

Cross Industry Capital Structure and Firm Characteristics in Pakistan

¹Samar Waqar Mufti and ²Shehla Amjad

¹Finance Department, COMSATS Institute of Information Technology, Abbottabad, Pakistan

²Department of Management Sciences,
COMSATS Institute of Information Technology, Abbottabad, Pakistan

Abstract: This study attempts to investigate the differences among capital structures in different industrial sectors of Pakistan namely food (sugar), chemicals, materials and construction (cement) and textile industry. The study also analyzes characteristics of the firms included in the industries. The study is based on the secondary data collected from the annual financial reports of the companies for period 2012-2013. The data was analyzed by different statistical tools including descriptive statistics, correlation analysis and regression analysis. The results show that there are differences among the measures of indebtedness and capital structure across the four industries selected for the study. The long-term capital structure shows a positive relation with the size and asset structure of the firm while short-term debt financing has no relation with the growth of the firms. Overall, it can be concluded that significant differences exist among the capital structures of the four industrial sectors selected for the study.

Key words: Cross Industry • Capital Structure • Firm Characteristics • Pakistan

INTRODUCTION

The most important factor that has a prominent impact on the financial operations of a firm is the choice of the capital structure. Many researchers have conducted studies and formulated theories for the firms to make use of the mix of the debt and equity in the most profitable way that not only maximizes the stockholders wealth but also the value of the firms and its overall performance. The decisions regarding the capital structure of a firm have a considerable influence at both the micro and macro-level.

There are a number of theories that describe the link of capital structure with the performance of a firm, including the trade-off theory, the pecking order theory, the market timing theory, signalling theory etc. In this study four industrial sectors of Pakistan would be taken into consideration including food (sugar) sector, construction and materials (cement) industrial sector, chemical sector and textile sector. Every industrial sector consists of some companies and this study is designed to find out the differences in the capital structures among the industrial sectors while keeping the characteristics of the firms in view.

Pakistan is a developing economy. It has a very small under-developed debt market so firms are mostly dependent on the bank debt to finance their operations and investment activities. Pakistan has different and unique setting of institutions having an impact on the decisions regarding financing of firms. Particularly from the view point of firm's financing decision. The institutional setting consists of tax laws, bond market/fixed income market, inflation, bankruptcy cost and economic conditions.

The literature regarding the capital structure is limited in Pakistan as compared to the developed countries where plenty of research is conducted in this area. This study is designed to investigate the differences among capital structures in different industrial sectors of Pakistan.

The objectives of the present study are:

- To investigate the differences among capital structures across different industrial sectors in Pakistan.
- To analyze the characteristics of firms such as growth and size, liquidity asset structure, profitability and asset tangibility etc across different industrial sectors in Pakistan.

Literature Review: The capital structure is basically the mix of a firm's financial liabilities. The financial capital being a very crucial resource for all firms gives the right to the suppliers of finance to exercise control over firms. Capital structure of a firm can be defined as "the composition or make up of its capitalization" (Gerestenberg, 1946) [1]. Capital structure is essentially concerned with the decision of the firm about the type of funds that it can raise. There are two prominent types of funds which include borrowed funds and the equity funds.

Modigliani (1958) [2] and Miller Theorem (1958) [3] theorem laid the foundation of the modern corporate finance. The theorem presented by Modigliani and Miller (1958) suggests capital structure is irrelevant to valuation of the firm. Myers (1984) who got inspiration from the literature provided by the book of Donaldson (1961) formulated the pecking order theory [4]. The pecking order theory ranks the retained earnings first while financing a firm, then debt and then equity. Trade off theory entails the concept of choosing an optimal capital structure by balancing the cost of financial distress (Kraus and Litzenberger, 1973) [5] and agency costs (Jensen and Meckling, 1976) [6]. Baker and Wurgler (2002) [7] formulated market timing theory of capital structure. This theory postulates that the firms manage their equity issues by managing time. The timing is managed in a way that when the stocks of the firm are perceived to be overvalued, they issue new stocks to be floated in the market. The signalling theory's concept was first brought forward analyzed for the job and product markets by Akerlof (1970) [8]. It was further analyzed and developed into signal equilibrium theory by Spence (1973) [9], which suggest that a good firm can differentiate itself from a bad firm by signalling about its credible quality in the market.

