



THE IMPACT OF CAPITAL STRUCTURE ON FIRMS  
OPERATING PERFORMANCE

by

ZURAIDAH BINTI AHMAD

801927

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Finance at the Graduate School of Management,  
Universiti Utara Malaysia

## **DECLARATION**

I hereby declare that the project paper is based on my original work except for quotations and citations that have been duly acknowledged. I also declare it has not been previously or concurrently submitted for any other master's programme at UUM or other institutions.



---

**ZURAIDAH BINTI AHMAD**

**25 NOVEMBER 2009**

## **PERMISSION TO USE**

In presenting this dissertation in partial fulfillment of the requirements for a postgraduate degree from University Utara Malaysia, I agree that the university's library may take it freely available for inspection. I further agree that permission for copying of this dissertation in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or in other absence by the Dean, Postgraduate studies, and College of Business. It is understood that any copying or publication or use of this dissertation or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due to recognition should be given to me and to University Utara Malaysia for any scholarly use which may be made of any material from my dissertation.

Request for permission to copy or to make other use of materials in this dissertation, in whole or in part should be addressed to:

Dean  
College of Business  
University Utara Malaysia  
06010 Sintok  
Kedah

## ABSTRAK

Kajian ini bertujuan untuk menyiasat kesan daripada struktur modal pada prestasi syarikat dengan menganalisis hubungan antara prestasi operasi syarikat Malaysia, yang diukur dengan pulangan ke atas aset dan pulangan ke atas ekuiti dengan hutang jangka pendek, hutang jangka panjang dan jumlah hutang. Empat pembolehubah yang ditemui oleh sebahagian besar kajian untuk mempunyai pengaruh terhadap prestasi operasi syarikat, iaitu, saiz, pertumbuhan aset, pertumbuhan jualan dan kecekapan yang digunakan sebagai kawalan pembolehubah. Kajian ini merangkumi empat sektor utama dalam pasaran ekuiti Malaysia yang mana terdiri daripada sektor pengguna, industri, perdagangan atau perkhidmatan dan hartanah. 240 syarikat yang dikenalpasti sebagai contoh syarikat dan data kewangan dari tahun 2002 hingga 2007 adalah digunakan sebagai pemerhatian untuk kajian ini, sehingga jumlah pemerhatian 1440. Serangkaian analisis regression di laksanakan ke atas setiap model, dimana salah satu menjadi struktur modal menjadi proksi termasuk dalam setiap analisis. Nilai lag untuk proksi digunakan untuk menggantikan nilai-nilai non lag untuk menentukan dan menyemak sejauh mana kesan struktur modal ke atas pelaksanaan syarikat. Kajian ini mendapati hanya hutang jangka panjang yang mempunyai hubungan kepentingan dengan pulangan aset tetapi bukan pulangan ke atas ekuiti. Analisis dengan nilai-nilai lag menunjukkan bahawa bukan dari nilai-nilai lag untuk jumlah hutang, hutang jangka pendek dan hutang jangka panjang mempunyai hubungan yang penting dengan prestasi. Oleh kerana itu kajian menyimpulkan bahawa struktur modal tidak menjejaskan prestasi operasi syarikat di Malaysia.

**Kata Kunci:** prestasi operasi, struktur modal, pasaran saham Malaysia

## ABSTRACT

This study seeks to investigate the impact of capital structure on firm performance by analyzing the relationship between operating performance of Malaysian firms, measured by return on asset (ROA) and return on equity (ROE) with short-term debt (STD), long-term debt (LTD) and total debt (TD). ). Four variables found by most literature to have an influence on firm operating performance, namely, size, asset grow, sales grow and efficiency, are used as control variables. This study covers four major sectors in Malaysian equity market which are the consumers, industrials, trading or services and properties sectors. 240 firms were identified as the sample firms and their financial data from the year 2002 through 2007 are used as observations for this study, resulting in a total number of observations of 1440. A series of regression analysis were executed for each model, where either one of the capital structure proxies is included in each analysis. Lag values for the proxies were also used to replace the non lag values in order to ensure that any extended effect of capital structure on firm performance is also examined. The study finds that only long term debt has significant relationship with ROA but not with ROE. The analysis with lagged values shows that non of lagged values for total debt, short term debt and long term debt has significant relationship with performance. The study therefore concludes that capital structure does not affect operating performance of Malaysian firms.

