

The Impact of Capital Structure on Firm Performance: Evidence from Tehran Stock Exchange

¹Mohammad Reza Ebrati, ²Farzad Emadi, ³Reza Saadati Balasang, ⁴Ghorban Safari

¹Department of Accounting, Tabriz Branch, Islamic Azad University, Tabriz, Iran

²Department of Accounting, Tabriz Science and Research Branch,
Islamic Azad University Tabriz, Iran

³Department of Accounting, Tabriz Branch, Islamic Azad University, Tabriz, Iran

⁴Department of Accounting, Tabriz Science and Research Branch,
Islamic Azad University Tabriz, Iran

Abstract: The purpose of this paper is to empirically investigate the impact of capital structure on firm performance. Multiple regression analysis is used in the study in estimating the relationship between the leverage level and firm's performance. Using four of accounting-based measures of financial performance (i.e. return on equity (ROE), return on assets (ROA), market value of equity to the book value of equity (MBVR), Tobin's Q), and based on a sample of 85 firms listed in Tehran Stock Exchange from 2006 to 2011. The results indicate that firm performance, which is measured by (ROE, MBVR & Tobin's Q) is significantly and positively associated with capital structure, while report a negative relation between capital structure and (ROA, EPS). Altogether, our study provides evidence that indicates firm performance is positively or even negatively related to capital structure.

Key words: Capital structure, Firm Performance, Accounting Measures, Market Measures, Tehran Stock Exchange

INTRODUCTION

The theory of capital structure and its relationship with a firm's value and performance has been a puzzling issue in corporate finance and accounting literature since the seminal work of Modigliani and Miller (1958) (MM-1958). MM-1958 argue that under very restrictive assumptions of perfect capital markets, investors' homogenous expectations, tax-free economy, and no transactions costs, capital structure is irrelevant in determining firm value. According to this proposition, a firm's value is determined by its real assets, not by the mix of securities it issues. If this proposition does not hold then arbitrage mechanisms will take place, investor will buy the shares of the undervalued firm and sell the shares of the overvalued firm in such a way that identical income streams are obtained. As investors exploit these arbitrage opportunities, the price of overvalued shares will fall and that of the undervalued shares will rise, until both prices are equal (Ebaïd, 2009).

However, these restrictive assumptions do not hold in the real world, which led many researchers to introduce additional rationalization for this proposition and its underlying assumptions showing that capital structure affects firm's value and performance, especially after the seminal paper of Jensen and Meckling (1976) which demonstrate that the amount of leverage in a firm's capital structure affects the agency conflicts between managers and shareholders by constraining or encouraging managers to act more in the interest of shareholders and, thus, can alter manager's behaviors and operating decisions, which means that the amount of leverage in capital structure affects firm performance (Harris and Raviv, 1991; Graham and Harvey, 2001;

Brav *et al.*, 2005, for overviews).

Since, Jensen and Meckling (1976) argument regarding the possibility of capital structure influence on firm performance, several researchers have followed this extension and conducted numerous studies that aim to examine the relationship between financial leverage and firm performance over the last decades. However, empirical evidence regarding this relationship is contradictory and mixed. While a positive relationship between leverage level and firm performance had been documented in some of these studies (Taub, 1975; Roden and Lewellen, 1995; Champion, 1999; Ghosh *et al.*, 2000; Hadlock and James, 2002). Other studies document a negative relationship between leverage level and firm performance (Fama and French, 1998; Gleason *et al.*, 2000; Simerly and Li, 2000).

While the literature examining the performance implications of capital structure choices is immense in developed markets (e.g. USA and Europe), little is empirically known about such implications in emerging or transition economies such Iran. In such a country as Eldomiati (2007) argued capital market is less efficient and incomplete and suffers from higher level of information asymmetry than capital markets in developed countries. This environment of the market may cause financing decisions to be incomplete and subject to a considerable

degree of irregularity. It is, therefore, necessary to examine the validity of corporate leverage levels impact on a firm's performance in Iran as an example of emerging economies (Ebaid, 2009).

This study aims to examine the relation between financing choices; including short-term debt to total assets (SDTA), long-term debt to total assets (LDTT), total debt to total assets (TDTA) and total debt to total equity (TDTQ); and firm performance; such as earning per share (EPS), return on assets (ROA), return on equity (ROE), Market value of equity/ Book value of equity (MBVR) EPS and Tobin's Q, over the period 2006- 2011 in the Tehran Stock Exchange using a pooling panel data procedure.

