The Capital Structure Impacts on Firms' Performances
The Case of Jordanian Insurance Firms

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Abstract

This study seeks to investigate the impact of capital structure on firm performance by analyzing the relationship between the operating performance of Insurance companies listed in the Amman Stock Exchange during the period 2014- 2019, measured by return on asset (ROA) and return on equity (ROE) with short-term debt (STD), long-term debt (LTD) and total debt (TD). To examine the association, across sectional data and pool data analysis were used. The study has shown a positive relationship between short term debt and return on equity and a negative correlation between long term debt and return on investment. Therefore suggesting that Insurance sector utilize more short term debt because of low-interest expenses and most Insurance companies suffer losses because using excessive long term debt and a large amount of financial cost. Thus Insurance companies firms utilize debt, but more portion of financing should be through short term debt (STD) and long-term debt (LTD) in less proportion.

Keywords: Capital Structure, Operation Performance, Insurance sector, Debt.

Introduction

Capital structure had face a heated debate as it crucial one among all the aspects of capital investment decisions since firm's performance is affected by such determined structure. So while deciding which capital structure is optimal proper attention and care must be considered. Capital structure is a critical component of balance sheet indeed; furthermore, capital structure is part of financial structure.

Taylor and Venhorn (1996) stated that "Capital structure is total sum of outstanding long-term securities of both debt and equity (page number). Similarly, Weston and Bingham (1978) referred to capital structure as the lasting funds used by a firm such as preferred stock, long term debt, and net equity. Capital structure is considered as an important decline among the all scholarly topics in fiancé because firms' ability to take into account their stakeholder's needs is highly associated with capital structure. Consistence with the above, Saad (2010) stated that capital structure describes the way the firm finances its assets by equity, debt, and hybrid securities.

For many decades the capital structure had faced a heated debates that, unfortunately, have not reached on valid argument that define a certain proportion of debt and equity in capital structure that increase firm value and performance therefor capital structure is still a complicated arguments. Nevertheless, most of conducting studies and empirical finding, revealed that capital structure decisions have significant impact on firm's value and its performance more than simple importance stated by Modigliani and Miller 1958 (thereafter MM) and Latterly , Modigliani and Miller(1963).

Main active strategies, usually used, by manger to improve firm performance is based on utilization of debt and equity portion in firm capital structure (Gleason *et. al*.2000). Therefore, minimizing the cost of capital (WACC) and achieving the optimal capital structure became the critical decision companies seek. To this end, this research tried to investigate whether capital structure of listed insurance company listed in Amman Stock Exchange (hereinafter, ASE) will affects its profitability.

Jordan as a developing country, ranked as a 68th of largest world economy in terms of absolute dollars. Moreover it has a semi industrialized economy including, phosphates, potash, and their fertilizer industries; tourism; overseas remittances; and foreign aid. Insurance sector play a vital role for the socio-economic development so this is very important.

Due to the Industrial constructions. Insurance sector is at the peak in Jordan economy. There are more than 3,000 are employed in this sector either directly or indirectly and this can be terribly massive contribution by the Insurance sector in providing employment to youth.

Objective of Study

Grounded on the heated debates and discussions the relation between capital structure and firms performance has faced, this study aimed to discuss the following major objectives. First, try to empirically investigate and find evidences whether firms' capital structure decisions affects its profitability. Then tries to estimate the optimal capital structure of insurance entities listed in ASE. Finally, the current study focus on analyzing, if exist, the optimal capital structure trends. Where the independent capital structure variables are:

1. Debt to Equity Ratio = Total Debt / Total Equity.
2. Debt Ratio = Total Liabilities / Total Assets.
3. Short Term Debt to Assets (STDA) = Short Term Debt / Total Assets.
4. Long Term Debt to Assets (LTDA) = Long Term Debt / Total Assets.
5. Earnings per share (EPS).
6. Returned on Assets (ROA).
7. Return on Equity (ROE)

A company's debt ratio of a company offers a view at how the company is financed. If a company has a high debt ratio then it is often considered to be "highly leveraged". Conversely, if a company has a low debt ratio this indicates that most of their assets are fully owned. In some instances, a high debt ratio indicates that a business could be in danger if their creditors were to suddenly insist on the repayment of their loans. This is one reason why a lower debt ratio is usually preferable. To find a comfortable debt ratio, companies should compare themselves to their industry average or direct competitors, Mitcalf and Titard (1976).

