakistan.

1.4 Purpose of the study

The purpose of this study is to check that whether determinants are the important predictors of firm's capital structure in Fuel and energy sector of Pakistan. Secondly what impact is made on the capital structure of the firm. We also want to check whether our results support the prediction of theories. The basic purpose of the study is to test the Trade-off theory and Pecking order theory. These two theories have conflicting empirical prediction regarding different firm determinants. We will check which theory has more backing in the fuel and energy sector of Pakistan with the latest available data.

1.5 Structure of the Study

Paper is separated with five chapters. In the first chapter we will introduce the topic, objectives of our study and present the purpose. In the second chapter some previous capital structure theories will be discussed and formerly found empirical evidences. In the third chapter our methodology will be explained, the dependent and independent variables and expected relationship will be explained. Chapter four involves application of descriptive statistics and statistical models. Different tools of statistics are applied to analyze the data. Brief description of each model has been discussed with its assumptions and defense of the fitness of each and every model. Chapter four also includes the results interpretation of the regression and argument of the hypothesized prediction of the previous theories and acceptance or rejection of these theories predictions. In the last chapter we have concluded the topic in few paragraphs. It comprises of the overall structure of the research along with its methodology and the results tested found after application of the model.

1.6 Research Methodology

The research methodology of this paper includes sample and the sources of data. Moreover the measurement technique of our dependent and independent variables, their relationship with leverage from empirical evidences will be discussed and state our hypothesis.

1.6.1 Sample

This study is focusing on Fuel and Energy Sector of Pakistan. 17 Fuel and Energy sector companies have been taken as our sample.

1.6.2 Data Sources

The published data has been taken from "Balance Sheet Analysis of Joint Stock Listed companies "from the period 2005-2010".

1.6.3 Data Analysis Technique

This research uses panel data regression model using pooled regression type of data analysis, correlation and descriptive statistics.

1.6.4 Hypothesis

There are four hypotheses which will be tested are

HYPOTHESIS 1: There is negative relationship between profitability and leverage.

HYPOTHESIS 2: Size of the firm is positively related to firms leverage

HYPOTHESIS 3: Firms with higher ratio of fixed assets will borrow more

HYPOTHESIS 4: There is positive relationship between growth and leverage.

Literature review

The literature review is based on different theories on capital structure.

2.1 Capital structure theories

2.1.1 Irrelevance Theory

Modigliani and Miller (1958) did the pioneering work in the field of capital structure by presenting Irrelevance theory in 1958. In their seminal paper they described that the value of the firm is independent of its capital

structure. Their theory is founded on the efficient market where there are no taxes, bankruptcy cost, agency cost and asymmetric information. No changes are made if the firm is raising its capital through issuing stock or selling debt. Furthermore the dividend policy of the firm is also irrelevant. This theorem is also famous as capital structure irrelevance principle. As this theory was based on some unlikely suppositions it gave birth to other capital structure theories.

2.1.2 Trade-off theory

Trade-off theory says that the firm controls the optimal capital structure as a trade-off between interest tax shield and cost of financial distress. According to trade-off theory firm optimal capital structure is the point where the tax advantages availed by debt financing balances the related cost such as bankruptcy. Static trade-off theory more assumes that a firm cannot constantly engage in reducing the cost of capital by employing more debt. There is an optimal point where the cost of capital is at minimum and if the firm goes above that optimal point the debt financing becomes riskier. Too much debt financing increases the risk of financial distress.

Capital structure theory has another approach that is the level of information held by the insiders and outsiders. This term is known as information asymmetry where one party has the well or in-depth information associated to other party in any transaction verdict. This generates an imbalance of power between the parties. Information asymmetry has certain implications in defining the capital structure of the firm. One famous theory which is known as signaling theory (ST) was postulated by Ross in 1977.