The remainder of this paper is organized as follows: Section two provides the literature review on capital structure and firm performance. Section three discusses the variable descriptions, expectation and methodology. The empirical results and discussion are presented in section four. Lastly, section five concludes the study.

2. Literature Review:

2.1 Theories on capital structure:

The theoretical principles underlying the capital structure, financing and lending choices of firms can be described either in terms of a static trade-off choice or pecking order framework. The static trade-off choice encompasses several aspects, including the exposure of the firm to bankruptcy and agency cost against tax benefits associated with debt use.

Bankruptcy cost is a cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. One of the bankruptcy costs is liquidation costs, which represents the loss of value as a result of liquidating the net assets of the firm. This liquidation cost reduces the proceeds to the lender, should the firm default on finance payments and become insolvent. Given the reduced proceeds, financiers will adjust their cost of finance to firms in order to incorporate this potential loss of value. Firms will, therefore, incur higher finance costs due to the potential liquidation costs (Cassar and Holmes, 2003).

Another cost that is associated with the bankruptcy cost is distress cost. This is the cost a firm incurs if non-lending stakeholders believe that the firm will discontinue.

If a business is perceived to be close to bankruptcy, customers may be less willing to buy goods and services due to the risk of a firm not being able to meet its warranty obligations. In addition, employees might be less inclined to work for the business and suppliers less likely to extend trade credit. These stakeholders' behavior effectively reduces the value of the firm. Therefore, firms which have high distress cost would have incentives to decrease debt financing so as to lower these costs. Given these bankruptcy costs, the operating risk of the firm would also influence the capital structure choice of the firm because firms which have higher operating risk would be exposed to higher bankruptcy costs, making cost of debt financing greater for higher risk firms. Research has found that high growth firms often display similar financial and operating profiles (Hutchinson and Mengersen, 1989). Debt financing may also lead to agency costs. Agency costs are the costs that arise as a result of a principal-stakeholder relationship, such as the relationship between equity-holders or managers of the firm and debt holders. Myers and Majluf (1984) showed that, given the incentive for the firm to benefit equity-holders at the expense of debt holders, debt-holders need to restrict and monitor the firm's behavior. These contracting behaviors increase the cost of capital offered to the firm. Thus, firms with relatively higher agency costs due to the inherent conflict between the firm and the debt-holders should have lower levels of outside debt financing and leverage.

Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. This benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after-tax proceeds to the owner. The theory among other things predicts a positive relationship between tax and leverage.

The pecking order theory suggests that firms have a particular preference order for capital used to finance their businesses (Myers, 1984). Owing to the presence of information asymmetries between the firm and potential financiers, the relative costs of finance vary between the financing choices. Where the funds provider is the firm's retained earnings, meaning more information than new equity holders, the new equity holders will expect a higher rate of return on capital invested resulting in the new equity finance being more costly to the firm than using existing internal funds. A similar argument can be provided between the retained earning and new debt-holders. In addition, the greater the exposure to the risk associated with the information asymmetries for the various financing choices besides retained earnings, the higher the return of capital demanded by each source. Thus, the firm will prefer retained earnings financing to debt, short-term debt over long-term debt and debt over equity.

2.2. Firms' Performance and Capital Structure:

The agency cost theory is premised on the idea that the interests of the company's Managers and its shareholders are not perfectly aligned. In their seminal paper Jensen and Meckling (1976) emphasized the importance of the agency costs of equity incorporate finance arising from the separation of ownership and

control of firms whereby managers tend to maximize their own utility rather than the value of the Firm. Agency costs can also exist from conflicts between debt and equity investors. These conflicts arise when there is a risk of default. The risk of default may create What Myers (1977) referred to as an “underinvestment” or “debt overhang” problem.

Zertun and Tian (2007) investigated the effect which capital structure has had on corporate performance using a panel data sample representing of 167 Jordanian companies during 1989- 2003. The study showed that a firm’s capital structure had significantly negative impact on the firm’s performance measures, in both the accounting and market’s measures.