Harris and Raviv (1991) [10] sum up their study as leverage is increased with fixed assets, investment opportunities and the size of the firm is decreased with possibility of bankruptcy, profitability and individuality/uniqueness of the product. Yet, the relationship between the firm characteristics and capital structure is not constant. The experimental results fluctuate and sometimes oppose in many studies. Furthermore, comparisons of capital structure across countries reveal that institutional differences may have an impact on the relation between leverage and firm characteristics (Niu, 2008) [11].

Nguyen, 2014 [12] as per the findings of his study concludes that there is a confirmed relationship of capital structure with the liquidity, size of the firm and debt ratio. To begin with, there exists a positive relationship between the debt ratio and the size of the firm. The logic that justifies this positive relationship is that bigger firms are more capable of borrowing and have a well established good will that encourages them employ a higher debt. The findings of a study conducted on Malaysian companies by Suhaila and Mahmood (2008) [13] suggest that there exists a negative link between the liquidity and the debt ratio of a company. The liquidity of a firm is calculated by the quick ratio, showing how capable the firm is to handle its short-term liabilities.

Talking about the firms with low liquidity, they are more likely to choose debt financing option for financing their activities. Firms that maintain high interest coverage ratio are believed to use lower proportion of debt and this shows the capability of the companies to earn high. Therefore, negative relationship implies that companies possibly utilize these earnings to fund their operations and employ as lower debt in their capital structure as possible. So, it shows that the companies are following the pattern of pecking order financing. It is found that there is an unimportant negative relation between capital structure and growth of the firm, presented by the annual earning changes (Suhaila and Mahmood, 2008) [13].

Firm performance measures include liquidity ratios, which are financial ratios used to evaluate whether a firm is capable enough to pay the bills within time or not. To measure liquidity, current ratio, current liabilities, quick ratio etc are used. To measure growth of a firm, the PE ratio, previous net earnings' growth, net earnings' growth and previous asset growth ratios will be used. For analyzing the size of the company natural log of market capitalization will be calculated. For analyzing the asset tangibility characteristic of the firm its total assets must be calculated and for the purpose of analyzing the profitability, there is a profitability measure that calculates that how much capable is a company to pay its taxes from profit before taxes.

Omran and Pointon, 2009 [14] state that for dealing with income as well as capital, there will be devised four ways to measure indebtedness which are:

- Financial leverage = long-term debt and current liabilities/equity
- Long-term capital structure = long-term debt /equity

- Short-term debt financing ratio = short-term debt/(long-term debt + equity)
- Interest ratio = interest/net profit before interest and tax

Methodology

Data Source: The data is collected from the annual financial reports for 2012-2013 of the companies taken from the four industrial sectors listed on Karachi Stock Exchange (KSE) which are selected on the basis of data availability, the four sectors are:

- Food (Sugar)
- Textile
- Construction and Materials (Cement)
- Chemicals

The data taken is such that a total sample of 100 companies is selected from the above mentioned 4 sectors, 20 companies from food (sugar) industry, 20 companies from the chemical industry, 30 industries from the construction and materials (cement) industry and 30 companies from the textile industry making a sample of 100 companies for further analysis to be conducted. The data is analyzed by using three statistical tools which are:

- Descriptive Statistics
- Correlations
- Regression Analysis

Variables of the Study

Independent Variables:

- Current Ratio
- Current Liabilities
- Quick Ratio
- PE Ratio
- Previous Net Earnings' Growth
- Previous Asset Growth
- Natural Log of Market Capitalization
- Total Assets
- Tax to Profit before Tax

Dependent Variables:

- Financial Leverage
- Long-Term Capital Structure
- Short-Term Debt Financing Ratio
- Interest Ratio

Hypotheses: The following relationships are expected to exist between the capital structure and firm performance measures:

- H1-There are differences among the determinant factors across four measures of indebtedness.
- H2-There is a positive association of liquidity with each measure of indebtedness.
- H3-There is a positive relation between long-term capital structure and total asset structure.
- H4-There is a positive association between size and long-term capital structure.
- H5- There is a positive relation between short-term debt with growth (in earnings/or assets).
- H6-There are significant differences among capital structures across industries.

