THE IMPACT OF CAPITAL STRUCTURE AND CERTAIN FIRM SPECIFIC VARIABLES ON THE VALUE OF THE FIRM: EMPIRICAL EVIDENCE FROM KUWAIT

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Abstract

The main objective of this study is to empirically examine the impact of leverage and certain firm-characteristics that are believed to have significant effects on the decision to use debt and on the value of the firm. The sample is composed of 48 companies listed in the Kuwait Stock Exchange (KSE) representing four different sectors. The study uses actual and historical panel data set obtained from the published annual reports of individual firms in addition to the publications of KSE. The study was accomplished using 8 years of data with a total of 239 observations representing the study period 2006-2013. The study uses descriptive statistics, correlation, and multiple-regression analyses to examine the impact of explanatory variables on the value of the firm. The study findings lead to the conclusion that capital structure (leveraging) is the most influential factor on firm's value. Business risk, previous year's value (one-year lagged ROA), dividends payout ratio, size, growth opportunities and liquidity of the firm are found to have significant influence on the firm's value in Model 1 (where ROA is used as a proxy for the value of the firm). In model 2 (i.e., where ROE is used as a proxy of the firm's value), the findings reveal that capital structure (leveraging); firm's size, growth opportunities and liquidity of the firm are significant influential of the firm's value. The study is valuable to academicians, finance managers, policy makers and other stakeholders as it fills the gap of literature by providing up-to-date evidence of the impact of capital structure and other firm specific variables on the value of the firm in Kuwait.

Keywords: Capital Structure, Firm Value, Kuwait Stock Exchange (KSE)

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1. Introduction

The relationship between capital structure and firm value has been a discussed in the previous studies regionally and globally. In theory, the relationship between both predict either positively, negatively as stated in the previous studies conducted in this regards. For instance, Modigliani and Miller (1963), (Ross 1977, and Leland and Pyle 1977) Rajan and Zingales (1995), Imad Ramadan (2015) Chowdhury and Chowdhury (2010) ElKelish and Andrew (2007), Booth et al. (2001). However, in the same context for other theories such as the trade –off theory (Myers,1984), pecking order theory (Myers and Majluf,1984) and agency cost theory (Jensen and Meckling, 1976) argue that if capital structure decision is irrelevant in a perfect market, then, imperfection which exist in the real world may be adduce for its relevance (Maxwell & Kehinde, 2012).

The objective of this paper is to investigate the relationship between the capital structure and firm values in Kuwait exchange Market, the market value of the firms may be affected by the capital structure decision as discussed in the previous studies. Therefore, the research question is, Does the capital structure of listed firms in Kuwait Exchange Market affect its market value?

The structure of the paper is as follows. In next section, we discuss what others have done in this regards, reviewing briefly some of the previous studies conducted regionally and globally as well as the main underline theory which is MM theory. And then discussing Methodological framework, The Study Hypotheses, The study model, Research results and discussion including descriptive statistics, correlation Analysis, regression Analysis, and Conclusion of the work research.

2. Literature review

Prior studies on the capital market made tremendous efforts to ensure practical and theoretical aspects of the capital structure. Capital structure is a term used in corporate finance to describe the mix of a company's long-term debt, some short-term debt, common and preferred equity. The capital structure refers to how a

company finances its operations and its growth by using various accessible sources of funds. When people refer to capital structure they are most likely referring to a firm's debt-to-equity ratio, which provides insight into how risky a company is.

Decisions concerning the right hand side of the balance sheet of the firm (liabilities and stockholders' equity) result in a given capital structure of the firm. Sub optimal financing decisions, mostly, could lead to corporate failure. The objective of all financing decisions is wealth maximization and the immediate way of measuring the quality of any financing decision is to examine the effect of such a decision on the firm's performance (Mwangi L. et al, 2014).

The term financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It is also used as an overall measure of a company's financial health over a particular period of time.

To evaluate the financial performance of a company, one should use financial analysis to assessing the firm's profitability, leverage, solvency, and operational efficiency. The challenge is to know which ratios to choose and how to interpret the results. Operating income, cash flow from operations, and total unit sales can also be used to measure the financial performance of any firm.

Financial leverage is a term used to refer to the usage of debt to finance activities and acquire additional assets in order to increase the expected return on equity. It is measured by dividing total debt by total assets or total debt by total debt and equity. Highly leveraged firms are those using more debt than equity. However, the presence of fixed cost of fund pertinent to financial leverage may add to the volatility of cash flows and, thus, net income especially when operating income is falling. Hence, leverage, increases the company's risk of bankruptcy.