Problem and Question of the Study

As its crucial decision to decide the optimal capital structure of firms, the analyzing of the impact of capital structure decisions on firm's performance and profitability is pertinent because there is no consensus on the optimal capital structure. Hence, this study will investigate to what extent the capital structure decisions have influences over the profitability of insurance firms listed in ASE. To handle this issue this research tries to provides answer to the following question:

- Is a firm's profitability significantly affected by its capital structure?
- Is there an optimal capital structure that suit the listed Insurance firms?
- What is the trend of capital structure being practiced by listed Insurance firms in Jordan?
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Theoretical background

The determinants of profitability and theories thereof used in this study are those frequently described in conventional Insurance companies' studies and literature. The profitability

determinants were basically divided into two main categories, namely the internal determinants and the external determinants. In order to incorporate the internal and external determinants into a single profitability model, it was necessary to pool cross-section and time-series data. As a result, it was necessary to include dummy variables to take account of inter-firm and inter temporal differences in the intercept. Thus, pooled regression analysis was applied to a linear model to analyze the profitability determinants of Insurance companies.

Financial Performance

A subjective measure of how well a firm can use assets and resources from its core mode of business and generate revenues. This term is also used as a general indicator of a firm's overall financial health for a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt. The word 'Performance is derived from the word 'parfourmen', which means 'to do', 'to carry out' or 'to render'. It refers the act of performing; execution, accomplishment, fulfillment, etc. In border sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed. In other words, it refers to the degree to which an achievement is being or has been accomplished.

In the words of Frich Kohlar "The performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like" (Gharakhani *et al.*, 2014). Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's success, conditions, and compliance. Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.[1]

Financial Performance Analysis

In short, the firm itself as well as various interested groups such as managers, shareholders, creditors, tax authorities, and others seeks answers to the following important questions. Firstly, what is the financial position of the firm at a given point of time?. Secondly, how is the Financial Performance of the firm over a given period of time?

[1] http://www.investopedia.com/terms/f/financialperformance.asp (last access 2014)

These two questions can be answered with the firm's financial analysis help whom extremely involved in using financial statements. A financial statement is an organized collection of data according to logical and Conceptual Framework consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a Balance Sheet, or may reveal a series of activities over a given period of time, as in the case of an Income Statement. Thus, the term 'financial statements' generally refers to two basic statements: the Balance Sheet and the Income Statement. The Balance Sheet shows the financial position (condition) of the firm at a given point of time. It provides a snapshot and may be regarded as a static picture (Al-Sartawi, 2019).

Income statement is a summary of a firm's revenues and expenses over a specified period, ending with net income or loss for the period. However, financial statements do not reveal all the information related to the financial operations of a firm, but they furnish some extremely useful information, which highlights two important factors profitability and financial soundness. Thus analysis of financial statements is an important aid to financial performance analysis. Financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the business.

The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm's position and performance. The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second is to arrange the information in a way to highlight significant relationships. The final is interpretation and drawing of inferences and conclusions. In short, financial performance analysis is the process of selection, relation, and evaluation.

Areas of Financial Performance Analysis

Financial analysts often assess firm's production and productivity performance, profitability performance, liquidity performance, working capital performance, fixed assets performance, fund flow performance and social performance. However the financial health of any company is commonly by considering the following perspectives: Working capital Analysis; Financial structure Analysis; Activity Analysis and Profitability Analysis.

Significance of Financial Performance Analysis

Interest of various related groups is affected by the financial performance of a firm. Therefore, these groups analyze the financial performance of the firm. The type of analysis varies according to the specific interest of the party involved. Trade creditors: interested in the liquidity of the firm (appraisal of firm's liquidity). Bond holders: interested in the cash-flow

ability of the firm (appraisal of firm's capital structure, the major sources and uses of funds, profitability over time, and projection of future profitability.

