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GROWTH OPTIONS EFFECT ON LEVERAGE: EVIDENCE FROM PAKISTAN

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ABSTRACT: *This paper examines the impact of firm's Growth Options (i.e. Market-to-book assets ratio and inverse exponential form) on Corporate Leverage. Pakistan is an emerging market where growth options as investment decisions need to be considered with variation in optimal leverage target. Using Panel data methodology, Generalized Method of Moments (GMM) Equations would be applied on a sample of all non-financial firms listed on the Karachi Stock Exchange of Pakistan for the period of 2004 to 2014. Results revealed a negative as well as highly convex (non-linear) relation between growth options and leverage. Firms with more growth options have negative and highly convex relationship with leverage. Moreover, this study also demonstrates that the effect of growth options on leverage is stronger with a nonlinear transformed MBA ratio rather than the linear MBA ratio.*

Keywords: Growth Opportunities, Optimal Leverage, Dividend Payouts, Ownership Concentration

INTRODUCTION

Corporate financial decisions, e.g. leverage policies and cash dividends payout policy's importance have been at the heart of academic research in recent years. The optimal usage and implementation of these financial policies lead the firm to develop mechanisms through which firm value and shareholder wealth could be maximized. At first [1] contributed in this field by illustrating irrelevance prepositions between firm financial decision policies and firm value in perfect capital markets. However, when imperfections are introduced such as asymmetric information, agency costs, transaction costs and taxes, wide range of researchers began to derive an optimal range of financial policies to be implemented where agency costs could be reduced and firm value could be maximized.

Within the framework of agency theory, debt and dividends can play a dual role. First, they alleviate the problem of over-investment when firm lacks growth opportunities via behaving as control mechanisms to reduce moral hazard and the conflicts of interest among stakeholders [2]. Secondly, debt plays a negative role in the presence of growth opportunities because high Debt to Assets ratio leads to under-investment due to conflict between the bond and shareholders [3]. Finally, ownership concentration initially improves the value of the firms due to alignment of interests, but after a certain threshold in firms with high growth opportunities, the risk increases that large shareholders would expropriate wealth at the expense of minority shareholders due to high control [4]. Therefore, it is worthwhile to find an optimal combination of financial policies and ownership concentration with value maximization goal when growth options available to the firm.

This study used a sample of 164 non-financial Pakistan firms listed from 2004-2014 on Karachi Stock Exchange to examine how growth options, dividend payout and ownership structure affect corporate leverage. The contribution of this paper is twofold; first, there is similar research available for countries with developed capital markets, the evidence from underdeveloped markets is still scarce and null in Pakistan. Secondly, this study will add to the literature by finding, why low explanatory power results are always depicted between leverage and growth options. Empirical studies indicate that this variation is due to mis-measurement of growth options. Studies show that how non- linear inverse transformation of MBA not only increases full model explanatory power results with high adjusted R-square but also the highest explanatory power of individual EMBA. That is the inverse transformation of MBA ratio.

Remaining paper is structured as follows: Second part provides a framework of theoretical background and evidence based on relationship is between firm financial decisions and firm value with respect to availability of growth opportunities. Third part documents Research design and methodology, while the fourth part portraits empirical findings. The last part consist of conclusions and recommendations

Literature Review:

Leverage and Growth opportunities:

Growth options effect on corporate debt financing had played an important role in structuring firm financial strategies and investment decisions at both firm and country level in developed and in emerging countries' markets. Corporate debt plays a dual role in firm value conditional to availability of growth options which can be explained with the Trade off Theory of capital structure. The tradeoff theory provides with an optimal leverage target of each firm and the chance to avail the growth options effect lies between the tax benefits of debt to its interest deductibility ([5]; [6]; [7]).The underinvestment view given by [8] points out the negative effect of corporate debt on the firm value as it would motivate the managers to forgo profitable investment projects. Due to bondholder's priority over firm cash flows relative to shareholders, managers could forgo positive NPV projects if projects earnings go to creditors. The intuition behind is that as the debt issuers have priority over claims, managers do not find it worthwhile to take investment projects whose cash flows would not go to the owners of the company but to the creditors of the company [9]. This phenomenon is known as debt overhang or underinvestment.