Ebaid (2009) investigates the impact of capital structure choice on performance of 64 firms from 1997 to 2005 in the Egyptian capital market. He employs three accounting-based measures; including ROA, ROE and gross profit margin, and concludes capital structure choices, generally, has a weak-to-no impact on firm performance.

Razak. and Aliahmed, (2008) examines the impact of an alternative ownership control structure of corporate governance on firm performance among government linked companied (GLCs) and Non –GLC in Malaysia, The study was based on a sample of 210 firms over period from 1995 to 2005. Findings appear that there is a significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non- duality, leverage and growth. The finding is off significant for investors and policy marketers which will serve as a guide for better investment decision.

King & Santor (2008) had been done to examine the linkage between family ownership, firm performance and capital structure on Canadian firms. Based on Tobin’s ratios, the result shows that self- supporting family who owned firms with a single share class have similar market performance compared to other firms, superior accounting performance based on ROA, and higher financial leverage based on debt- to- total Assets. Comparatively, family owned firms whichus- (dual- class shares) have valuations that are lower by 17% on average relative to broadly held firms, even though having similar ROA and financial leverage.

San and Heng (2011) focused on construction companies which are listed in Main Board of Bursa Malaysia from 2005-2008, the result shows that there is a relationship between capital structure and corporate performance and there is also evidence that shows that no relationship between the variables have been investigated. For big companies, ROC with DEMV and EPS with LDC have positive relationship whereas EPS with DC is negatively related.

Saedi and Mahmoodi (2011) the study examines the relationship between capital. Structure and firm performance the study used sample of 320 firms listed on Tehran Stock exchange over the period 2002- 2009. Expect all of the financial companies and banks, the study uses four performance measures (including ROA, ROE, EPS and Tobin’s Q) as dependent variable and three capital structures (including long- term debt short – term debt and total debt ration) as independent variable. The study indicated that firm performances, which is measured by EPS and Tobin’s Q, is significantly and positively associated with capital structure, while reported a negative relation between capital structure and ROA, and no significant relationship between ROE and Capital structure.

Research Pratheepkanth, (2011) analyzed the capital structure and its impact on financial performance capacity during 2005 to 2009 of Business companies in Sri Lanka. The results shown the relationship between the capital structure and financial performance is negative.

However, the results of examining the relationship between financing choices and performance are mixed and the question of capital structure’s impact on performance still holds well and empirical study continues. Moreover, empirical studies in this regard are mostly conducted in the mature capital markets and there are a few researches in the emerging market, especially in Iran. Therefore, it is important to explore the relationship between capital structure and firm performance in an emerging market, namely Iran.

3. Estimation Method:

3.1. Data Sources:

The sample of the present study consists of 85 Iranian companies listed in Tehran Stock Exchange (TSE). These companies belong to Pharmaceutical, Cement, Machinery & equipment and electrical equipment sector. Companies were selected on the basis of availability of information necessary for conducting the study and the readiness of Annual Reports of the financial year 2006-2011.

3.2. Empirical Model and Proxies Variables:

The purpose of this paper is to empirically investigate the impact of capital structure on firm performance. The study used Accounting and market measures of performance the accounting Measures for measuring the performance, The study used more than one proxy for accounting and market to measure the performance, The researcher used the proxy ROA and, ROE as accounting performance measure while Tobin’s Q, EPS and MBVR are used to measure the market performance of firms. All these variables reflect the dependent variable as follow:

3.3. Dependent Variable:

Performance:

Literature uses a number of different measures of firm’s performance, these measures include accounting-based measures calculated from firm’s financial statements such as ROE, ROA, and GM (e.g. Majumdar and Chhibber, 1999; Abor, 2005) market based measures such as stock returns and volatility (Welch, 2004), Tobin’s Q measure which mixes market values with accounting values (Zeitun and Tian, 2007), Both accounting-based and Tobin’s Q measures (e.g. Abor, 2007), and other measures such as profit efficiency, i.e. frontier efficiency computed using a profit function (Berger and Bonaccorsi di Patti, 2006). This study uses four of common accounting-based performance measures to evaluate the firm’s performance, these measures are: ROA, ROE, MBVR, EPS and Tobin’s Q.