Capital structure decision is a crucial decision in corporate finance for almost all enterprises in the world. It is mainly consisted of debt and equities with proportions differ between firms based on many factors and variables. Both types of financing carry costs though they have their own benefits. Advantages to using debt vary; it provides tax shield as the interest rate paid as a cost of debt is normally tax deductible; it is not dilutive from shareholders standpoint; the cost of debt is generally less than that of equity to the firm. However, using debt financing increases the companies risk level (financing risk). Also, the borrowing firm has to meet loan covenants. In addition, assets may be taken as collateral and agency cost between creditors and shareholders may increases. The risk to shareholders is generally more than that to lenders as payment of debt is required by law irrespective of a company's profitability.

Financial managers as well as some other stakeholders (investors and policy makers) of all firms around the globe conceivably will want to know the proper mix of debt and equity (capital structure) that maximizes the firms' performance. They may need to know the factors that influence the capital structure of their firms. They need to measure the influence of changing the capital structure of the firm on the profitability or the financial performance of their firm. In particular, they need to identify the relationships between financing decisions and the company performance. This may vary by country, by business environment, by sector, by company, or even by time. The risk to shareholders is greater than to lenders, since payment on debt is required by law regardless of a company's profit margins (Mwangi, L. et al, 2014). Other factors also may influence the company's performance given the unique characteristics of certain economies. The findings of this study may make a contribution to the body of knowledge in this regard.

This paper examines the effect of capital structure on the market value in Kuwait. The review of the literature shows that only a few researchers have been conducted to examine the impact of capital structure on the market value in GCC, but no studies have been conducted to examine the impact of capital structure on the market value in Kuwaiti market.

In the international context for instance, study conducted by Sunder and Myers (1999) one of the most prominent theory is the static tradeoff theory which proposed that, there is a target level of debt-to equity ratio, in which the present value of tax benefits would equal the financial distress cost (bankruptcy risk).

Furthermore, does the capital structure affect its market value of the firms?
In theory, no according to Modigliani-Miller, assuming no transactions costs and taxes, etc. but in practices could be quite different. However, changes in capital structure can lead to change in market price. The change in the market can depend on a wide range of factors such as market mood, expectations of the market, and market needs.

2.1 Research questions

Based on the above discussions, the followings are the research questions that this study seeks to answer:

1. Does the capital structure of listed firms in Kuwait affect its market value?
2. What is the type of the relationship between the capital structures and market value (i.e., positive or negative)?
3. What is the strength and intensity of the relationship between the capital structure and market value (i.e., significant or insignificant and at what level of significance)?

2.2 Research objectives

1. The aim of this study is to answer the research question; does the capital structure of listed firms in Kuwait affect its market value?

2. To examine the type of the relationship between the capital structures and market value (i.e., positive or negative)?
3. To examine how the capital structure negatively or positively influences the firm's market value in the financial & nonfinancial in Kuwait as well as the relationship between the capital structure and market value (i.e., significant or insignificant and at what level of significance)?

3. Methodological framework

To study the influence of capital structure (leverage) on the firm's value, this study examined 48 companies from multiple sectors of Kuwait Stock Exchange. The study sample was selected from four different sectors including manufacturing (industrial), services, basic materials, and oil and gas. Certain sectors like financial, real estate, and communications were excluded from the analysis as they are considered as either having special characteristics or having high leverage. The nonmanufacturing firms were selected randomly and based on the availability of data, whereas all industrial (manufacturing) firms were included in the sample. This is, of course, to avoid the sampling error resulted from mixing all the listed firms and also to increase the reliability of the study.

The panel data used for analysis was mainly collected from the published annual reports of 48 firms listed in the Kuwait stock exchange (KSE). Most of the selected firms were listed Kuwaiti while the remaining were non Kuwaiti companies. Some other financial data were obtained from information published by KSE. The actual financial data obtained embraces financial ratios including dividends to net profit ratio representing dividends policy of the firm, market price of the stock to its book value representing growth opportunities of the firm, total liabilities to total assets to represent leverage, total liabilities to total equities to represent liquidity position of the firm, natural logarithm of total assets to represent size of the firm, fixed assets to total assets ratio to represent tangibility of the firm. In addition the study uses firms age as a factor influencing the decision to use financing (capital structure) proxied by the number of years the firm is in business, and type of business which is used as a dummy variable where 0 denotes industrial and 1 denotes otherwise. The study also uses dummy variables to represent ownership structure where 1 signifies closely held companies and 0 signifies publicly held companies. These financial ratios and parameters were designed to aid the empirical model of the study and all were considered as independent variables and used as proxies for the capital structure decision of the firm. On the other hand, the study uses return on assets (ROA) and return on equity (ROE) as proxies of firm value. The 48 firms represent the sample of the study chosen from a population of 215 firms including non-Kuwaiti listed companies. A total of 239 after adjustments observations were obtained for the investigation covering the period of the study i.e., 2008 to 2013.