**Keywords:** operating performance, capital structure, Malaysian stock market

## **ACKNOWLEDGMENTS**

All my praises and gratitude to Allah, the Merciful, for His kindness and for meeting me with many wonderful people, who with His Grace, have had helped me tremendously in the successful completion of this research.

First of all, I would like to take this opportunity to extend my sincere gratitude and deepest appreciation to my dearest family especially my parents, my brothers and my sister who has been very supportive and understanding throughout my M.Sc. Finance program in University Utara Malaysia since June 2008.

Most of all, I would like to thank my supervisor Associate Professor Dr. Yusnidah Ibrahim, for her valuable advice, guidance and support throughout the preparation of this research, subsequently made this a reality.

I am also grateful to my roommate, course mate and close friends who have helped me sincerely and had brought joy and new light upon my life in UUM.

To all those people, thank you so much.

## LIST OF TABLES

<i>Table 2.3</i>	<i>Summary of Empirical Literature</i>
<i>Table 3.2</i>	<i>Expected Relations of Variables</i>
<i>Table 4.2</i>	<i>Summary of Sample Descriptive Statistic</i>
<i>Table 4.3</i>	<i>Pearson Correlation Matrix of Variables</i> <i>(p-value is given in the parentheses)</i>
<i>Table 4.4</i>	<i>Output for Regression Analysis with ROA as</i> <i>the dependent variable</i>
<i>Table 4.5</i>	<i>Output for Regression Analysis with ROE as</i> <i>the dependent variable</i>
<i>Table 4.6</i>	<i>Serial Correlation and Heteroscedasticity Diagnostic Tests</i> <i>(ROA and ROE as dependent variables)</i>

## **CHAPTER 5: CONCLUSION**

5.1	Introduction	66
5.2	Overview of the Research Process	66
5.3	Summary of the Findings	68
5.4	Implications of the Study	68
5.5	Direction for Further Studies	70
5.6	Conclusion	71

<b>REFERENCES</b>	<b>72</b>
-------------------	-----------

## **APPENDICES**



## **TABLE OF CONTENTS**

### **CHAPTER 1: BACKGROUND OF THE STUDY**

1.1	Introduction	1
1.2	Problem Statement	5
1.3	Objective of the Study	8
1.4	Significance of the Study	9
1.5	Limitations of the Study	10
1.6	Conclusion	11

### **CHAPTER 2: LITERATURE REVIEW**

2.1	Introduction	12
2.2	Theoretical Literature	12
2.3	Empirical Literature	17
2.4	Summary	43

### **CHAPTER 3: RESEARCH METHOD**

3.1	Introduction	44
3.2	Research Framework	44
3.2.1	Independent Variable	45
3.2.2	Control Variable	46
3.3	Sample Description and Data Collection	48
3.4	Data Analysis	48
3.4.1	Return on Asset	48
3.4.2	Return on Equity	49
3.5	Measurement of Variable	49
3.6	Conclusion	51

### **CHAPTER 4: ANALYSIS AND FINDINGS**

4.1	Introduction	52
4.2	Descriptive Analysis	52
4.3	Correlation Analysis	55
4.4	Regression Analysis	58
4.5	Conclusion	65

## **LIST OF ABBREVIATIONS**

ROA: Return on asset

ROE: Return on equity

STD: Short term debt

LTD: Long term debt

TD: Total debt

SIZE: Size

AGROW: Asset growth

SGROW: Sales growth

EFF: Efficiency

(D<sub>t-1</sub>): Last year debt

(D<sub>t-2</sub>): Last two years debt

# **CHAPTER ONE**

## **BACKGROUND OF THE STUDY**

### **1.1 INTRODUCTION**

Capital structure decision is the mix of debt and equity that a company uses to finance its business (Damodaran, 2001). Hence, the relationship between capital structure decisions and firm value has been extensively investigated in the past few decades. Modigliani and Miller (1958) suggested that, in a world without friction, there is no difference between debt and equity financing as regards the value of the firm. Thus, financing decision add no value and are therefore of no concern to the managers. Evidence would suggest that this does not hold in reality.