ROA; the return on assets: is calculated by dividing net income plus interest expenses with total assets

ROE; return on equity: is another profitability ratio that is defined by dividing net income by equity ROA and ROE were chosen because they are important accounting-based and widely accepted measures of financial performance. ROA can also be viewed as a measure of management’s efficiency in utilizing all the assets under its control, regardless of source of financing. Some writers such as Bettis and Hall (1982), Demsetz and Lehn (1985), Habib and Victor (1991), Gorton and Rosen (1995), Mehran (1995), Ang, Cole and Line (2000), Margaritis and Psillaki (2006), Rao *et al* (2007), Zeitun and Tian (2007) among others, made use of ROA and ROE as performance proxies in their studies.

MBVR; Market value of equity/ Book value of equity;

EPS; which indicates how much earning is created on per share, is calculated by dividing net income to the average number of common shares outstanding.

Tobin’s Q introduced by Tobin as an appropriate performance measure in 1969 and is defined as follows:

Tobin’s Q= Market value of equity+ book value of debt/ book value of assets

3.4. Independent Variable:

Four different independent were used in the analysis. The independents variables used to test the hypotheses were firm- level leverage, which is computed as:

SDTA: Short-term debt / total assets.

LDTA: Long- term debt / total assets.

TDTA: Total debt / total assets.

TDTQ: Total debt / total equity.

The study used multiple regression analysis to test the fifth dependent variable with the fourth independent variables, so the result of the study estimates the following regression models.

$$Y_{ROE} = \beta_0 + \beta_1 SDTA + \beta_2 LDTA + \beta_3 TDTA + \beta_4 TDTQ \quad (1)$$

$$Y_{ROA} = \beta_0 + \beta_1 SDTA + \beta_2 LDTA + \beta_3 TDTA + \beta_4 TDTQ \quad (2)$$

$$Y_{EPS} = \beta_0 + \beta_1 SDTA + \beta_2 LDTA + \beta_3 TDTA + \beta_4 TDTQ \quad (3)$$

$$Y_{MBVR} = \beta_0 + \beta_1 SDTA + \beta_2 LDTA + \beta_3 TDTA + \beta_4 TDTQ \quad (4)$$

$$Y_Q = \beta_0 + \beta_1 SDTA + \beta_2 LDTA + \beta_3 TDTA + \beta_4 TDTQ \quad (5)$$

4. Analysis and results:

Descriptive Statistics:

Table 1 presents a summary of descriptive statistics of the dependent and independent variables used in the study. Descriptive statistics shown in Table 2 refer to two important indicators. First, the mean of ROA and ROE are 0.2764 and 0.954 respectively. These results suggest that Iranian listed firms have relatively poor performance during the test period (2006-2011) with respect to ROA, ROE. Mean of the Tobin’s Q (1.52) is greater than one which revealed the market value of listed companies in the TSE is greater than their book values. Also, mean of MBVR (1.261) greater than one this indicates that the share price overvalued.

Table 1: Summary Statistics of the Explanatory Variables, 2006-2011

	Mean	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum
SDTA	0.6811	0.1514	-0.561	0.492	0.1612	0.9810
LDTA	0.0433	.0400	1.525	4.125	0.0056	0.2041
TDTA	0.7244	0.1541	-0.213	0.352	0.1756	1.121
TDTQ	3.742	4.641	4.652	11.201	0.2234	3.452
ROE	0.2764	0.3651	3.512	20.652	-2.102	3.289
ROA	0.0954	.0546	0	4.356	-1.004	0.3854
EPS	3.541	1.346	.036	14.598	-1.051	3.548
MBVR	1.261	0.6521	-3.103	3.964	0.2581	3.645
Q	1.524	0.6452	1.526	4.718	0.2451	6.467
			1.652			

Second, as shown in Table 1 the mean value of ratio of TDTA to total assets is 0.7244 this result suggests that about 72 percent of total assets of Iranian listed firms are financed by debt, this is consequently suggests that Iranian listed firms operate with high level of financial leverage. The mean of ratio of SDTA to total assets and ratio of LDTA to total assets are 0.6811 and 0.0433 respectively; these results suggest that Iranian listed firms depend on SDTA for financing their operation more largely than LDTA. The considerable dependence on SDTA by Iranian listed firms rather than LDTA could be a result of the absence of an established public debt market, so the only long-term source of financing available to Iranian listed firms is direct borrowing from banks, but this source is difficult to attained in light of very restrictive debt covenants faced by these firms.