3.1 The Study Hypotheses

Yu-Shu Cheng et al. (2010) and Gill et al. (2011) use return on equity (ROE) to measure firm value, when studying the relationship between capital structure and firm value. Joshua Abor (2005) uses return on equity (ROE) to measure firm value when investigating the impacts of capital structure on profitability of US companies. ROE and EPS were used by Chien-Chung et al. (2008) to identify firm value. Imad Ramadan (2015) used ROA as a proxy for firm value when studying the association between leverage and the Jordanian Firms' Value. Some other studies such as those of Ben Naceur and Goaied (2002), Feng-Li and Chang (2008), use market-to-book-value ratio as a proxy for firm value. Earnings per share (EPS) and price earning ratio (P/E) were used as proxies for firm value by Mathanika et al (2015) in their study of the impact of capital structure on firm value in Srilanka. In addition, Chung and Pruitt (1994) and Feng-Li Lin (2010) use Tobin's q to measure firm value. This study uses both ROE and ROA as proxies for firm's value.

The independent variables used in this study include the debt ratio measured by total liabilities to total assets and used as a proxy for capital structure (leveraging or gearing). Other variables were used in this study include those that may have influence on the capital structure and thus on the value of the include dividend policy, firm's age, asset tangibility, firm's size, ownership structure, growth opportunities, business risk, liquidity, and type of industry.

Based on the above discussions and in order to explore the relationship between firms' value and of leveraging (capital structure) the following 10 null hypotheses are formulated and used for testing:

H1: There is no statistically significant relationship between firm's value and its leverage (capital structure).

H2: There is no statistically significant relationship between firm's value and its dividend policy.

H3: There is no statistically significant relationship between firm's value and its age.

H4: There is no statistically significant relationship between firm's value and its assets tangibility.

H5: There is no statistically significant relationship between firm's value and its size.

H6: There is no statistically significant relationship between firm's value and its ownership structure.

H7: There is no statistically significant relationship between firm's value and its growth opportunities.

H8: There is no statistically significant relationship between firm's value and its business risk.

H9: There is no statistically significant relationship between firm's value and its liquidity.

H10: There is no statistically significant relationship between firm's value and its type of industry.

3.2 The study model

This study uses multiple-regression model to test the association between firm's value and capital structure. Other control variables were also tested by the regression model comprising those that are believed to have influence on the decision to use debt financing or leveraging. The variables used in this study were determined based on the results reached by previous researches (prior studies) in addition to the availability of data.

The econometrics model used expresses the firm's value as a function of capital structure, dividend policy, age of the firm, tangibility of assets, size of the firm, ownership structure, growth opportunity, business risk of the firm, liquidity of the firm, and type of industry of the firm.

The actual panel data obtained is analyzed through OLS regression. Since the efficiency of the estimates can be improved and thus the collinearity of the explanatory factors can be reduced, a panel data is used. A panel data approach is according to Joshua Abor (2008) is more useful than either cross-section or time-series data alone.

A multiple regression model is employed in this study as the study has more than one independent variable.

The hypothesized independent variables include total liabilities to total assets ratio as a proxy for capital structure (leverage), dividends to net profit (DTNP) ratio as a proxy of dividend policy, number of years in business as a proxy of firm's age (FAGE), fixed assets to total assets (FATTA) ratio as a proxy of tangibility of assets, natural logarithm of total assets (LNTA) as a proxy for size of the firm, ownership structure (OWNS) measured by a dummy variables where 1 denotes closely held companies and 0 denotes publicly held companies, price per share to book value per share (PTBV)ratio as a proxy of growth opportunities of the firm, the standard deviations of ROE of the firm (SDROE) as a proxy of business risk of the firm, total liability to total equity ratio (TLTE) as a proxy for liquidity, and type of industry (TYPE) denoted by dummy variables where 0 signifies industrial (manufacturing) and 1 signifies otherwise.