However, today, capital structure is one of the important financial decisions for any business organization. This decision is important because the organization need to maximize return to various organization' and also have an effect on the value of the firm. Besides that, the impact from the decision will help the firm's ability to deal with its competitive environment. Furthermore, the capital structure of a firm is a mix of debt and equity that is used by a firm to enhance its operation. Thus, a firm's specific strategy should deal with the appropriate mix of debt and equity to finance the firm's assets.

The contents of  
the thesis is for  
internal user  
only

## LIST OF REFERENCES

- Agarwal *et. al* (2001). Bank-firm relationships, financing and firm performance in Germany. *Economics Letters* 72, pp. 225–232
- Anthony Kyereboah-Coleman (2007). The impact of capital structure on the performance of microfinance institutions. *The Journal of Risk Finance*, Vol. 8, No.1, pp. 56-71
- Campello, M., (2006). Debt Financing: Does it boost or hurt firm performance in product markets? *Journal of Financial Economics*, 82, 135-172
- Cecile Carpentier (2006). The valuation effects of long-term changes in capital structure. *International Journal of Managerial Finance*, Vol .2 No.1, pp.4-18
- Champion, D. (1999). Finance: the joy of leverage. *Harvard Business Review*, Vol. 77 No. 4, pp. 19-22.
- Chaganti, R., DeCarolis, D. and Deeds, D. (1995). Predictors of capital structure in small ventures. *Entrepreneurship Theory and Practice*, winter, pp. 1042-2587.
- Damodaran, A., (2001). *Corporate Finance: Theory and Practice* (2<sup>nd</sup> ed.). Wiley
- Fama, E.F. and French, K.R. (1998). Taxes, financing decisions, and firm value. *The Journal of Finance*, Vol. 53, pp. 819-43.

- Gleason, K.C., and Mathur, L.K. and Mathur, I. (2000). The interrelationship between cultures, capital structure, and performance: evidence from European retailers. *Journals of Business Research*, Vol.50, pp.185-91
- Gongmeng Chen *et. al* (2008). The efficiency and profitability effects of China's modern enterprise restructuring programme. *Asian Review of Accounting*, Vol.16, No.1, pp.74-91
- Grossman, S. and Hart, O. (1986). The costs and benefit of ownership: A theory of vertical and lateral integration. *Journal of Political Economy*, Vol. 94, pp. 691-719
- Hadlock, C.J. and James, C.M. (2002). Do banks provide financial slack? *Journal of Finance*, Vol. 57, pp. 1383-420.
- Hamada, R. (1969). Portfolio analysis, market equilibrium and corporate finance. *Journal of Finance*, Vol. 24, pp. 13-31.
- Heinkel, R. (1982). A theory of capital structure relevance under imperfect information. *Journal of Finance*, Vol. 37, pp. 1141-50.
- Hutchinson, R.W. (1995). The capital structure and investment decisions of the small owner-managed firm: some explanatory issues. *Small Business Economics*, Vol. 7, pp. 231