Table 2: Correlation Matrix of the Explanatory Variables, during 2006-2011

	SDTA	LDTA	TDTA	TDTQ	ROE	ROA	EPS	MBVR	Q
SDTA	1								
LDTA	0.291**	1							
TDTA	0.563**	0.425**	1						
TDTQ	0.489**	0.416**	0.534**	1					
ROE	0.110	0.096	0.109	0.365**	1				
ROA	-0.536**	-0.402**	-0.646**	-0.556**	-0.0075	1			
EPS	-0.377**	-0.316**	-0.479**	-0.596**	-0.246*	0.612**	1		
MBVR	0.477**	0.111	0.288**	0.305**	0.289**	-0.260**	-0.421**	1	
Q	0.321**	0.082	0.276**	0.285**	0.255*	-0.371**	-0.535**	0.106	1

Table 2, establish according to Pearson Matrix it shows the correlation between the explanatory variables. The results show that there is a strong negative correlation (-0.64%) between TDTA and ROA. The table shows a strong correlation between most independent variables and dependent variables. To determine the impact of the independent variables on the dependent variables the study used Multiple Linear Regression, as follow: First model: to estimate the regression model between ROE and independent variables.

Table 3: MLR between ROE & Independent Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.421	0.152	3.412	0.000
SDTA	6.584	5.632	2.512	0.006
LDTA	6.120	5.123	2.324	0.001
TDTA	-5.468	5.871	-1.210	0.215
TDTQ	0.125	0.098	3.671	0.000
R-squared	0.352			
Adjusted R-square	0.334			
Durbin-Watson stat	1.856			
F-value	9.420			
Prob(statistic)	0.000			

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The result of the MLR analysis shows that the correlation between ROE and TDTA is not significant, while it is significant with other variables. The independent variables are reasonable related with ROE based on the Adjusted R-square value (33%). The results are not consistent with Ebaid (2009) and Saeedi & Mahmoodi, (2011) who found that none of capital structure has a significant relationship with firm performance when measured by ROE.

In reference to the Durbin-Watson stat $dL \leq d \leq dU$ used in the investigation of the accuracy of the correlation model as the following: $1.5 \leq 1.856 \leq 2.5$

According to this result this model is applicable. The final model will be:

$$Y_{ROE} = 0.421 + 6.584 SDTA + 6.120 LDTA + 0.125 TDTQ$$

Table 4: MLR between ROA & Independent Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.365	0.110	5.684	0.000
SDTA	3.546	1.221	3.652	0.074
LDTA	3.689	1.324	3.548	0.121
TDTA	-3.221	1.652	-2.333	0.000
TDTQ	-0.276	0.084	-2.289	0.000
R-squared	0.682			
Adjusted R-square	0.664			
Durbin-Watson stat	1.611			
F-value	35.245			
Prob(statistic)	0.000			

The result of the MLR analysis shows that the correlation between ROA and (SDTA, LDTA) are not significant, while it is significant with other variables.

The independent variables are extremely related with ROA based on the Adjusted R-square value (66.4%). These findings are consistent with Karadeniz *et al.* (2009), Chakraborty (2010), Saeedi & Mahmoodi (2011) reports a negative relationship between performance and capital structure.

In reference to the Durbin-Watson stat $dL \leq d \leq dU$ used in the investigation of the accuracy of the correlation model as the following: $1.5 \leq 1.611 \leq 2.5$

According to this result this model is applicable. The final model will be:

$$Y_{ROA} = 0.365 + -3.221TDTA -0.276TDTQ$$

Table 5: MLR between EPS & Independent Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.542	0.268	3.632	0.000
SDTA	7.325	5.962	2.652	0.251
LDTA	7.461	5.854	2.541	0.253
TDTA	-5.682	5.651	-1.252	0.000
TDTQ	-0.296	1.201	-3.251	0.000
R-squared	0.452			
Adjusted R-square	0.440			
Durbin-Watson stat	2.210			
F-value	18.652			
Prob(statistic)	0.000			

This model tests the relationship between EPS & independent variables. The result of the MLR analysis shows that the correlation between EPS & (SDTA, LDTA) independent variables are not significant. The independent variables are reasonably related with EPS based on the Adjusted R-square value (44%). These findings are not consistent with Frank & Goyal (2003), Berger & Bonaccors di Patti (2006) who indicates a positive relationship between capital structure and performance.