The dependent variables used are return on Assets (ROA) for Model 1, and return on equity (ROE) for Model 2 measured by net income to total assets and net income to total stock holder's equity, respectively.

Following are the econometric regression models estimated to test the above-mentioned study hypotheses:

Firm's value=f (TLTA, DTNP, FAGE, FATTA, LNTA, OWNS, PTBV, SDROE, TLTE, TYPE)

$$ROA_{i,t} = \beta_0 + \beta_1 TLTA_{i,t} + \beta_2 DTNP_{i,t} + \beta_3 FAGE_{i,t} + \beta_4 FATTA_{i,t} + \beta_5 LNTA_{i,t} + \beta_6 OWNS_{i,t} + \beta_7 PTBV_{i,t} + \beta_8 SDROE_{i,t} + \beta_9 TLTE_{i,t} + \beta_{10} TYPE_{i,t} + \varepsilon \quad (1)$$

$$ROE_{i,t} = \beta_0 + \beta_1 TLTA_{i,t} + \beta_2 DTNP_{i,t} + \beta_3 FAGE_{i,t} + \beta_4 FATTA_{i,t} + \beta_5 LNTA_{i,t} + \beta_6 OWNS_{i,t} + \beta_7 PTBV_{i,t} + \beta_8 SDROE_{i,t} + \beta_9 TLTE_{i,t} + \beta_{10} TYPE_{i,t} + \varepsilon \quad (2)$$

Where:

TLTA i, t = Total liability to total assets ratio representing leverage or debt ratio of firm i in time t

β_0: The intercept or constant amount

β_1 - β_{10} = Coefficients of the explanatory variables

$DTNP_{i,t}$ = Dividends to net profit ratio to represent dividend policy of firm i in time t

$FAGE_{i,t}$ = Number of years since the firm is in business to represent Age of firm i in time t

$FATTA_{i,t}$ = Fixed assets to total assets ratio to represent tangibility of assets for firm i in time t

$LNTA_{i,t}$ = Natural logarithm of total assets to represent the size of firm i in time t

$OWNS_{i,t}$ = Dummy variables (0, 1) to represent ownership structure for firm i in time t

$PTBV_{i,t}$ = price per share to book value per share to measure growth opportunities of firm i in time t

$SDROE_{i,t}$ = Standard deviations of ROE to represent business risk of firm i in time t

$TLTE_{i,t}$ = Total liquidity to total equity ratio to represent liquidity of firm i in time t

$TYPE_{i,t}$ = Dummy variables (0, 1) to represent industry type of firm i in time t

ε: the error term

4. Research results and discussion

The following sections represent the study findings. In addition to the descriptive statistics, the findings include the correlation and regression analyses.

4.1 Descriptive statistics

Table (1) shows the descriptive statistics for the study variables. It shows Mean, Maximum, Minimum, Standard deviation, Skewness statistics, kurtosis,

Jarque-Bera and probability for each of the dependent and independent variables.

The average (Mean) leverage (TLTA) ratio, as can be seen in the Table, equals 36.6% which implies that firms in Kuwait in general and in the sample of the study in particular are not highly leveraged. The maximums and minimums show the ultimate highest and lowest values of the study variables.

The low standard deviation values for most variables indicate that most of the firms are in the same range of value, leverage, dividends payout, growth opportunities, ownership structure, riskiness, tangibility and type, but not the firms' age and liquidity as the standard deviations values of these two is quite high (11.528 and 9.604) respectively.

Table (1) shows that Skewness is positive for 8 out of 12 series indicating that fat tails on the right hand side of the distribution. Positive and negative signs of skewness values indicate that the results of this study are generally not normally distributed. Since values of kurtosis are deviated from 3, Kurtosis values show also that data is not normally distributed. To test for the normality of data the study uses Jarque-Bera statistics and its corresponding probability (probability). Based on these values the normality assumption is rejected at significance level of 1% (probability is less than or equal to 0.01) for all the variables except the size variable (LNTA) which shows a probability of (0.56).