Data Analysis: Prominent differences exist across debt measures in the selected four industrial sectors of Pakistan (Table 1). The material and construction (cement) sector is highly leveraged. The materials and construction (cement) sector of Pakistan is using a higher amount of borrowed money. In 2012-2013, the cement industry became the most profitable industry of Pakistan. Though higher leverage exposes an industry to higher level of risk but if the return on assets is higher, it can be very beneficial as it was for the cement industry of Pakistan. The sugar sector of Pakistan has employed the highest long-term capital structure showing that the portion in its total of long-term debt is higher than the short-term debt. High long-term capital structure shows sugar industry is more exposed to the business risk. It shows that Pakistani firms generally with higher exposure to business risks do not result in lower levels of long-term capital structure as the interest ratio of sugar industry is highest as well showing its capability to pay back its loans. Chemical industry tends to raise its working capital through short-term debt financing.

Correlation shows the relation among different variables, it shows a highly positive correlation among the current ratio and the quick ratio (Table 2). Different sectors show different relations between dependent and independent variables. The relation of the long-term capital structure with the total Asset structure and size is significantly positive. The short-term debt financing has a mixed kind of relation with the growth ratios and the liquidity ratios also have mixed relations with all four measures of indebtedness. The positive relation between long-term capital structure and total assets show that in Pakistani firms, mostly assets are

Table 1: Descriptive Statistics

		Total Assets (Rs in Billions)	Financial Leverage	Long-Term Capital Structure	Short-Term Debt Financing Ratio	Interest Ratio	Total Equity (Rs in Billions)
Overall N=100	Mean	10.49	-15.245	-.053	.89	34.894	44.64
	St Dev	16.95	17.573	4.069	4.654	21.97	10.25
Sugar Sector N=20	Mean	4.27	2.287	2.533	0.0358	94.859	1.08
	St Dev	499.9	6.614	1.560	9.253	443.640	15.59
Chemical Sector N=20	Mean	15.94	-86.251	-1.379	1.245	21.045	6.15
	St Dev	23.64	392.079	7.782	4.503	72.539	10.27
Construction Sector N=30	Mean	12.38	3.081	0.484	0.466	4.689	6.13
	St Dev	16.07	14.451	2.778	1.260	76.188	11.95
Textile Sector N=30	Mean	9.30	2.077	-0.098	0.329	34.355	3.96
	St Dev	16.79	10.967	2.404	1.219	151.0175	11.50

Table 2: Correlation Analysis

Dependent Variables	FL				LTCS				STDFR				IR			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CR	-.031	.275	-.084	-.002	.000	.256	-.103	.092	-.060	-.280	-.030	.108	-.076	.539*	.217	.028
CL	.077	-.320	-.108	.028	.114	-.297	-.057	.149	.058	.307	-.225	-.022	.019	-.166	.230	-.160
QR	-.040	.231	-.051	-.037	.056	.219	-.041	.095	-.082	-.239	-.071	.006	-.048	.676**	.218	.078
PER	.005	.172	.111	.037	-.028	.160	-.031	.037	-.034	-.159	.810**	-.064	.008	-.073	.059	.012
PNEG	-.480*	.141	.148	-.156	-.108	.142	.144	-.263	-.106	-.153	-.159	-.062	.007	.027	.015	.347
PAG	.312	.377	-.011	-.023	.171	.368	.019	.028	-.035	-.390	-.078	.048	.780*	.117	.226	-.016
NLMC	.113	-.165	-.119	.649**	.067*	-.155*	-.021*	.485**	.083	.160	-.416*	.414*	.356	-.149	.225	-.087
TA	.082	.043	-.109	-.003	.169*	.052*	.058*	.106*	.022	-.055	-.203	.004	.029	-.099	.332	-.127
TPBT	-.116	.340	-.042	-.036	-.245	.333	.011	-.003	-.039	-.334	-.247	-.044	.059	.065	.012	-.057