The case of overinvestment works in the absence of growth options, where agency costs of free cash flow theory take place [10]. This theory focuses on the negative implication of free cash flow available in the hands of managers which for their personal interest could invest in negative NPV projects to increase manager earnings. Therefore, the issuance of debt not only discipline inefficient managers, but also protects the

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value of the firm by limiting their access to excess of free cash flow. This indicates that on one hand where growth options increases debt is not taken due to increase in underinvestment costs and the increase in growth options would reduce the tax advantage of interest deductibility. Conversely, if the debt is not taken, there would be an increase in agency costs of free cash flow with increase in growth options. The tradeoff depicts a negative relation between growth options and optimal leverage.

Growth Options:

Previous studies indicate, how the measurements of growth options have always been controversial. Different researchers used different proxy measures. However, whenever a proxy is used there is always a chance of mis-measurement where the explanatory power of that variable is not strong. The most common proxy used for growth options is Market to Book assets ratio. In static trade-off theory, an empirical study indicates that how the stand alone explanatory power of MB ratio is low and negative. However, in dynamic trade-off theory, empirical studies captured the speed of adjustment of leverage to return to its optimal leverage target. When MB ratio is used to measure optimal leverage, the speed of adjustment is low to explain the variation in the firm's leverage. This indicates that an important stable factor is missing from the traditional leverage regression models. This gives out a gap where researchers developed techniques to measure the relationship between optimal leverage and growth option with the high explanatory power model. [11] explain that the missing stable factor relates to the growth options. He further classified that linearly adding MB ratio to leverage regression leads to model mis-specification. Utilizing US non-financial firms from 1971-2010, they found a non-linear inverse transformation of MB ratio not only increase the R^2 value but also the stand alone explanatory power of optimal leverage. Further [12] demonstrates a negative non-linear relation between growth options and optimal leverage indicating the relationship between growth options and leverage is negative and highly convex. [13] provides with empirical evidence that how the inverse transformation of MB ratio gives high explanatory power model with increased adjusted R-square. He illustrates the relation is negative and highly convex. He provides with empirical evidence that by taking a nonlinear form of MB ratio explains the variation between optimal leverage and growth options where the adjustment speed is high.

Ownership Concentration and Financial Constraints:

When minority shareholders' rights are not fully protected due to poor corporate governance structure, then the ownership concentration in the hands of majority shareholders shields minority shareholders' interests [14]. This view is also supported by [15] who demonstrate how rise in proportion of ownership in the hands of managers could converge the interest of managers and shareholders which ultimately increases the value if the firm. This provides us with the view that the initial increase in ownership concentration has a positive effect on the value of the firm due to alignment of interest [16]. However, there exists a certain optimum level where the rise of ownership concentration and alignment of interest crosses that optimal level and the entrenchment theory takes place. When large shareholders have a high enough percentage of shares, they can entrench themselves and extract private benefits, to the detriment of small shareholders [4]. Similarly, the firms which pay more dividends and are large in size are not very much affected with financial constraints.

Existing literature on this paper is motivated by the lack of empirical evidence on the growth options effect on leverage in emerging economies. This paper answers the question, how with poor ownership structure and high financial constraints in the emerging market of Pakistan, where entrenchment of power is high, the relation between leverage and growth options still negative and convex.

At first the paper analyzes static trade of relation between growth options and leverage effect in traditional leverage regression models. This paper analyzes Pakistan non-financial firms from 2004 till 2011 from KSE index. Pooled OLS and least square fixed effect model is applied in traditional regression models. In dynamic regression model generalized method of moments is applied. These tests are captured to illustrate which tests the results the model with highest explanatory power. Generalized Method of Moments gives solution to the autocorrelation problem where endogenous variables are taken. GMM gives highest explanatory power results of relation between optimal leverage and growth options in the dynamic regression analysis.