In reference to the Durbin-Watson stat $dL \leq d \leq dU$ used in the investigation of the accuracy of the correlation model as the following: $1.5 \leq 2.210 \leq 2.5$

According to this result this model is applicable. The final model will be:

$$Y_{EPS} = 0.542 - 5.682 TDTA - 0.296 TDTQ$$

Table 6: MLR between MBVR & Independent Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.341	0.235	3.251	0.000
SDTA	6.584	3.256	2.452	0.000
LDTA	6.852	3.652	2.652	0.000
TDTA	-5.698	3.451	-2.555	0.143
TDTQ	0.112	0.087	1.352	0.009
R-squared	0.200			
Adjusted R-square	0.185			
Durbin-Watson stat	1.853			
F-value	8.439			
Prob(statistic)	0.000			

The result of the MLR analysis shows that the correlation between MBVR and TDTA is not significant, while it is significant with other variables. The independent variables are barely related with MBVR based on

the Adjusted R-square value (18.5%). These findings are consistent with Hadlock and James (2002) who indicate a positive relationship between capital structure and performance.

In reference to the Durbin-Watson stat $dL \leq d \leq dU$ used in the investigation of the accuracy of the correlation model as the following: $1.5 \leq 1.853 \leq 2.5$

According to this result this model is applicable. The final model will be:

$$Y_{MBVR} = 0.341 + 6.584 SDTA + 6.852 LDTA + 0.112 TDTQ$$

Table 7: MLR between Tobin's Q & Independent Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	2.562	0.231	3.652	0.000
SDTA	6.854	3.521	2.541	0.002
LDTA	6.954	3.256	2.521	0.252
TDTA	-5.658	3.651	-1.874	0.145
TDTQ	1.320	0.010	2.235	0.001
R-squared	0.214			
Adjusted R-square	0.182			
Durbin-Watson stat	1.689			
F-value	9.541			
Prob(statistic)	0.000			

The result of the MLR analysis shows that the correlation between Tobin's Q & (LDTA,TDTA) are not significant, while it was significant STDA and TDTQ. The independent variables are barely related with Tobin's Q based on the Adjusted R-square value (18.2%). These finding are consistent with Saeedi & Mahmoodi (2011) who report a positive relationship between Tobin's Q and capital structure.

In reference to the Durbin-Watson stat $dL \leq d \leq dU$ used in the investigation of the accuracy of the correlation model as the following: $1.5 \leq 1.689 \leq 2.5$

According to this result this model is applicable. The final model will be:

$$Y_{Tobin's Q} = 2.562 + 6.854 SDTA + 1.320 TDTQ$$

5. Conclusions:

The purpose of this paper is to empirically investigate the impact of capital structure on firm performance. Multiple regression analysis is used in the study in estimating the relationship between the leverage level and firm's performance. Using four of accounting-based measures of financial performance (i.e. return on equity (ROE), return on assets (ROA), market value of equity to the book value of equity (MBVR), Tobin's Q), and based on a sample of non-financial Iranian listed firms from 2006 to 2011. Analysis is conducted using MLR regression analysis, the study interprets accounting and market measures as a proxy for the performance, the analysis determines the impact of leverage level on each of these measures. Our results indicate that firm performance which is measured by (EPS & ROA) are negatively related to capital structure. These findings are not consistent with Champion (1999), Gosh *et al.* (2000), Hadlock and James (2002), Frank and Goyal (2003) and Berger and Bonaccors di Patti (2006) who revealed a positive relation between firm performance and capital structure, while are consistent to Rajan and Zingales (1995), Zeitun and Tian (2007) and Abor (2007) who indicate firm performance is negatively related to capital structure. Moreover the independent variables are extremely related with ROA based on the Adjusted R-square value (66.4%).

REFERENCES

Abor, J., 2005. " The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana ", *Journal of Risk Finance.*, 6: 438-47.

Abor, J., 2007. " Debt policy and performance of SMEs: evidence from Ghanaian and South Africa firms", *Journal of Risk Finance*, 8: 364-79.