Ross (1977) stated that managers use signals to the outside investors in order to build investor's trust in the company. Firm's debt serves as a signal to the outside investors. Manager has an advantage of using better knowledge about the firm income distribution. By issuing more debt managers want to show higher confidence about the income distribution of the firm to the outside investor. Debt serves as a positive signal to the outside world about the stability of the firm and its smooth income generation that the firm is strong enough to pay its installments and interest payments. The Main objective is to increase the investor's confidence in the firm so the firm can increase the value of equity. When the firm will go for higher debt financing in its capital structure the value of equity will be increased. Another implication of the information asymmetry hints to the problem of over pricing of the new equity. Investors generally have the perception that managers have improved and relevant information and using that information they issue the risky securities when it is overpriced. This perception of over pricing of the new securities by the outside investors leads to underpricing of the new equity issue and may result in severe damage to the existing shareholders. For this reason whenever firm looking to start new projects and needs funding for it, they will not issue equity instead use internal generated funds i.e. retained earnings. If this is not enough firms try for debt financing and finally they will issue equity to finance its new projects. This is known as "Pecking Order theory" presented by Stewart c. Myers and Nicolas Majluf in 1984.

2.1.3 Pecking order theory (POT)

Myers and Majluf (1984) presented Pecking order theory (POT). It is considered as a seriously significant theory of corporate finance. Pecking order theory is based on an exact pattern of financing. It states that the firm will use a specific pattern while forming its capital structure. Initially a firm will finance its projects through internally generated funds i.e. retained earnings. If they are not enough firm will go for debt financing and at the end it will issue equity to finance its projects.POT is also considered as an alternate against the conventional trade-off theory.POT is considered as a good estimate of reality but testing of pecking order theory and the empirical evidences are not strongly sufficient to show that this theory should be considered as of first order importance in determining firms capital structure. Frank and Goyal (2000) tested the pecking order theory on extensive cross section of U.S firms over the period 1980-1998. They overruled all of the empirical predictions of the pecking order theory. They basically found that firms financing deficit cannot necessarily determine the corporate debt level.

The risk of excessive debt financing rises from two dimensions: First risk is linked with the creditors as they usually demand the higher interest rate and not allow the loan to the company. Second risk is linked with the

shareholder perspective. If the firm uses more debt they increase the risk of financial distress therefore it results in greater cost of equity. Thus there is an optimal point where the cost of capital is at minimum but beyond that point debt financing is not beneficial to the firm. Trade-off theory also says that the firm optimal capital structure is influenced by three essentials i.e. taxes, bankruptcy cost and agency cost. Debt financing results in increased after tax cash flows because interest payments are tax deductible expense and reduces the tax liability of the firm which is the main advantage. So the firms trying to reduce their tax burden will use extra debt financing. The cost related of debt financing is bankruptcy and agency cost. The bankruptcy cost can be separated into direct and indirect bankruptcy cost. When the firm is using extreme debt financing and the level of debt is more than the optimal point then the chances of going in to the financial distress and default rises. This rising chances of getting into financial distress results in shifting of control as the control changes from the shareholders to the bond holders. Likely financial distress outcome is that firm facing the direct bankruptcy cost which comprises administrative cost of bankruptcy. Administrative cost of bankruptcy mostly comprises actual and necessary cost such as cost linked with the sale of asset of debtor. Direct cost includes cost of insolvency for the company as assets are sold at distress prices which are rather less than the current value of assets. This is also said to be force selling. It also includes wages, salaries and commission for services rendered etc.

Shah and Hijazi (2004) said that if the firm is large in size the administrative cost of bankruptcy is not considered as it is very low. But the case is reverse for the smaller firms as direct cost will work as an important and dynamic variable in determining the level of debt. The indirect cost of bankruptcy is linked to the change in investment policies. Due to likely future financial distress firm do not favor investing in research and development and advertisement therefore the level of trust between the firm ability to keep quality and customers decreases. Deficit in trust results in hefty drop of sales share price of the firm is also decreased. Another famous theory that indicates to a different conclusion with regard to the verdict taken on firm's capital structure on corporate financing choice and a strong empirical support is provided is the agency theory or the theory of the firm postulated by Jensen and Meckling in 1976.