Table 1. Descriptive Statistics

	ROA	ROE	TLTA	DTNP	FAGE	FATTA	LNTA	OWNS	PTBV	SDROE	TLTE	TYPE
Mean	0.026	0.067	0.366	0.370	27.00	0.280	11.12	0.31	1.1335	0.0927	1.576	0.393
Maximum	0.301	7.8081	0.990	2.460	53.00	1.012	14.39	1.00	4.900	5.847	148.2	1.000
Minimum	-0.397	-0.758	0.010	-6.098	5.000	0.000	8.52	0.00	-9.400	0.000	0.009	0.000
Std. Dev.	0.086	0.525	0.224	0.636	11.528	0.245	1.28	0.463	0.977	0.386	9.604	0.490
Skewness	-1.286	13.45	0.418	-3.687	-0.131	0.815	0.16	0.824	-4.555	14.01	14.98	0.437
Kurtosis	7.33	199.7	2.210	47.28	1.911	2.832	2.87	1.678	59.01	209.2	229.0	1.191
Jarque-Bera	252.	39243	13.17	20066	12.50	26.76	1.13	44.41	32069.	43118	5177	40.20
Probability	0.00	0.000	0.001	0.000	0.0019	0.000	0.56	0.00	0.000	0.000	0.000	0.000
Observations	239	239	239	239	239	239	239	239	239	239	239	239

4.2 Correlation Analysis

Utilizing E-views analysis tool, the study uses correlation to test for multicollinearity of the variables. Table 2 displays the correlating analysis of study variables. Besides the degrees of correlation (association) between each pair of variables, the table shows the sign or the direction of association (positive or negative).

The Table reveals that none of the study variables have multicollinearity problem with each other as they are all shown to be low correlated. This indicates that none of the variables will be excluded from further analysis.

Table 2. Correlation Matrix

	ROA	ROE	TLTA	DTNP	FAGE	FATTA	LNTA	OWNS	PTBV	SDROE	TLTE	TYPE
ROA	1.000											
ROE	0.167	1.000										
TLTA	-0.229	0.133	1.000									
DTNP	0.324	0.042	-0.191	1.000								
FAGE	0.044	0.123	0.1930	-0.0118	1.000							
FATTA	0.112	0.110	0.042	0.081	0.127	1.000						
LNTA	0.053	0.070	0.4295	0.0128	0.211	-0.084	1.000					
OWNS	0.160	-0.009	-0.082	0.034	0.334	0.041	-0.088	1.000				
PTBV	0.307	-0.590	-0.032	0.109	0.025	0.002	-0.083	0.131	1.000			
SDROE	-0.183	0.899	0.2031	-0.085	0.098	0.052	0.0299	-0.055	-0.696	1.000		
TLTE	-0.111	0.942	0.284	-0.058	0.144	0.076	0.100	-0.047	-0.676	0.966	1.000	
TYPE	-0.137	-0.062	0.447	-0.098	-0.108	-0.023	0.166	-0.095	0.101	-0.026	-0.017	1.000

The correlation matrix shows that DTNP, FAGE, FATTA, LNTA, OWNS, PTPV have positive relationships with ROA, which implies that the value of the firm represented by ROA increases as the values of dividend payout ratio, firms age, tangibility, size, ownership structure, and growth opportunities increase. The Table shows negative association between the value of the firm represented by ROA and each of TLTA, SDROE, TLTE, and TYPE, which indicates that the value of the firm decreases with an

increase in leverage, business risk, liquidity. It is also influenced negatively by the type of industry. The Table also shows positive relationships exist between ROE and each of TLTA, DTNP, FAGE, FATTA, LNTA, SDROE, and TLTE. This suggest that the value of the firm represented by ROE is positively influenced by using leverage, dividend payout ratio, age, size, business risk and liquidity of the firm. On the other hand the correlation matrix shows negative associations exist between ROE and each of OWNS, PTBV, and TYPE, which implies that, the value of the firm represented by ROE is negatively influenced by ownership structure, growth opportunities and type of industry of the firm.

4.3 Regression Analysis

The study uses multiple regression analysis to examine the effect of the independent variables on the value of the firm. The study uses return on assets (ROA) and return on equity (ROE) as proxies for firm value. ROA is used as a proxy for firm's value for Model 1 and ROE is used as a proxy of firm's value for Model 2.

Durbin-Watson statistics, p-value and adjusted R-squared were used by both models for decision-making criteria. To decide whether accept or reject the hypotheses, the study uses P-values (Prob.). The alternative hypothesis is accepted and the null hypothesis is rejected at 1% level of significance if the Prob. value is less than or equal to 0.01. Similarly, the alternative hypothesis is accepted at 5% and 10% level of significance if the P-value is less than or equal to 0.05 and 0.10 respectively.