Data Sample

The data source is listed companies on Karachi Stock Exchange (KSE) as well as Balance sheet analysis provided by the State Bank of Pakistan. In data sample of this study, 164 listed companies of Pakistan on KSE with study window from 2004 to 2014 is taken. The selection criterion for our sample study is based on firms with the highest market capitalization. Total 585 companies are listed on KSE. Amongst them 419 are manufacturing firms, 142 are financial firms and 27 remaining are service industries. The financial sector is not included in our sample study because at first these sectors require different accounting and financial treatment. Secondly, same statistical estimations and techniques could not be applied for both financial and manufacturing sector firms. We also do not include service sectors due to its small sample size. Our final sample includes total 164 listed companies from total sample set of 419 listed manufacturing companies of Pakistan. This represents a total of 42 per cent representation of the whole population of listed non-financial manufacturing companies of Pakistan.Unlike these cross-sectional studies, we combined cross-sectional information with time series to build a panel data with 1320 firm-year observations, which provides more efficient estimations. The companies in the sample are medium-large firms compared with the average Pakistan firm size. Nonetheless, log of firm size would be taken as a control variable to control for heterogeneity. (Appendix A)

Variables Measure and Definition:

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Leverage ratio: Corporate leverage is defined as the book value of total leverage divided by book value of total assets Following [13], we expect a negative relation of total corporate leverage with growth opportunities with MBA ratio. However the positive relation would exist with eMBA ratio as it is its inverse transformation. In control variables profitability (EBIT/TA), size (log of TA), asset tangibility (PPE/TA) and median industry leverage measured as median end of the year value of book leverage are taken.

Measures of Growth Options: Key aspect of this study is identifying and measuring growth opportunities, given the close relation between firm value and growth opportunities. [17] evaluated performance of firm's investment opportunity set with comparison between several proxy variables available to measure investment opportunities. They measured market to book assets ratio as market value divided by book value of assets, where market value is measured as market value plus corporate debt. They demonstrate, MBA ratio to have highest information content with respect to investment opportunities compared to MBE and PER ratio. We define MBA as the ratio of firm's market value to its book value. Market value of the firm is defined as the sum of equity market value plus the debt book value. The rationale is that the higher the MBA ratio, lower the value due to the assets in place and, in turn, the higher the value due to growth opportunities. A key aspect of this study is that MBA ratio, which captures linear form do not depict results with highest explanatory power. Theory suggests a particular part is missing, which relates to the measurement proxy of growth opportunities. This suggests an inverse transformation of MBA would give high explanatory power results. Inverse transformation of MBA provides non-linearity and in non-linear form the model becomes more powerful with high explanatory power. Inverse transformation of the MBA is taken as epower –MBA.

Ownership concentration and Financial Constraints:

Concentration Ratios represent the percentage proportion of shares held by shareholders. This is the most widely used measures with highest predicting power to measure ownership control [18]. Different concentration ratio limits are used by different researchers as reviewed by literature ([19]; [10]). Most commonly in these C1, C3, C5 and C20 limits are used to represent percentage of shares held by top majority shareholders, by top one, three, five or 20 shareholders. We define our concentration ratio limit as C5 that is the percentage proportion of shares held by top 5 majority shareholders. Firms that do not pay dividends as well with small size are not much familiar to investors. Therefore, big size firms with dividend payments are not much affected with financial constraints. To cover up these we take dividend payout ratio, dividend payout dummy and asset size as to capture financial constraints faced by companies. We define dividend payout ratio as total dividends paid to total assets. We also took dividends dummy to capture financial constraints effect on firms which pay or do not pay dividends.