Jensen and Meckling (1976) stated that the firm optimal capital structure is a point where there is minimum cost of capital which is strongly determined by the agency cost. All of this started with the philosophy of Principal – agent problem and the conflict of interest. Agency theory certainly has some implications on the firm capital structure. The view of Agency theory is that in firm's capital structure where the agency cost is at minimum there is an optimal debt level. This theory mainly identified the likely conflict of interest which arises between the managers and the shareholders. Managers are working as an agent and manager's share is less than 100 percent in the firm. So manager's most worried effort is to take the wealth away from the bond holders and shift it to the shareholders and for this purpose, managers (agent) invest in risky projects and take more debt. Before there are several problems which have been identified because of principal agent relation and several methods have been proposed to minimize the agency problems. Jensen (1986) Postulated one of the key problems that is availability of free cash flow to the managers. Free cash flow can be defined as the cash flow accessible to the firm after funding all the projects. As discussed earlier managers work as agent to the shareholders who have less than 100 percent stake in business, they try to use the free cash flow sub optimally and objective is to use for their personal benefits and advantages instead increasing the firm's value. The sub optimal usage of free cash flow is an attempt for increasing the firm size so managers can have greater compensation. One resolution for this problem is suggested by Jensen (1986) that this problem can be controlled by increasing the interest of managers in the business and also adjusting their interests with the firm. One other way is to control the availability of free cash flow to the managers is by increasing the debt financing in firms capital structure. Shah and khan (2007) stated that decrease in availability of free cash flow to the managers due to inviting more debt is an advantage of debt financing.

Jensen and Meckling (1976) stated that the strongest way to reduce the agency problem aligning manager's interest and increasing their ownership in the firm and let the managers to use the organizational funds more professionally. Usages of more debt lessen the free cash flow but at the same time increases the odds of firms falling into future financial distress bankruptcy and results in job losses. This increases the stake of the managers and finally can lead to decrease the equity base of firm and increase the stake of the managers. Few other

advantages of debt financing as explained by Harris and Raviv (1990) that managers will not disclose the information on liquidation of the firm. There may be a case that the liquidation will be helpful for the shareholders but not for the managers as they wants stability of their services.

Moreover Shah and khan (2007) stated that managers have the advantage to carry on the approaches of the firm through which they can reduce the risk of their service. This problem leads to the answer in shape of increasing debt financing in the capital structure so the control will be moved towards the bond holders in case of default. The availability of free cash flow to the managers also results in difficulties of overinvestment and underinvestment. Shah and Hijazi (2004) stated that bond holders mostly bear additional risk with no extra reward. This phenomenon happens because if the investment results in great returns the shareholders enjoy the additional reward at the cost of bond holders. While On the other hand the bond holders also share the loss if the investment turned out to be a failure. As the managers are only liable to shareholders they are least worried with increasing the complete value of the firm rather than increasing the value of equity only. So the managers attempt to invest even in risky projects that may have odds of failure in the future. While managers will never favor investing in projects which can be a success in the future but on that point in time results in decreasing value of equity. These terms are acknowledged as the problem of "Overinvestment and underinvestment" respectively.

Stulz (1990) stated that if the firm uses increased debt in its capital structures it will decrease the sum of free cash flow available to the managers, so the cost of overinvestment and underinvestment will also decrease. As when shareholders are uninformed of the investing decisions of the firm, managers attempt to gain and keep the credibility. These managers will over invest if the firm has marginal cash then and if the firm has fewer amounts of cash managers will do underinvestment. The basic of the agency theory presented by Jensen and Meckling (1976) established that the firm has optimal capital structure where the cost of capital is at its minimum. And for reaching to this optimal point there is a trade-off between the agency costs of debt against potential benefits of debt.

2.3 Theoretical framework

This section gives us information on the dependent and independent variables used in our study.

2.3.1 Dependent variable

We are taking firms leverage as a dependent variable.

2.3.2 Independent variables

From the literature review we have identified four independent variables effecting firms leverage.

Tangibility
 Size
 Profitability
 Growth.

3. Methodology

This section provides information regarding sample, the sources of data and the specification of our model. Moreover the measurement technique of our dependent and independent variables, their relationship with leverage from empirical evidences will be discussed and state our hypothesis.

3.1 Sample

This study is focusing on Fuel and Energy Sector of Pakistan. We targeted 18 firms initially but later on 17 Fuel and Energy sector companies have been taken as our sample which is listed in Pakistani stock exchange because of the availability of data. After appropriate screening and filtering we will drop out the firms whose data is incomplete.

Following will be criteria for selecting companies in our sample.

- Firm must belong to the fuel and energy sector.
- Firm must be included in volume of balance sheet analysis published by state bank of Pakistan from the period 2005-2010. Any company which is missing or de-listed will be left out.
- Firms must have complete data regarding the components for measuring variable proxies.

3.2 Data sources

The published data has been taken from "Balance Sheet Analysis of Joint Stock Listed companies "from the period 2005-2010". For analysis purpose following volume of balance sheet analysis will be used.