The Adjusted R squared is used to measure goodness-of-fit that penalizes additional explanatory variables. The adjusted R squared value of 0.350524 s indicates that 35% of the variability of the value of the firm in Model 1 is explained by the independent variables.

To test for first order serial correlation in the errors of a regression model, the study uses Durbin-Watson Statistic method. Durbin-Watson helps in specifying the right combination of explanatory variables (Gujarati, 2004). It is also used to test the presence of autocorrelation in the residuals. The D-W statistic value of 1.865085 (very close to 2.0) indicates an absence of autocorrelation in model 1 and confirms that serial correlation is not existed. For such a number of observations, this indicates neither underestimation nor overestimation of the level of significance. The calculated F-statistic of 12.67721 at probability (F-value) of 0.0000 for the data regression (Model 1) indicates the null that all coefficients are simultaneously zero is rejected. This implies that the regression is generally significant.

Table 3 displays the regression results of the independent and the independent (predictors) variables. It shows the relationships (degrees of association) between ROA and each of the independent variables (i.e., ROA (-1), TLTA, DTNP, FAGE, FATTA, LNTA, OWNS, PTBV, SDORE, TLTE and TYPE).

Table 3. Regression results between ROA and the independent variables using Least Square Method (MODEL 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.099978	0.045879	-2.179167	0.0303
ROA(-1)	0.169761	0.062137	2.732070	0.0068***
TLTA	-0.124265	0.029963	-4.147275	0.0000****
DTNP	0.019692	0.007566	2.602494	0.0099***
FAGE	-0.000423	0.000452	-0.935767	0.3504
FATTA	0.023038	0.019116	1.205181	0.2294
LNTA	0.011423	0.004181	2.732342	0.0068***
OWNS	0.016330	0.010636	1.535370	0.1261
PTBV	0.033112	0.007064	4.687709	0.0000***
SDROE	-0.152349	0.057076	-2.669253	0.0082***
TLTE	0.008084	0.002383	3.391561	0.0008***
TYPE	-0.004140	0.010747	-0.385204	0.7004
R-squared	0.380542	**Mean dependent var**		0.026130
Adjusted R-squared	0.350524	**S.D. dependent var**		0.086267
S.E. of regression	0.069523	**Akaike info criterion**		-2.445426
Sum squared resid	1.097179	**Schwarz criterion**		-2.270876
Log likelihood	304.2284	**Hannan-Quinn criter.**		-2.375087
F-statistic	12.67721	**Durbin-Watson stat**		1.865085
Prob(F-statistic)	0.000000			

****, **, and *, signify 1%, 5% and 10% respectively.*

The Table shows ROA (-1) coefficient of 0.169761 is positive and statistically significant at 1% level with a p-value of 0.0068. This suggests that one-year-lagged ROA has a positive significant impact on

the value of the firm (represented by ROA). The Table also shows total liability to total equity (TLTA) coefficient of -0.124265 is negative and statistically significant at 1% level with a p-value of 0.0000. Therefore, the First hypothesis that there is no statistically significant relationship between firm's value and its leverage (capital structure) is rejected, and thus, the alternative hypothesis is accepted. The negative sign of the relationship (coefficient) suggests that an increase in debt ratio (leverage) decreases the value of the firm. This can be explained by the fact that high leverage implies higher bankruptcy cost (and risk) for low quality firms (Ross 1977, and Leland and Pyle 1977) and). This result is consistent with the research results of Kinsman and Newman (1998) who pointed out that firm can maximize its value by choosing low debt or zero debt. It is also consistent with the results of Rajan and Zingales (1995) and Imad Ramadan (2015) who found leverage to be significantly inversely correlated with the firm value. This result can also be explained by the views of Modigliani and Miller (1963) who proven that a firms cost of equity increases as debt increases. However, it is not consistent with the results of Chowdhury and Chowdhury (2010) who found leverage measured by long term debt to total assets ratio to have positive coefficient with firm's value. It is also not consistent with the results of ElKelish and Andrew (2007) who investigates the impact of financial structure on firm value in the United Arab Emirates and concluded that debt to equity ratio has no impact on the value of the firm. This result also contradicts with the irrelevance theory of Modigliani and Miller (1958) who postulate that there is no relationship between capital structure and firm's value in the perfect world.