Table1: Variables used and their definition:

Variables	Sign	Definition	Formula
Corporate Leverage	LEV	Total LEV/Total Assets (Book Value)	TL/(TA)
Dividend Payouts	DP/TA	Dividends/Total assets	DP/TA
Ownership Concentration	CONC	Proportion of Top Five Shareholders	C5
Size	SIZE	Natural Logarithm of Total Assets	Log TA
Return on Assets	ROA	Earnings before Interest and Tax/Total assets	EBIT/TA
Median Industry Leveage	MI-Lev	Median end of year value of book leverage	
Market to Book Assets Ratio	MBA	Market Value /Book value of Asset,	(MVE+D)/ BVA
iIverse transformation market to book assets ratio	EMBA	e power – (Market Value /Book value of Asset)	e^{-MBA}

Static regressionanalysis: The growth option effect on leverage:

1. Pooled OLS and Fixed Effect model:

Here we investigate the relation between optimal leverage and growth options that is either this relation is negative and highly convex. We run the model two times one with linear MBA and other with its inverse transformations. We estimate the following model:

$$LEVit = \alpha o + \alpha i + \beta 1\ GOi,t\text{-}1 + \beta s \sum s\ Xi,t\text{-}1 + \varepsilon it$$

$$LEVit = \alpha o + \alpha i + \beta 1\ GOi,t\text{-}1 + \beta 2\ SIZEi,t\text{-}1 + \beta 3\ ROAi,t\text{-}1 + \beta 4 TANGi,t\text{-}1 + \varepsilon it$$

Where, left is a leverage ratio of the firm I in year t , other variables are taken at 1st lag difference to capture past market behavior on optimal leverage, αi is firm specific fixed effect, GOi,t-1 are proxy's for firm growth options (with MBA ratio as well as with its inverse transformation at first difference lag). The vector Xi,t-1 is additional leverage determinants important to control their influence.

The panel data methodology allows us to control for any constant and unobservable heterogeneity [20] as well as fixed effects, namely, the specific features of each firm that remain fixed over time. Random error term εit, controls for both errors in the measurement of the variables and the omission of relevant explanatory variables.

Summary Statistics:

At first a glance on descriptive statistics is presented. Total number of observations for individual variables is 1320. Amongst them size and profitability shows very large variation in minimum and maximum values. Table 2 represents a correlation matrix. No high correlation is found, however a little high correlation is found in ownership concentration with inverse MBA transformation and dividend payouts.

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Table 1. Descriptive statistics

	N	Min	Max	Mean	Std. Dev
LEV	1312	0	0.982	0.284	0.228
MBA	1320	0.14	10.93	1.325	0.941
EMBA	1320	0	0.867	0.328	0.144
DIV	1320	-0.041	1.685	0.295	0.686
ROA	1320	-7.860	99.85	0.186	0.2.765
SIZE	1320	10.35	19.39	15.044	1.585
TANG	1320				

Note: Table 1 represents descriptive statistics. Leverage is dependent variable. Market to book assets ratio, inverse transformation market to book asset ratio are growth options independent variables. Return on assets, asset tangibility and Size are control variables.

Table 4 provides traditional static regression results of the relationship between growth options and optimal leverage. Four models are run at first with linear MBA ratio in pooled ordinary least square regression and second with fixed effect models. Third and fourth model is run with eMBA ratio, which is the inverse transformation of MBA ratio. At first we see there is negative and significant relationship -0.07 and -0.33 between optimal leverage and growth option with MBA ratio. However, in third and fourth model the relation is positive because it is itself an inverse transformation whereas significance level is low. Here our analysis is not proved that with eMBA ratio the model gives highest explanatory power because it is even below MBA ratio results. This is because pooled ordinary regression does not take fixed effect into account which could bias the results. However, even with fixed effect results adjusted R square is not much high

Table 2: Correlation Matrix

	TDTA	MBA	EMBA	ROA	DIV	CONC	SIZE
TDTA	1						
MBA	-0.0314	1					
EMBA	0.0978	-1	1				
ROA	-0.0321	0.0112	-0.0116	1			
DIV	-0.0369	0.4258	-0.3996	0.0129	1		
CONC	-0.1043	0.1760	-0.1805	0.0189	0.1717	1	
SIZE	-0.0063	0.0452	-0.1120	-0.0174	0.1158	0.1447	1

in comparison this is due to these models do not cover endogenous variables. The generalized methods of moments cover this problem where autocorrelation is too much high between variables. In control variables profitability and asset tangibility depict the negative relation with optimal leverage.