Literature Review

Theories related to capital structure such as Miller and Modigliani (M&M), Agency Theory, Pecking Order Theory etc. Capital structure theory was initiated by seminal study of Modigliani & Miller (1958). All the theories on capital structure work under different situation and these theories.

Dang *et al.,* (2019) investigate the effects of capital structure on firms' performances of listed firms on food and beverage sector in Vietnam, they used unbalanced panel data to conduct their analysis, the results stated that leverage has strongest impact on firm performance among other variable. Further, debt ratios are significantly and positively affect ROE, EPS but negatively affect ROA.

Oziomobo and Ghazali (2016) investigate the impacts of capital structure non-financial small Nigerian firms' performances, they used Tobin's Q and ROA as a proxy for the firm performance, results of Oziomobo and Ghazali reveals that there is a positive and significant relationship between assets turnover and, tangible and Tobin's Q. also its found out that risk maintains negative and significant relations with Tobin's. This study concluded that firms' age has both a negative and significant relationship with ROA while sales growth has appositive and significant impacts.

Javed *et al.*, (2014) used a sample of 63 Pakistani companies listed on Karachi Stock Exchange, a fixed effects model where used to analyze the relationship between firm performance (ROA, ROE, ROS) and capital expenditure (DTA, EQA, LDA). After conducting a pooled regression their results convey that when return on asset is the dependent variable appositive impact of capital structure on firms' performance were noticed. Furthermore, debt over assets ratio (DTA) showed positive impact when return on equity is the dependent variable while equity over assets ratio (EQA) and long term debts over assets ratio (LDA) revealed a negative impact when return on sales (ROS) was used as dependent variable then DTA and EQA showed negative link to ROS but LDA revealed positive impact over ROS, as noticed the results' direction are mixed regarding the dependent variable used.

In the same line, Saputra *et al.,* (2014) using the financial sector in the Indonesia Stock Exchange (IDX) for the period 2009 to 2013 to examine the effect of capital structure on companies performance. Contrary to Javed *et al.,* (2014), the result shows a negative impacts on capital structure on firms' performance. Hence, this finding is in consistence with the Peaking theory that indicates capital structure has different impacts on each financial sector.

Zeitun and Tian (2007) used as ample of 167 Jordanian listed companies for the period of 1989-2003 to investigate whether the capital structure has any effects upon the corporate performance by taking Jordan as a case study. Different measures of capital structure where employed to conduct this investigation such as short-term debt, long-term debt, and total debt to total. By using Tobin's Q, MBVR, P/E, and MBVE to measure the market performance of firms, and the ROE, ROA, and PROF as accounting performance measures. The results highlighted that both positive and negative effects between capital structure and firms' profitability. Hence, capital structure has a significantly negative impact on the firm's performance measures, in both the accounting and market's measures. Contrary to this the short-term debt to total assets (STDTA) level has a significantly positive effect on the market performance measure (Tobin's Q).

Similarly to work of Zeitun and Tian (2007), Soumadi and Hayajneh (2012) examined the effects of capital structure on stock performance of 76 industrials and services companies listed in Amman stock market for the period (2001-2006). The study used both return on equity as a measure of profitability and firm value as dependent variables. Whereas financial leverage, Tangible assets, Firm size and Firm growth as Independent variables. Their results conveys that capital structure associated negatively and statistically with firm performance on the study sample generally, there was no significant difference to the impact of the financial leverage between high financial leverage firms and low financial leverage firms on their performance. Similarly, the results also convey that there is no difference between the financial leverage of high growth firms and low growth firms on the performance, which it has a negative association.

In the same line, Onaolapo and Kajola (2010) investigated the impact of capital structure on financial performance of industrial and nonfinancial Nigerian firms' listed in Stock Exchange for a period of 7 years from 2001 to 2007. Dependent variables are represented by ROA, ROE. Independent variables are debt ratio, firm size by asset, fixed assets ratio, growth rate. The study results observed a significant and negative relationship between financial performance and debt ratio which they contended supported the agency cost theory of capital structure.