Saeedi, Ali. and Mahmoodi, Iman, 2011. "Capital Structure and Firm Performance: Evidence from Iranian Companies", *International Research Journal of Finance and Economics*.

Arbabiyan, Ali-Akbar and Safari, Mehdi, 2009. " The effects of capital structure and profitability in the listed firms in Tehran Stock Exchange", *Journal of Management Perspective*, 33: 159-175.

Berger, A. and E. Bonaccorsi di Patti, 2006. " Capital structure and firm performance: a new approach to testing agency theory and an application to the banking industry", *Journal of Banking and Finance*, 30: 1065-102.

Booth, L., V. Aivazian, A. Hunt, D. Maksimovic, 2001. "Capital structure in developing countries", *Journal of Finance*, 56: 87-130.

- Chakraborty, I., 2010. "Capital structure in an emerging stock market: The case of India", *Research in International Business and Finance*, 24: 295-314.
- Deesomask, R., K. Paudyal and G. Pescetto, 2004. The determinants of capital structure: Evidence from the Asia Pacific region, *Journal of Multinational Financial Management*, 14(4-5): 387-405.
- Ebaid, E.I., 2009. "The impact of capital-structure choice on firm performance: empirical evidence from Egypt", *The Journal of Risk Finance*, 10(5): 477-487.
- Frank, M. and V. Goyal, 2003. "Testing the pecking order theory of capital structure", *Journal of Financial Economics*, 67: 217-48.
- Ghosh, C., R. Nag, C. Sirmans, 2000. "The pricing of seasoned equity offerings: evidence from REITs", *Real Estate Economics*, 28: 363-84.
- Hadlock, C. and C. James, 2002. "Do banks provide financial slack?" *Journal of Finance*, 57: 1383-420.
- Hadlock, C., C. James, 2002. "Do banks provide financial slack?", *Journal of Finance*, 57: 1383-420.
- Harris, M., A. Raviv, 1988. "Corporate control contests and capital structure", *Journal of Financial Economics*, 20: 55-86.
- Hovakimian, A., T. Opler, S. Titman, 2001. The debt-equity choice. *Journal of Financial and Quantitative Analysis*, 36(1): 1-24.
- Huang, S. and F. Song, 2006. "The determinants of capital structure: evidence from China", *China Economic Review*, 17(1): 14-36.
- Karadeniz, E., S.Y. Kandir, M. Balcilar and Y.B. Onal, 2009. Determinants of capital structure: evidence from Turkish lodging companies. *International Journal of Contemporary Hospitality Management*, 21(5): 594-609.
- King, M.R. & E. Santor, 2008. "Family values: Ownership structure, performance and capital structure of Canadian firms", *Journal of Banking & Finance*, 32: 2423-2432.
- Modigliani, F.F. & M.H. Miller, 1963. Corporation income taxes and the cost of capital: a correction. *American Economic Review*, 53(3): 433-443.
- Myers, S., 1984. "The capital structure puzzle", *Journal of Finance*, 39: 575-592.
- Myers, S.C. and N.S. Majluf, 1984. "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, 13(2): 187-221.
- Ong Tze San and Boon Heng The, 2011. "Capital Structure and Corporate Performance of Malaysian Construction Sector". *International Journal of Humanities and Social Science*, 1(2): 28-36.
- Puwanenthiren Pratheepkanth, 2011. "Capital Structure and Financial Performance: Evidence from Selected Business Companies in Colombo Stock Exchange Sri Lanka", *Journal of Arts, Science & Commerce*.
- Razak, N.H.A., R. Ahmad, & H.J. Aliahmed, 2008. "Government ownership and performance: An analysis of listed companies in Malaysia", *Corporate Ownership and Control*, 6(2): 434-442.
- Saad, N.M., 2010. "Corporate Governance Compliance and the Effects to capital Structure". *International Journal of Economics and Financial*, 2(1): 105-114.
- Tang, C.H. and S.S. Jang, 2007. "Revisit to the determinants of capital structure: a comparison between lodging firms and software firms", *International Journal of Hospitality Management*, 26(1): 175-87.
- Zeitun, R. and G. Tian, 2007. "Capital structure and corporate performance: evidence from Jordan", *Australasian Accounting Business and Finance Journal*, 1: 40-53.