***Significant at 10%

**Significant at 1%

*Significant at 5%

Sector 1: Sugar Sector

Sector 2: Chemical Sector

Sector 3: Materials and Construction (Cement) Sector

Sector 4: Textile Sector

Table 3: Regression Analysis with Financial Leverage as Dependent Variable

	Standardized Coefficients (T-Ratio) Dependent Variable: Financial Leverage			
	Sugar Sector	Chemical Sector	Materials and Construction (Cement) Sector	Textile Sector
Current Ratio	1.154(1.689)	.198(.357)	-.008(-.015)	.357(1.093)
Quick Ratio	-.854(-1.319)	-.257(-.401)	-.156(-.265)	-.146(-.472)
PE Ratio	1.068*(2.197)	-.333(-.789)	.098(.459)	.068(.446)
Previous Net Earnings Growth	-.736*(-2.724)	.099(.376)	.323(1.124)	-.192(-1.269)
Previous Net Asset Growth	.288(1.241)	.464(1.148)	.251(.830)	.178(1.071)
Natural Log of Market Capitalization	-.35(-.141)	-.029(-.107)	-.151(-.621)	.787**(4.910)
Tax to Profit before Tax	-.623(-1.396)	.481(1.345)	.014(.064)	.058(.261)
ANOVA				
F-Ratio	1.823	0.719	0.280	3.720**
R	0.718	0.544	0.286	0.736
R-Squared	0.515	0.295	0.082	0.542

backed by long-term loans. Other variables do not follow a trend and show that every industry is different from the other.

The Table 3 shows the regression analysis of the independent variables with dependent variable financial leverage. PE ratio shows a significantly positive relation

Table 4: Regression Analysis with Long-Term Capital Structure as Dependent Variable

	Standardized Coefficients (T-Ratio) Dependent Variable: Long-Term Capital Structure			
	Sugar Sector	Chemical Sector	Materials and Construction (Cement) Sector	Textile Sector
Current Ratio	-.069 (-.084)	.162 (.291)	-.228 (-.411)	.336 (.928)
Quick Ratio	.175 (.223)	-.247 (-.383)	.055 (.093)	.081 (.237)
PE Ratio	.950 (1.620)	-.355 (-.837)	-.021 (-.097)	.087 (.512)
Previous Net Earnings Growth	.027 (.083)	.093 (.353)	.277 (.957)	-.319***(-1.897)
Previous Net Asset Growth	.258 (.922)	.474 (1.164)	.219 (.717)	.190 (1.031)
Natural Log of Market Capitalization	.065*** (.220)	-.028 (-.102)	-.063 (-.255)	.632** (3.559)
Tax to Profit before Tax	-1.087*** (-2.020)	.493 (1.369)	.025 (.114)	-.098 (-.401)
ANOVA				
F-Ratio	0.718	0.688	0.228	2.448***
R	0.543	0.535	0.260	0.662
R-Squared	0.295	0.286	0.068	0.438

Table 5: Regression Analysis with Short-Term Debt Financing Ratio as Dependent Variable

	Standardized Coefficients (T-Ratio) Dependent Variable: Short-Term Debt Financing Ratio			
	Sugar Sector	Chemical Sector	Materials and Construction (Cement) Sector	Textile Sector
Current Ratio	.275 (.289)	-.204 (-.372)	.160 (.540)	.590 (1.464)
Quick Ratio	-.415 (-.458)	.275 (.433)	-.100 (-.313)	-.278 (-.732)
PE Ratio	-.042 (-.062)	.363 (.871)	.736** (6.398)	-.007 (-.037)
Previous Net Earnings Growth	-.128 (-.340)	-.105 (-.403)	-.143 (-.923)	-.136 (-.726)
Previous Net Asset Growth	-.140 (-.433)	-.497 (-1.241)	-.074 (-.456)	.133 (.650)
Natural Log of Market Capitalization	.194 (.565)	.019 (.073)	-.179 (-1.368)	.534*** (2.702)
Tax to Profit before Tax	-.049 (-.079)	-.491 (-1.388)	-.127 (-1.081)	-.098 (-.358)
ANOVA				
F-Ratio	0.100	0.772	8.622**	1.367
R	0.235	0.557	0.557	0.551
R-Squared	0.055	0.310	0.733	0.303

with financial leverage in sugar sector at 5% significance level while previous net earnings' growth has a negative relation with financial leverage in sugar sector at 5% significance level. Other sectors do not follow a similar trend. Natural log of market capitalization in textile sector has a highly positive relation with financial leverage at 10% showing an increase in financial leverage with result in the increase in natural log of market capitalization as well. The F-ratio of textile is significant at 1% with highest value of R that is 73.6% and R-squared at 54.2%.

The Table 4 shows a significantly positive relation of long-term capital structure with natural log of market capitalization while a negative relation with tax to profit before tax ratio at 10% significance level in sugar sector. Long-term capital structure shows a significantly negative relation with previous net earnings' growth and a significantly positive relation with natural log of market capitalization in the textile sector. The F-ratio is significant for textile sector only with highest R 66.2% and R-squared 43.8%.