- I.M. Pandey (2001). Financial goals choices and performance of firms in Malaysia. Indian Institute of Management Ahmedabad, India, IIMA Working Papers, available:<http://www.iimahd.ernet.in/publications/data/2001-002impandey.pdf>
- Ike Mathur, Manohar Singh and Kimberly C. Gleason (2001). The evidence from Canadian firms on multinational diversification and performance. *The Quarterly Review of Economics and Finance*, Vol. 41, pp. 561-578.
- Jensen, M. and Meckling, W. (1976). Theory of the firm: managerial behaviour, agency cost and ownership structure. *Journal of Financial Economics*, Vol. 3, Issue 4, pp. 303-431.
- Jensen, M. (1986). Agency cost of free cash-flow, corporate finance and takeovers. *American Economic Review*, Vol. 76, pp. 323-9.
- Johnny Jermias (2008). The relative influence of competitive intensity and business strategy on the relationship between financial leverage and performance. *The British Accounting Review* 40, 71-86
- Joshua Abor (2007). Debt policy and performance of SMEs: Evidence form Ghanaian and South African firms. *The Journal of Risk Finance*, Vol.8 No.4, pp.364-379
- Joshua Abor (2005).The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, Vol.6 No.5, pp.438-445

- Klaus Hammes and Yinghong Chen (2004). Performance of the Swedish real estate sector. Working paper, available at SSRN: <http://ssrn.com/abstract=495442>
- Kinsman and Newman (1998). Debt associated with lower firm performance: findings calls for review of rise in debt use. Graziadio Business Report Fall, Working paper, available at <http://bschool.pepperdine.edu/gbr>
- Kirti Madan (2007). An analysis of the debt-equity structures of leading hotel chains in India. *International Journal of Contemporary Hospitality Management*. Vol.19 No.5, pp.397-414
- Majumdar, S.K. and Chhibber, P. (1999). Capital structure and performance: evidence from a transition economy on an aspect of corporate governance. *Public Choice*, Vol. 98, pp. 287-305.
- Masulis, R. (1980). The effect of capital structure change on security prices. *Journal of Financial Economics* 8 (June), pp.139-178
- Mesquita and Lara (2003). Capital structure and profitability: The Brazilian case. Working paper, Academy of Business and Administration Sciences Conference, Vancouver, July 11-13
- Miller, M.H. and Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, Vol. 40, pp. 1031-51.
- Miller, M.H. (1977). Debt and taxes. *Journal of Finance*, Vol. 32, pp. 261-76.



- Min-Tsung Cheng (2009). Relative effects of debt and equity on corporate operating performance: A quantile regression study. *International Journal of Management*, Vol.26, No.1
- Modigliani, F. and Miller, M. (1958).The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, Vol. 48 No. 3, pp. 261-97.
- Modigliani, F. and Miller, M. (1963).Corporate income taxes and the cost of capital: A correction. *American Economic Review*, Vol. 53, pp. 443-53.
- Myers, S.C. and Majluf, N.S. (1984).Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, Vol. 12, pp. 187-221.
- Myers, S.C., (2001). Capital structure. *Journal of Economic Perspectives*, Vol. 15, No.5, pp. 81-102.
- Noe, T. (1988).Capital structure and signaling game equilibria: *Review of Financial Studies*, Vol. 1, pp. 331-55.
- Phillips and Sipahioglu (2004). Performance implications of capital structure: evidence from quoted UK organizations with hotel interests. *The Service Industries Journal*, Vol.24, No.5, pp. 31-51

- Roden, D.M. and Lewellen, W.G. (1995). Corporate capital structure decisions: evidence from leveraged buyouts. *Financial Management*, Vol. 24, pp. 76-87.
- Ross, S. (1977). The determination of financial structure: The incentive signaling approach. *Bell Journal of Economics*, Vol. 8, pp. 23-40.
- Sekaran, U. (2003). *Research Methods for Business-A Skill Building Approach*, 3<sup>rd</sup> Ed. New York: John Wiley & Sons
- Smith, C. (1986). Investment banking and the capital acquisition process. *Journal of Financial Economics*, Vol. 15, pp. 3-29.
- Stiglitz, J. (1974). On irrelevance of corporate financial policy. *American Economic Review*, Vol. 64 No. 6, pp. 851-66.
- Titman, S. (1984). The effect of capital structure on a firm's liquidation decisions. *Journal of Financial Economics*, Vol. 13, pp. 137-51.
- Victoria Krivogorsky *et.al* (2009). Bank debt and performance of continental European firms. Working paper, available at SSRN: <http://ssrn.com/abstract=1209022>