Gleason *et al.,* (2000) used the financial information of 14 European countries the test the relation between firm's capital structure and ROA and Profit margin as a measures of firms' performances. Their results indicates a significant and negative relationship between firm's capital structure and firms' performances. Furthermore, the result convey that, in general, firms' with higher levels of debts had a lower performance.

In contrary to Gleason *et al.,* (2000) finding, Dessi and Robertson (2003) find a positive relationship between leverage and financial performance. They assumed that, a good governed companies should have an easier access to outside financial sources than other companies. If this is the case, when they need a loans to raise working capital or investments they can easily

increases the amount. That is why it is expected to be there a positive relationship between leverage and corporate governance.

Margrates and Psillaki (2010) by using a non-parametric data envelopment analysis (DEA) methods to investigated the existence relationship between both capital and ownership structure and firm performance. The results ends to that financial leverage (debt ratio) is positively and significantly correlated with firm performance (added value, labor and capital).

To come over these debates, the current study tries to extend the existing research that investigate the Jordan case by introducing extra variable the from the researcher point of view will affects more the relationship between firm's capital and their performances, also we adopt the across sectional data and pool data analysis to test this association.

Research Methodology

Data

The data used in this study includes all Insurance companies firms listed in Amman Stock Exchange (ASE). Totally there were 21 companies listed under Insurance sector of Jordan in ASE. In this research 16 companies were used. Data from year 2014 to 2019 for six years was collected from financial statement of companies. Companies that are not included in sample because of non- availability of data, newly listed in stock exchange.

The data set contains detailed information about each firm. The items of interest were: balance sheets, income statements of insurance company listed in Amman stock exchange and data also obtained from the Annual Audited Reports of these firm. Data of Return on assets, Return on equity, debt to equity, debt to assets obtained from Bank of Jordan. Coverage ratio is calculated using the accounting data released in firms' annual reports.

Analysis

After collection of the study data, and based upon what we mentioned in the previous chapter, the collected data have been analyzed in order to draw conclusions for the insurance companies listed in Amman stock market.

Hypothesis of the Study

All the hypothesis of the study is presented in the null format. For the affirmation and negation of the main hypothesis, the study branching out the following sub hypothesis that related to each main hypothesis were measured.

H_1: There is no effect of the framework of the capital on the profit measured by the ROE.

H_{11} There is no Effect of Debt to Equity Ratio on ROE
$H_{1.2}$ There is no Effect of Debt Ratio on ROE
$H_{1.3}$ There is no Effect of Debt to Asset Ratio on ROE

H_1: There is no effect of the framework of the capital on the profit measured by the ROA.

H_{21} There is no Effect of Debt to Equity Ratio on ROA
$H_{2.2}$ There is no Effect of Debt Ratio on ROA
$H_{2.3}$ There is no Effect of Debt to Asset Ratio on ROA

H_1: There is no effect of the framework of the capital on the profit measured by the EPS.

H_{31} There is no Effect of Debt to Equity Ratio on EPS
$H_{3.2}$ There is no Effect of Debt Ratio on EPS
$H_{3.3}$ There is no Effect of Debt to Asset Ratio on EPS

Prediction Equations Form:

To investigate the hypotheses of this study we use ordinary least squares model to investigate the effect of capital structure on firm performance .The study builds general multi-regression model as following:

$$Y_{it} = \alpha_i + \beta_i X_{it} + e_{it}$$

Where Y_{it} is the dependent variables for firm *i* in year *t*, is α_i is constant coefficient, β_i is slope coefficient of independent variables of firm *i*, X_{it} is independent variables for firm *i* in year *t* and e_{it} standard error of firm *i* in year *t*.

Based on above mention model, we extract the next three equations to demonstrate the effect of capital structure on firm performance which implies three measures of performance: return equity, return on asset and earnings per share.

$$ROE_{it} = \alpha_I + \beta_I DTD_{it} + \beta_i DR_{it} + \beta_i DAR_{it} + e \quad (1)$$

$$ROA_{it} = \alpha_I + \beta_I DTD_{it} + \beta_i DR_{it} + \beta_i DAR_{it} + e \quad (2)$$

$$EPS_{it} = \alpha_I + \beta_I DTD_{it} + \beta_i DR_{it} + \beta_i DAR_{it} + e \quad (3)$$

Where: Y_{it} refer to return on equity (ROE), return on asset (ROA) and earnings per share (EPS) sequentially; $X1_{it}$ is debt to equity ratio (DTD), $X2_{it}$ is debt ratio (DR), $X3_{it}$ is debt to asset ratio (DAR) and e is error term.