The Table 5 shows a highly positive relation of PE ratio with short-term debt financing at 1% significance level in the materials and construction (cement) sector and the natural log of market capitalization with short-term debt financing ratio at 10% significance level. The F-ratio is significant for material and construction (cement) sector with R 55.7% and R-squared 73.3%.

According to Table 6 the interest ratio has a highly positive relation with previous net earnings growth at 1% significance level in the sugar sector. In chemical sector the interest ratio has a significantly negative relation with current ratio and previous net earnings growth at 10% and 1% significance level respectively while a significantly positive relation with quick ratio and PE ratio at 1% and 5% significance level respectively. The F-ratio is significant for both the sugar sector as well as chemical sector with R 81.9 and 89.7% of sugar and chemical sectors respectively. R-squared of sugar sector is 67.1% and of chemical sector is 80.5%.

Table 6: Regression Analysis with Interest Ratio as Dependent Variable

	Standardized Coefficients (T-Ratio) Dependent Variable: Interest Ratio			
	Sugar Sector	Chemical Sector	Materials and Construction (Cement) Sector	Textile Sector
Current Ratio	-.301 (-.534)	-.546*** (-1.874)	.070 (.132)	-.219 (-.505)
Quick Ratio	.223 (.417)	1.792** (5.313)	.065 (.113)	.401 (.977)
PE Ratio	-.031 (-.077)	.514* (2.319)	.134 (.647)	.047 (.228)
Previous Net Earnings Growth	.313 (1.408)	.353* (2.558)	.109 (.391)	.395*** (1.957)
Previous Net Asset Growth	.807** (4.218)	-.914** (-4.300)	.210 (.713)	-.133 (-.600)
Natural Log of Market Capitalization	.105 (.515)	-.211 (-1.490)	.195 (.825)	-.122 (-.570)
Tax to Profit before Tax	-.164 (-.446)	-.124 (-.657)	-.037 (-.172)	-.241 (-.820)
ANOVA				
F-Ratio	3.497*	7.068**	0.469	0.733
R	0.819	0.897	0.360	0.435
R-Squared	0.671	0.805	0.130	0.189

Regression analysis shows the level of independent variables explaining the dependent variables. The observation of all the four measures of indebtedness individually with independent variables that represent capital structure in selected four industrial sectors shows that capital structure differences exist among the selected four industries. So, we can conclude that overall, in Pakistani firms, there are significant differences in the determinants of the four measures of debt.

Hypotheses Testing:

- There are prominent differences across debt measures in all the industrial sectors. The materials and construction (cement) sector has highest leverage, sugar sector employees the highest long-term capital structure, short-term debt is highest in chemical industry and interest ratio is highest in sugar sector. Therefore, hypothesis H1 is accepted.
- As liquidity is not positively associated with the measures of indebtedness, current ratio and quick ratio show mixed relations with financial leverage, long-term capital structure, short-term debt financing ratio and interest ratio throughout the sample of four sectors studied. Therefore hypothesis H2 is not accepted.
- There is a positive relation between the total asset structure and long-term capital structure. Therefore hypothesis H3 is accepted.
- Two sectors from the study show positive relation between the size and long-term capital structure (Sugar and Textile) and two show negative relation (Chemical and Materials and Construction Sectors) and overall correlation shows a positive relation between size and long-term capital structure. Therefore, hypothesis H4 is accepted.

- Short-term debt measure is not positively related to the growth ratios (in earnings or in assets). Therefore, hypothesis H5 is not accepted.
- The four measures of indebtedness which are measures of capital structure show a different behavior in every industrial sector which shows capital structure differences exist among the four industrial sectors. Hence, hypothesis H6 is accepted.

CONCLUSION

The analysis consisted of two types of variables. Capital structure measures which formed the dependent variables including financial leverage, long-term capital structure, short-term debt financing ratio and the interest ratio and firm characteristics variables which formed independent variables including current ratio, current liabilities, quick ratio, PE ratio, previous net earnings growth, previous assets growth, total assets, natural log of market capitalization, tax to profit before taxes ratio. The tests conducted showed the relation between all these variables as well as showed the capital structure differences among the different industrial sectors (Omran and Pointon, 2009) [14].