Table 3 reveals that there is a significant positive relationship exists between ROA and the dividends payout ratio with level of significance of 1% and a p-value of 0.0099. Therefore, the Second hypothesis that there is no statistically significant relationship between firm's value and its assets tangibility is rejected and thus, the alternative hypothesis is accepted. The positive sign of the coefficient value of the firm and its payout ratio suggests that as dividends payout ratio increases, the value of the firm increases. This suggests that firms may increase their values through paying more dividends to their shareholders. This result comports with the research results of Chowdhury and Chowdhury, (2010) who found dividend payout ratio to have positive coefficient with the value of the firm in Bangladesh.

The empirical results reveal an insignificant negative association exists between firms age (FAGE) and ROA with a coefficient of -0.000423 and p-value of 0.3504. This implies that the Third hypothesis that there is no statistically significant relationship between firm's value and its age is accepted. This indicates that firm's age is not a significant factor in explaining firm's value when measured by ROA. This result is consistent with the research results of Bender and Ward (1993) who maintained that the capital structure could be affected by the firm's life stage, as financing needs could vary once firm's circumstances do. They also maintained that business risk decreases with the progress of the firm's age, allowing financial risk to increase, and thus the value of the firm to decrease. This result is also consistent with the research results of Frielinghaus et al. (2005) who concluded that mature companies have more debt in their capital structure.

The empirical results an insignificant positive association exists between tangibility of the firm proxied by fixed assets to total assets (FATTA) and the value of the firm as measured by ROA. This indicates that the Fourth hypothesis that there is no statistically significant relationship between firm's value and its assets tangibility accepted. This result is consistent with the research results of Imad Ramadan (2015) who find asset structure (measured by fixed assets to total assets) to be significantly positively correlated with the firm value expressed as ROA.

The Table also displays positive and significant relationship exists between ROA and Size of the firm measured by the natural logarithm of total assets (LNTA) at 1% level of confidence with a coefficient of 0.011423 and p-value of 0.0068. This means that the Fifth hypothesis that there is no statistically significant relationship between firm's value and its size is rejected and, thus, the null hypothesis is accepted. This result implies that the value of the firm increases as its size increases. This result is comports with the results of Imad Ramadan (2015) who find firm size to be significantly positively correlated with the firm value expressed as ROA. However, it is not consistent with the results of Booth et al. (2001) who concluded that profitability has an inverse relationship with debt level and size of the firm.

Ownership structure (OWNS) is revealed by the results to have positive and statistically insignificant association with ROA with a coefficient of 0.016330 and p-value of 0.1261. This means that the Sixth hypothesis that there is no statistically significant relationship between firm's value and its ownership structure is accepted. The positive sign of the relationship in this result indicates that closely held companies have more value than publicly held companies. However, this finding does not comport with the results of Chowdhury and Chowdhury, (2010) who found public shareholding to have negative impact on the value of the firm.

The empirical results show statistically significant positive relationship at 1% level exists between ROA and growth opportunities of the firm with p-value of (0.0086). Therefore, the Seventh hypothesis that there is no statistically significant relationship between firm's value and its growth opportunities is rejected and, thus, the alternative hypothesis is accepted. This suggests that firms with more growth opportunities have higher values than those with less growth opportunities. This finding is

consistent with the research results Imad Ramadan (2015) who find sales growth to be significantly positively correlated with the firm value expressed as ROA. However, it is does not comport with the results of Chowdhury and Chowdhury (2010) who found sales growth to have negative coefficient with the value of the firm.

Table 3, shows the coefficient of business risks, measured by the standard deviations of return on equity (SDROE), of -0.152349 is statistically insignificant at 10% level with p-value of 0.0082. Therefore the Eighth hypothesis that there is no statistically significant relationship between firm's value and its business risk is rejected and thus the alternative hypothesis is accepted. The negative sign of the coefficient of this result indicates that companies with high business risk have less value than those having less risk.

The results show that liquidity of the firm proxied by total liquidity to total assets (TLTA) is positive and statistically significant at 1% level with P-value of 0.0008. The positive association between these two variables implies that firms with higher liquidity have higher value. Therefore the Ninth hypothesis that there is no statistically significant relationship between firm's value and its liquidity is rejected and, thus, the null hypothesis is accepted.

The results also show type of industry of the firm (TYPE) has a negative and statistically insignificant relationship with ROA at 10% level and a p-value of 0.7004. This implies that type of industry is not a significant factor in influencing the value of the firm. Therefore the Tenth hypothesis that there is no statistically significant relationship between firm's value and its type of industry is accepted.