Table 1 summarizes the dependent and independent variables, there measurement proxy. It also shows the expected relationships and empirical prediction of trade-off and Pecking order theory (POT).

Independent		Expected			
variables Dependent variable	Ргоху	relationship with leverage	Empirical prediction of theory		
Leverage	Total debt/total assets				
Profitability	EBIT/total assets	Negative	Consistent with pecking order theory		
Size	N(log) sales	Positive	Consistent with trade-off theory		
Tangibility	Totalfixed assets/total assets	Positive	Consistent with trade-off theory		
Growth	%age change in total assets	Positive	Consistent with pecking order theory		

Table 1: Proxies and Hypothesis

4. Model of the study

The general form of our model will be

$l=G_{it}+\beta_0 \quad \beta_1 X_{it} + \cdots \cdots$

E the measure of leverage

BIntercept of the equation.

f The change co efficient for X variable.

₭ Independent variables for leverage

i = Number of firms

t= time period

After putting our variable in general form of model the equation will be as follows:

$$LG_{it} = \beta_0 + \beta_1 (TAN_{it}) + \beta_2 (SZ_{it}) + \beta_3 (PROF_{it}) + \beta_4 (GR_{it}) + \mathcal{E}$$

Where

LG = Leverage TAN = Tangibility

SZ = Size

PROF = *Profitability*

GR = Growth

 $\epsilon = Error term.$

5. Data analysis

Initially our sample consisted of all 18 firms of fuel and energy sector. After checking the stability and availability of data for every firm we have left out one firm and now 17 firms of fuel and energy sector are included.

Here i will describe the descriptive statistics for our dependent and independent variable. After that checking if there is a multi-co linearity effect in between our independent variables correlation among them has been studied. And then results are interpreted with the help of constant coefficient model and testing the hypothesis of conventional theories based on empirical prediction. Now firstly we will start with the descriptive statistics.

5.1 Descriptive statistics

Table 2: Descriptive statistics

	Leverage	Profitability	Tangibility	Size	Growth
Mean	0.434237	0.059862	15.27866	0.703180	0.425549
Median	0.490221	0.042168	15.48065	0.730378	0.066721
Maximum	0.868451	0.534481	18.94502	0.983174	33.47415
Minimum	0.006774	-0.139316	8.883086	0.289375	-0.409959
Standard					
deviation	0.250397	0.127277	2.774338	0.146895	3.309091
No of obs	102	102	102	102	102

5.2 Results of correlation among independent variables

Table 3: Results of Correlation among independent variables

	Profitability	Size	Tangibility	Growth	
Profitability	1	0.5097	-0.5109	-0.0482	
Size	0.5097	1	-0.3401	0.0476	
Tangibility	-0.5109	-0.3401	1	0.0793	
Growth	-0.0482	0.0476	0.0793	1	

5.3 Results of pooled regression (Constant coefficient model)

Pooled regression was taken to observe the effect of relationship between our dependent variable (leverage) and independent variables (Profitability, Size, Tangibility, and Growth). Pooled method of regression is also called constant coefficient model. There are Restrictive assumptions about the slope and the intercept in this model. Both slope and intercept are assumed to be constant in constant coefficient model in as single column for analysis. We pooled together the cross sectional and time series data in a single column for analysis. This model aim to investigate what relationship these variables have and if these variables have any significant explanatory power. In simpler words it can be said that it is used to check if there common constant for all the 17 firms of fuel and energy sector. The following table shows the result of model.

5.3.1 Constant Coefficient model output

Table 4: Regression Model Summary

0.344405	
0.309533	
0.0000	
9.876261	
	0.344405 0.309533 0.0000 9.876261

Table 5 Regression Coefficient and their significance

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
CONSTANT	0.177924	0.252426	0.704856	0.4826	
PROFITABILITY	-0.569224	0.236570	-2.406159	0.0181	
SIZE	0.043246	0.012592	3.434403	0.0009	
TANGIBILITY	-0.549576	0.198717	-2.765616	0.0068	
GROWTH	0.002951	0.005744	0.513744	0.6086	
GROWTH	0.002951	0.005744	0.513744	0.6086	

Summary of results (constant coefficient model)

 Table 6: Summary of results (in comparison with theories)