Descriptive statistics shows there are differences among the four measures of indebtedness in all the selected four industrial sectors. The materials and construction (cement) sector has highest leverage, sugar sector employees the highest long-term capital structure, short-term debt is highest in chemical industry and interest ratio is highest in sugar sector. Correlation shows the relation among different variables, it shows a highly positive correlation among the current ratio and the quick ratio. The relation of the long-term capital structure with the total Asset structure and size is significantly positive. The short-term debt financing has

a mixed kind of relation with the growth ratios and the liquidity ratios also have mixed relations with all four measures of indebtedness which cannot be hypothesized. Regression analysis shows the level of independent variables explaining the dependent variables. The observation of all the four measures of indebtedness individually with independent variables that represent capital structure in selected four industrial sectors shows that capital structure differences exist among the selected four industries. Following are given some recommendations on the basis of the conducted study:

- High cost of financing has made it difficult for firms to improve the leverage and manage debt.
- The major source of debt used by these sectors is bank loans so the State Bank of Pakistan should provide loans at subsidized rates for making it easy for the firms to finance their operations.
- The companies should focus more on long-term capital structure as it makes a company stable in the long-run. Short-term debt financing should also be focused but only to the extent of stabilizing the current financial position of the firms but the short-term debt financing is not positively related to the size of the firm.
- Government of Pakistan needs to take some serious steps for developing the debt market and making it easy for companies to obtain loans and finance their operations.
- Companies should improve the asset structure by employing long-term capital structure as both of them have a positive relation.

REFERENCES

1. Gerstenberg, Charles, W., 1946. "Principles of Business", Publisher: Prentice Hall, NY Publication Date: 1946 Binding: Hard Cover Book Condition: Fair Dust Jacket Condition: No Jacket. (book).
2. Modigliani, F. and M.H. Miller, 1963. "Corporate Income Taxes and the Cost of Capital: A Correction", *American Economic Review*, 53: 433-443.
3. Miller, M., 1977. "Debt and Taxes," *Journal of Finance* 32, May 1977, pp: 261-275.
4. Myers, S.C. and N. Majluf, 1984. "Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have", *Journal of Financial Economics*, 13: 187-221.
5. Kraus, A. and R.H. Litzenberger, 1973. "A State-Preference Model of Optimal Financial Leverage", *The Journal of Finance*, 28(4): 911-922.
6. Jensen, Michael C. and H. Meckling, William, 1976. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", *Journal of Financial Economics (JFE)*, 3(4).
7. Baker, M. and J. Wurgler, 2002. "Market Timing and Capital Structure", *The Journal of Finance*, 57(1): 1-32.
8. Akerlof, G., 1970. "The Market for Lemons", *Quarterly Journal of Economics*, 84: 488-500.
9. Spence, M., 1973. "Job Market Signaling", *The Quarterly Journal of Economics*, 87(3): 355-374.
10. Harris, M. and A. Raviv, 1991. "The Theory of Capital Structure", *Journal of Finance*, 46: 297-355.
11. Niu, X., 2008. "Theoretical and Practical Review of Capital Structure and its Determinants", *International Journal of Business and Management*, 3(3).
12. Nguyen, H.L., 2014. "How Firm Characteristics Affect Capital Structure-An Analysis of Finnish Technology Industry", *Lahti University of Applied Sciences, Degree Program in International Business*.
13. Suhaila, M.K. and W.M.W. Mahmood, 2008. "Capital Structure and Firm Characteristics: Some Evidence from Malaysian Companies", *MPRA Paper No. 14616*.
14. Omran, M.M. and J. Pointon, 2009. "Capital structure and firm characteristics: an empirical analysis from Egypt", *Review of Accounting and Finance*, 8(4): 454-474.
15. Al-Najjar, B. and K. Hussainey, 2011. "Revisiting the capital-structure puzzle: UK evidence", *The Journal of Risk Finance*, 12(4): 329-338.
16. Antwi, S., E.F.E. Atta Mills and X. Professor Zhao, 2012. "Capital Structure and Firm Value: Empirical Evidence from Ghana", *International Journal of Business and Social Science*, 3: 22.
17. Barton, S.L., N.C. Hill and S. Sundaram, 1989. "An Empirical Test of Stakeholder Theory Predictions of Capital Structure", *Financial Management*, 18(1): 36-44.
18. Bhaduri, S.N., 2002. "Determinants of Capital Structure Choice: A study of the Indian Corporate Sector", *Journal of Applied Financial Economics*, 12(9): 655-665.
19. Boateng, A., 2003. "Determinants of Capital Structure: Evidence from International Joint Ventures in Ghana", *International Journal of Social Economics*, 31(1/2): 56-66.