Table 4 illustrates the results with interaction terms of ownership concentration and dividend payouts. Here the generalized method of moments is applied to capture autocorrelation and endogenity problem. In the emerging markets of Pakistan ownership concentration gives negative impact illustrating that with presence of ownership concentration, this relation becomes more negative and convex as depicted above. However, dividend payouts show positive results indicating firms where growth options are high, pay out more dividends.

RESULTS DISCUSSION:

This research analyzed the dual effect of firm financial decisions on firm's value with presence of good investment opportunities. Market to book Assets Ratio is utilized as firm valuation ratio representing proxy of growth opportunities. MBA ratio depicts to be the most popular firm valuation ratio which takes firm asset utilization efficiency into accounts to increase firm value with increased investment opportunities. Growth options with MBA ratio demonstrate proposed result that it has significant negative relation with corporate leverage. This is consistent to ([21]; [22]; [19]; [23] [24]; [9]). These all studies justified the negative effect of leverage on firm value with presence of growth options as high debt level increases underinvestment costs due to presence of interest conflicts between managers and shareholders therefore reduces the value of the firm.([25]; [26]; [3]). However with EMBA ratio it reveals that this relation is negative and highly convex [11]. It also demonstrate that inverse transformation of MBA ratio depicts high explanatory power of model explaining the variation in optimal leverage and growth options effect.

With increase in growth optionsdividends depict positive relation because paying out dividends signal firm profitability and high growth options available to firm and therefore increase firm value ([27]; [28]). Dividends depict positive relation because paying out dividends acts as mechanism to limit access to free cash flow and reduce overinvestment process ([29]; [10]). We proposed hypothesis of ownership concentration to have negative effect on corporate leverage with increase in growth options. ([15]; [30]).The inverse non-linear effect took place Pakistan because in Pakistan firms with poor investment growth.

Table 3: Static Pooled OLS and fixed effect:

Variable	Pooled OLS MBA	Fixed Effect MBA	Pooled OLS EMBA	Fixed Effect EMBA
GO	-0.0736** 0.000	-0.033** 0.054	0.004 0.488	-0.008 0.179
TANG	-0.061** 0.060	-0.046 0.640	-0.055 0.580	-0.061 0.530
ROA	-0.278*** 0.000	-0.140*** 0.000	-0.328*** 0.000	-0.161*** 0.000
SIZE	0.133*** 0.006	0.003 0.994	0.124*** 0.012	-0.002 0.968
No of obs.	1320	1320	1320	1320
R^2	0.1303	0.089	0.097	0.05
Waldchi2	131.78	9.78	110.61	9.13

options, concentrated owners investments are diversified. Therefore for their personal interest they try to extract

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corporate resources if they do not expect high investment returns from firms with poor investment opportunities and try to gain from firms with positive investment projects available [31]. Therefore, concentrated owners hedge their investment returns from poor and high investment opportunities available.

Size depicts asset utilization of firms in good investment projects. Size depicts highly significant positive values in presence and highly significant negative values in absence of growth opportunities. Size is negative due to the fact that mostly small sized firms have less availability of presence of good investment projects or either is too much costly and expensive. Return on assets depicts profitability generated by firm with efficient utilization of firm assets. The results demonstrate that with presence of high growth options, high profitability is present. Firms depict low negative return to assets ratio in absence case as low profitability generated by firms with poor growth options available[32].