Table 4. Regression results between ROE and explanatory variables using Least Square Method (MODEL 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.106094	0.090078	-1.177799	0.2401
ROE(-1)	0.376295	0.069234	5.435107	0.0000***
TLTA	-0.377463	0.059263	-6.369301	0.0000***
DTNP	0.023899	0.014778	1.617172	0.1072
FAGE	-0.000844	0.000888	-0.950038	0.3431
FATTA	0.040573	0.037587	1.079455	0.2815
LNTA	0.014444	0.008200	1.761546	0.0795*
OWNS	0.016930	0.020832	0.812700	0.4172
PTBV	0.037401	0.014106	2.651445	0.0086***
SDROE	-0.015631	0.115181	-0.135711	0.8922
TLTE	0.058531	0.004741	12.34478	0.0000***
TYPE	0.023057	0.021205	1.087316	0.2781
R-squared	0.935548	**Mean dependent var**		0.066962
Adjusted R-squared	0.932425	**S.D. dependent var**		0.524892
S.E. of regression	0.136447	**Akaike info criterion**		-1.096855
Sum squared resid	4.226240	**Schwarz criterion**		-0.922305
Log likelihood	143.0742	**Hannan-Quinn criter.**		-1.026516
F-statistic	299.5451	**Durbin-Watson stat**		1.817459
Prob(F-statistic)	0.000000			

****, **, and *, signify 1%, 5% and 10% respectively.*

On the other hand, the study uses ROE as another model (Model 2) to investigate the influence of capital structure (leveraging) and the other control variables on the value of the firm. Table 4 below shows the multiple regression results of Model 2 of the study. It shows the regression analysis between return on equity (ROE) and each of the independent variables (i.e., ROE (-1), TLTA, DTNP, FAGE, FATTA, LNTA, OWNS, PTBV, SDORE, TLTE and TYPE).

The Table shows statistically significant association exists between ROE and leverage ratio (a proxy for capital structure) of the firm and represented by total liability to total assets (TLTA) ratio. This indicates that capital structure is a significant factor in influencing the value of the firm when measured by ROE. Leverage ratio has the highest coefficient of -0.377463 and this designates that this variable is the most influential. The negative sign of the coefficient implies that the value of the firm is inversely affected by the use of debt (leveraging). In other words, the study determines that the higher the leverage ratio, the lower the value of the firm.

A significant positive relationship is found between ROE and the one-year-lagged return on equity (ROE (-1)), which implies that previous year's value explains the current year's value of the firm. The Table also reveals positive and statistically significant associations between value of the firm (measured by ROE) and each of LNTA, PTBV, and TLTE. This implies that size of the firm, growth opportunities, and liquidity of the firm are major determinants of the firm's value. The remaining variables are found to be statistically insignificant in

determining the value of the firm when proxied by ROE.

Conclusions

This study has empirically examined the impact of capital structure and some other firm-characteristics variables on the value of the firm. Data were obtained from 48 companies listed in the Kuwait stock exchange. The sample was selected from multiple sectors including manufacturing, basic materials, oil and gas, and services. Some sectors were considered as having special characteristics or considered as highly leveraged were excluded from the analysis. In Model 1 (i.e., where ROA is used as a proxy of the firm's value), the study findings reveal that capital structure (leverage) is a significant determinant of the value of the firm. The results also reveal that business risk, previous year value (one-year lagged ROA), dividends payout ratio, size, growth opportunities and liquidity of the firm are significant determinants of the firm's value.

On the other hand the study found insignificant association between firm's value measured by ROA and firm's age, tangibility (asset structure), ownership structure, and type of industry of the firm. In model 2 (i.e., where ROE is used as a proxy of the firm's value), the findings revealed that capital structure (captured by debt ratio) as the most influential factor in explaining the value of the firm. The empirical results also reveal that previous year's value explains the current year's value of the firm. In addition, the study reveals that size, growth opportunities, and liquidity of the firm are major determinants of the firm's value when proxied by ROE.

The variation in the results of model 1 of the study (when ROA is taken as the dependent variable) and model 2 (when ROE is taken as the dependent variable) is perhaps due to the differences in the sizes of the selected firms and their market shares. Most of our results are consistent with those in the literature. However, the inconsistencies between this study's findings and some of those in the previous literature is, probably, due to the dissimilarities in the country or countries used as a home or subject of study and because of the variation(s) in the timing used as a period for data collecting. The study is valuable to managers, academicians, policy makers and other stakeholders as it fills the gap of literature by providing evidence of the impact of capital structure and other firm specific variables on the value of the firm in Kuwait.

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