20. Chang, X. and S. Dasgupta, 2009. "Target Behavior and Financing: How Conclusive Is the Evidence?" *Journal of Finance*, 64: 1767-1796.
21. Chechet, I.L., S.L. Garba and A.S. Odudu, 2013. "Determinants of Capital Structure in the Nigerian Chemical and Paints Sector", *International Journal of Humanities and Social Science*, 3: 15.
22. Chen, H., 2010. "Macroeconomic Conditions and the Puzzles of Credit Spreads and Capital Structure", *The Journal of Finance*, 65(6): 2171-2212.
23. Chen, J., C. Jiang and Y. Lin, 2014. "What determine firms' capital structure in China?" *Managerial Finance*, 40(10): 1024-1039.
24. Dr Saravana, S. and V.D. Nandini, 2015. "Impact of Capital Structure on Profitability of Select Paper Industries in India", *Intercontinental Journal of Finance Research Review*, 3: 3.
25. Driffield, N. and S. Pal, 2010. "Evolution of Capital Structure in East Asia-Corporate Inertia or Endeavors?", *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 173(1): 1-29.
26. Drobetz, W. and R. Fix, 2003. "What are the Determinants of the Capital Structure? Some Evidence for Switzerland", University of Basel. WWZ/ Department of Finance, Working Paper No. 4/03
27. Frank, M.Z. and V.K. Goyal, 2005. "Testing the pecking Order Theory of Capital Structure", *Journal of Financial economics*.
28. Friend, I. and H.P. Lang, 1988. "An Empirical Test of the Impact of Managerial Self Interest on Corporate Capital Structure", *Journal of Finance*, 43: 271-81.
29. Gilson, S., 1997. "Transactions Costs and Capital Structure Choice: Evidence from Financially Distressed Firms", *Journal of Finance*, 52: 161-196.
30. Gómez, G., A.M. Rivas and E.R.L. Bolaños, 2014. "The determinants of capital structure in Peru", *Academia Revista Latinoamericana de Administración*, 27(3): 341-354.
31. González, V. and F. González, 2012. "Firm Size and Capital Structure: Evidence Using Dynamic Panel Data", *Applied Economics*, 44: 4745-4754.
32. Grahama, J.R. and C.R. Harvey, 1999. "The theory and practice of corporate finance: Evidence from the field", *Journal of Financial Economics*, 61(2001): 000-000.
33. Hall, G., P. Hutchinson and N. Michaelas, 2004. "Determinants of the Capital Structures of European SMEs", *Journal of Business Finance and Accounting*, 31: 711-728.
34. Hatfield, G.B., L.T.W. Cheng and W.N. Davidson, 1994. "The determination of Optimal Capital Structure: The Effect of firm and Industry debt ratios on Market Value, *Journal Of Financial And Strategic Decisions and Volume 7 Number 3*.
35. Hussain, Q. and E. Nivorozhkin, 1997. "The capital structure of listed companies in Poland", IMF working paper WP/97/175.
36. Hussain, Q., 1996. "Capital structures in middle-income countries: A study of Indonesia and Malaysia". *Research in International Business and Finance*.
37. Kester, W.C., 1986. "Capital and Ownership Structure; A Comparison of United States and Japanese Manufacturing Corporations", *Financial management*, 15: 5-16.
38. Kim, E.H., 1978. "A Mean-Variance Theory of Optimal Capital Structure and Corporate Debt Capacity," *Journal of Finance* 33, March 1978, pp: 45-63.
39. Kocchar, R., 1997. "Strategic Assets, Capital Structure and Firm Performance", *Journal Of Financial And Strategic Decisions*, 10: 3.
40. Li, P. and B. Wang, 2014. "Overseas listing location and capital structure", *China Finance Review International*, 4(1): 3-23.
41. Luigi, P. and V. Sorin, 2009. "A Review of the Capital Structure Theories", *Annals of Faculty of Economics*, 2009, 3(1): 315-320.
42. Majumdar, S.K. and P. Chhibber, 1999. "Capital Structure and Performance: Evidence from a Transition Economy on an Aspect of Corporate Governance", *Public Choice*, 98: 287-305.
43. Marimuthu, M., 2009. "Corporate Restructuring, Firm Characteristics and Implications on Capital Structure: an Academic View", *International Journal of Business and Management*, 4(1).
44. Mateev, M. and K. Ivanov, 2011. "How SME Uniqueness Affects Capital Structure: Evidence from Central and Eastern Europe Panel Data", *Quarterly Journal of Finance and Accounting*, 50(1): 115-143.
45. McClure, K.G., R. Clayton and R.A. Hofler, 1999. "International capital structure differences among the G7 nations: a current empirical view", *The European Journal of Finance*, 5(2): 141-164.
46. Michaelas, N., F. Chittenden and F. Poutziouris, 1999. "Financial Policy and Capital Structure Choice in UK SMEs: Empirical Evidence from Company Panel Data", *Small Business Economics*, 12: 113-130.