Table 4: Ownership Concentration and Financial Constraints

Variables	OC, EMBA	DIV, EMBA
GO	-0.015*	0.005
	0.185	0.860
OC	-0.091***	
	0.005	
OC*EMBA	-0.0014	
	0.256	
DIV		0.026
		0.731
DIV*EMBA		-0.007
		0.778
TANG	-0.061*	-0.046
		0.640
	0.060	
ROA	-0.026	-0.025
	0.377	0.393
SIZE	-0.054**	-0.072**
	0.069	0.072
Waldchi2	770	761

CONCLUSION AND IMPLICATIONS:

This paper presents the optimal financial policies to be generated and implemented in a way where agency costs of debt could be reduced and firm value could be maximized. A key factor in this process is availability of growth options to the firm. The most important variation is in measurement of growth options where proxy is used. The paper provide evidence that applying inverse transformation of MBA reveal highest explanatory power of model results. The interrelation of these variables indicate firm financial decisions i.e. corporate debt, cash payouts and ownership concentration to be the most significant determinant of value of the firm. This paper has important implications for majority shareholders, debt-holders, and investors. Firm majority shareholders are concerned with maximization of shareholders wealth. This article would benefit them to analyze the situations and alter the financial policies built by management where with use of more control and power agency costs could be reduced and firm wealth could be maximized. Debt-holders could act as intermediary and could help reduce the problem of adverse selection of investment projects by the management with their insight on knowledge about company debt policy and risk to be employed.Investors could trade off among their risk and return investment projects and portfolios to design and accomplish an idea of return of different firms based on their availability and used a proportion of good and bad investment opportunities sets.

Table 5: (Appendix1) List of Sector wise Sample Detail:

Sr. No	Sector Title	Total No of Companies	No of Selected Companies	per cent Sector Population
1	Personal Goods (Textile)	181	36	19.89
2	Food Producers	54	31	57.40
3	Chemicals	33	20	60.60
4	Construction and Materials (Cement)	37	16	43.24
5	Oil and Gas	12	12	100.00
6	Automobile and Parts	16	12	75.00
7	Engineering	11	7	63.64
8	Pharmaceuticals and Bio Tech	9	6	66.67
9	Power and Electricity	16	6	37.50
10	General Industrials	13	3	23.08
11	Household Goods	13	3	23.08
12	Beverages	3	2	66.67
13	Forestry (Paper and Board)	4	2	50.00
14	Electronics and Electrical Goods	3	2	66.67
15	Fixed line Telecommunications	5	2	40.00
16	Gas and Water	2	2	100.00
17	Tobacco	3	1	66.67
18	Leisure Goods	1	1	100.00
Total		**416**	**164**	**39.42**

REFERENCES:

1. Miller, M. H. and Modigliani, F., Dividend Policy, Growth and the Valuation of Shares, Journal of Business, 34(4), 411–552 (1961).
2. Bougatef, K., &Chichti, J., Timing of Debt Issues: Evidence from a Panel of Tunisian and French Firms, Economics Bulletin, 31(2), 1188-1197 (2011).