Dependent	Proxy	Expected	Empirical	Observed	Empirical	Statistical
independent		relationship	prediction of	relationship	prediction of	significance
variables			theory		theory	of the
						relationship
Leverage	Total					
	debt/total					
	assets					
Profitability	EBIT/total	Negative	Consistent	Negative	Consistent	Significant
	assets		with pecking		with pecking	
			order theory		order theory	

Size	N log sales	Positive	Consistent	Positive	Consistent	Significant
			with trade-off		with trade-off	
			theory		order theory	
Tangibility	Total fixed	Positive	Consistent	Negative	Consistent	Significant
	assets/total		with trade-off		with pecking	
	assets		theory		order theory	
growth	%age change	Positive	Consistent	Positive	Consistent	Insignificant
	in total assets		with pecking		with pecking	

6. Conclusion and Recommendations

6.1 Conclusion

This research basically analyzed the determinants of economic structure to measure the formal theories presented by well-known finance scholars. Focus has been on the fuel and energy sector of Pakistan particularly as it is the biggest sector and which contributes greatly in the development of the economy. The main purpose of this study was to identify the factors that influence the portion of debt financing. We have selected the whole fuel and energy firms for the purpose of analysis which comprises of 18 listed firms. Finally 17 companies achieved the criterion of being included in the sample with complete availability of data of all the variables for the measurement. The analyses are for the period 2006-2010. Leverage or the portion of assets financed through debt is taken as dependent variable for the study. For measuring debt financing or Leverage the proxy of total debt divided by total assets has been used. To test the hypothesized prediction of the theories (Trade-off theory and Pecking order theory) four independent variables were selected. The selections of variables were on the basis of their significance and strong influence establish in the literature. Furthermore two substitutable theories also explained the relationships of these variables with the dependent variable. Pair wise correlation was also applied to check the Multi co linearity between the independent variables and the results indicated that no problem exists in our study. Four hypotheses were constructed based on the hypothesized prediction of the (TOT) and (POT) to test these theories. Two of the hypothesis regarding size and tangibility were consistent with the (TOT) representing their positive association with debt financing whiles the other two hypotheses were consistent with the (POT) regarding the profitability and Growth of the company indicating their negative association with debt financing.

For the purpose of analysis we have applied pooled regression, as the sample consists of only companies from the fuel and energy sector with no heterogeneity across the cross sections. Profitability was measured as Return on assets and earnings before interest and taxes were used in nominator. Regression results showed that profitability has a negative association with the debt financing with a coefficient of -0.569224 confirming the hypothesized prediction of the (POT) that companies which are good profitable position will use their retained earnings for new project funding. It rejects the TOT philosophy that firms that have higher amount of profits will be more interested in availing tax benefits by taking more debt. This relationship was also statistically significant. Size was measured by taking LN (Sales). After applying the model results revealed the positive coefficient of 0.043246for size indicating that large firms will use more debt in their capital structure. The positive sign also confirms the hypothesized prediction of the (POT) which states that large companies will borrow more because they are well diversified and does not feared of the bankruptcy cost and this result was also statistically significant. On the other hand it rejects the prediction of the (POT) which states that the ownership in large firms is diversified so there will no problem of the asymmetric information and large company can issue more equity to construct its capital structure as the fear of undervaluation of new equity will be at minimum.

Tangibility has negative association with the leverage obtaining a coefficient of -0.549576. This relationship was statistically significant but we reject the hypothesis based on (TOT) that firms will have more portion of debt financing in their capital structure with large portion of fixed assets as it reduces the agency cost serving as collateral for the loan. At the same time results accept the hypothesized prediction of (POT). Finally growth obtained a coefficient of 0.002951 which shows that growing firm has a positive association with debt financing. Results confirmed to the hypothesized prediction of (POT) and hypothesis four which states that firms that are growing will borrow more as their retained earnings will not be sufficient. Positive coefficient reject the prediction of (TOT) that agency cost will be higher for growing companies due to the nature of investments in riskier projects thus they will be charged with high cost of debt leading to less debt financing. As the relationship between growth and leverage is not statistically reliable thus we reject the hypothesized prediction of the (TOT). The last hypotheses regarding growth confirmed to the (POT) but it was found statistically insignificant. So in the end we can conclude that (POT) presented by Myers and Majluf (1984) has more empirical support regarding their relationship with debt financing when applied to the fuel and energy sector of Pakistan for the period 2006-2010.

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