47. Michalak, A., 2013. "Theoretical Conceptions of Optimal Capital Structure", Management, Knowledge and Learning, International Conference.
48. Mishra, C.S., 2011. "Determinants of Capital Structure – A Study of Manufacturing Sector PSUs in India", Conference on Financial Management and Economics IPEDR, pp: 11.
49. Murinde, V., J. Agung and A.W. Mullineux, 2004. "Patterns of Corporate Financing and Financial System Convergence in Europe". *Review of International Economics*, 12(4): 693-705.
50. Oded, J., A. Michel and S.P. Feinstein, 2011. "Distortion in corporate valuation: implications of capital structure changes", *Managerial Finance*, 37(8): 681-696.
51. Okada, K., 2006. "Size Effect and Firm Size-New Relationship with the Value Effect", *Security Analysts Journal*, 44: 7.
52. Rajan, R.G. and L. Zingales, 1995. "What Do We Know about Capital Structure: Some Evidence from International Data", *Journal of Finance*, 50: 1421-1460.
53. Rajan, R.G. and Zingales, 1998. "Financial Dependence and Growth", *American Economic Review*, 88(3): 261-97.
54. Ramalho, J. and J. Silva, 2009. "A Two-Part Fractional Regression Model for the Financial Leverage Decisions of Micro, Small, Medium and Large Firms", *Quantitative Finance*, 9: 621-636.
55. Ramjee, A. and T. Gwatidzo, 2012. "Dynamics in capital structure determinants in South Africa", *Meditari Accountancy Research*, 20(1): 52-67.
56. Ross, S.A., 1985. "Debt and Taxes and Uncertainty", *Journal of Finance*, 40: 637- 657.
57. Salehi, M. and K. Biglar, 2009. "Study of the Relationship between Capital Structure Measures".
58. Shah and Khan, 2007. "Determinants of Capital Structure: Evidence from Pakistani Panel Data", *International Review of Business Research Papers*, 3(4), October 2007, pp: 265-282.
59. Sogorb-Mira, F., 2005. "How SME Uniqueness Affects Capital Structure: Evidence from a 1994-1998 Spanish Data Panel", *Small Business Economics*, 25: 447-457.
60. Stretcher, R. and S. Johnson, 2011. "Capital structure: professional management guidance", *Managerial Finance*, 37(8): 788-804.
61. Titman, S. and R. Wessels, 1988. "The Determinants of Capital Structure Choice", *Journal of Finance*, 43: 1-21.
62. Van der Wijst, N. and R. Thurik, 1993. "Determinants of Small Firm Debt Ratios: An Analysis of Retail Panel Data", *Small Business Economics*, 5: 55-65.
63. Villamil, Anne, P., 2008. "Modigliani-Miller theorem, *The New Palgrave Dictionary of Economic*". Second Edition. Eds. Steven N. Durlauf and Lawrence E. Blume. Palgrave Macmillan.
64. Voulgaris, F., D. Asteriou and G. Agiomirgianakis, 2002. "Capital structure, asset utilization, profitability and growth in the Greek manufacturing sector", *Applied Economics*, 34(11): 1379-1388.
65. Wang, Z. and W. Zhu, 2013. "Equity financing constraints and corporate capital structure: a model", *China Finance Review International*, 3(4): 322-339.
66. Yu, B., 2012. "Agency costs of stakeholders and capital structure: international evidence", *Managerial Finance*, 38(3): 303-324.
67. Zeitun, R. and G.G. Tian, 2007. "Capital Structure and Corporate Performance: Evidence from Jordan", *The Australasian Accounting Business and Finance Journal*, 1(4).