4. Li, H., & Cui, L., Empirical Study of Capital Structure on Agency Costs in Chinese listed Firms, Nature and Science, 1(1), 53-95 (2003).
5. Srivastava, A., Ownership Structure and Corporate Performance: Evidence from India, International Journal of Humanities and Social Science, 1(1), 23-29 (2011).
6. Abor, J., &Biekpe, N., Corporate Governance, Ownership Structure and Performance of SMEs in Ghana: Implications for Financing Opportunities, Corporate Governance, 7(3), 288-300 (2007).
7. Erol, T., Strategic Debt with Diverse Maturity in Developing Countries: Industry-level Evidence from Turkish Manufacturing, Emerging Markets Finance and Trade, Birmingham, 40(5), 5-24 (2004).
8. Kaminsky, G. L., & Reinhart, C. M., Financial Markets in Times of Stress, Journal of Development Economics, 69(2), 451-470 (2002).
9. Myers, S. C., Determinants of Corporate Borrowing, Journal of Financial Economics, 5(2), 147–75 (1977).
10. McConnell, J. J. and Servaes, H., Equity Ownership and the Two Faces of Debt, Journal of Financial Economics, 39, 131–57 (1995).
11. Iturriaga, F. J. L., & Crisóstomo, V. L., Do Leverage, Dividend Payout, and Ownership Concentration Influence Firms' Value Creation? An Analysis of Brazilian Firms, Emerging Markets Finance and Trade, 46(3), 80-94 (2010).
12. Ogden, J. P., & Wu, S., Reassessing the effect of growth options on leverage. Journal of Corporate Finance, 23, 182-195(2013).
13. Barclay, M. J., E. Morellec, and C. W. Smith., "On the Debt Capacity of Growth Options," Journal of Business 79, 37–59(2006).
14. Lin, Q. Growth options effect on leverage: Evidence from China.Pacific-Basin Finance Journal, 34, 152-168(2015).
15. Miguel, A. d., Pindado, J. & Torre, C. d. l., Ownership Structure and Firm Value: New Evidence from Spain, Strategic Management Journal, 25, 1199-1207 (2004).
16. Dyck, A., &Zingales, L., Private Benefits of Control: An International Comparison, The Journal of Finance, 59(2), 537-600 (2004).
17. Morck, R., Shleifer, A., &Vishny, R. W., Management Ownership and Market Valuation: An Empirical Analysis, Journal of Financial Economics, 20, 293-315 (1998).
18. Adam, T., & Goyal, V. K.,The Investment Opportunity Set and its Proxy Variables, Journal of Financial Research, 31(1), 41-63 (2008).
19. Soboleva, V., The Role of Ownership Concentration Measures in Exploring the Ownership - Performance Relationship. , 1-21(2009).
20. Alonso, P. D. A., Iturriaga, F. J. L., &Sanz, J. A. R., Financial Decisions and Growth Opportunities: a Spanish Firm's Panel Data Analysis, Applied Financial Economics, 15(6), 391-407 (2005).
21. Arellano, M., Panel Data Econometrics, Oxford University Press (2001).
22. Al Mutairi, M.,Hasan, H., &Risik, E., The Impact of Corporate Financing Decision on Corporate Performance in the Absence of Taxes: Panel data from Kuwait Stock Market, In World Finance Conference, June (2011).
23. De Jong, A., & Van Dijk, R., Determinants of Leverage and Agency Problems: A Regression Approach with Survey Data, The European Journal of Finance, 13(6), 565-593 (2007).
24. Singh, M & Faircloth, S., The Impact of Corporate Debt on Long Term Investment and Firm Performance, Applied Economics, 37, 875-83 (2005).
25. Childs, P. D., Mauer, D. C., &Ott, S. H., Interactions of Corporate Financing and Investment Decisions: The Effects of Agency Conflicts, Journal of financial economics, 76(3), 667-690 (2005).
26. D'Mello, R., & Miranda, M., Long-term Debt and Overinvestment Agency Problem, Journal of Banking & Finance, 34(2), 324-335 (2010).
27. Zhang, H., & Li, S., The Impact of Capital Structure on Agency Costs: Evidence from UK Public Companies. In Proceedings of the 16th Annual Conference on Pacific Basin Finance Economics Accounting Management Conference, 1-18 (2008).
28. Ho, H., Dividend Policies in Australia and Japan, International Advances in Economic Research, 9(2), 91-100 (2003).
29. DeAngelo, H., DeAngelo, L., & Skinner, D. J., Special dividends and the Evolution of Dividend Signaling, Journal of Financial Economics, 57(3), 309-354 (2000).
30. Carvalhal da Silva, A., &Subrahmanyam, A., Dual-class Premium, Corporate Governance, and the Mandatory Bid Rule: Evidence from the Brazilian Stock Market, Journal of Corporate Finance, 13(1), 1-24 (2007).
31. Gürsoy, G., &Aydoğan, K., Equity Ownership Structure, Risk taking, and Performance: An Empirical Investigation in Turkish Listed Companies, Emerging Markets Finance & Trade, 28(1), 6-25 (2002).
32. Demsetz, H., Villalonga, B., Ownership Structure and Corporate Performance, Journal of Corporate Finance 7, 209–233 (2001).
33. Guedes, J., &Opler, T., The Determinants of the Maturity of Corporate Debt Issues, The Journal of Finance, 51(5), 1809-1833 (1996).