Descriptive Analysis

Table 1.1 Destructive Statistic

	Minimum	Maximum	Mean	Std. Deviation
Debt to Equity Ratio %	-16.86-	69.93	14.9485	21.36731
Debt Ratio %	-112.86-	116.86	52.3889	20.30807
debt to asset ratio	.00	4.16	.5899	.44340
Return on Equity %	-136.22-	297.65	18.8556	52.16020
Return on Assets %	-123.68-	627.19	6.3976	49.41910
EPS %	-16.86-	60.89	1.8712	8.94306

After reviewing the results of the descriptive analysis based on the above table (1.1) we found that Debt Ratio has the largest mean among other variables, return on assets is larger than that of return on assets, and furthermore, the above computations show that the Jordanian insurance company rely on the short-term debt than the long-term debt. Therefore the performance of the companies might be affected.

Table 1.2 Correlations

Items	Debt to Equity Ratio	Debt Ratio	Debt to Asset Ratio
Debt to Equity Ratio	1		
Debt Ratio	.001	1	
debt to asset ratio	-.089	.234**	1

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

Examination to verify that no high correlation problem exists in the study variables. The correlation problem appears when the variables in the descending form are highly correlated, and the correlation problem in the ascending form affects the explanatory variables coefficients, and also results in an unreal rise in the correlation coefficient between the study variables. An indication appears to show that this problem exists if Person coefficient is equal to or is more than 80%.

Table 1.3 Correlation between the study variables

Items	Debt to Equity Ratio %	Debt Ratio %	Debt to asset ratio	Return on Equity %	Return on Assets %	EPS %

Debt to Equity Ratio %	1					
Debt Ratio %	.001	1				
debt to asset ratio	-.089	.234**	1			
Return on Equity %	.149*	.076	-.044	1		
Return on Assets %	-.060	.145	.054	-.004	1	
EPS %	.297**	.001	-.004	.171*	-.188*	1

As shown in the table 1.3, none of the correlation percentages is greater than 80% among the study variables which does not indicates any of a high correlation problem between the study variables.
Debt to equity is highly correlated with EPS (0.297**) and Debt to Asset ratio is strongly and positively correlated with Debt ratio (0.234**) whereas, Return on Assets has the highest negative correlation with EPS (-0.188*).

Examination of the Study Hypothesis

H_1: The effect of the framework of the capital on the profit measured by the ROE.

For the affirmation and negation of this hypothesis, the branch hypothesis related to each main hypothesis were measured. Following are the results of the hypothesis examination branching out from the main hypothesis, and a discussion of those results. We have depended on the value of sig for acceptance or refusal of the hypothesis. If the value is sig< 5% then the hypothesis is accepted. We will also point to the ratio which explains each variable responsible for the secondary variable by depending on the value of the adjusted *r*- square.

H_{11} Results Describes the Effect of Debt to Equity Ratio on ROE

Sig	t- statistics	Coefficients	Constant B	Debt to Equity Ratio B
0.046	2.852	0.149	13.431	0.363
Adjusted *R* Square		0.017		
Model F test		4.022		

$\boldsymbol{H_{11}}$ Results shows the analysis results of a simple descending for the independent variable (debt to equity ratio) and its effect on the secondary variable (ROE). After reviewing this table, it appeared that it is the adjusted r square amounting to 0.017 which indicates that ROE is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of 0.046 sig is less than 5% which indicates that debt to equity ratio affects roe and consequently,

the first subsidiary hypothesis was accepted and in view of the value (coefficients 0.149) a direct relation exists between the secondary variable and the independent variable.

$H_{1.2}$ Results Describes the Effect of ROE on Debt Ratio

Sig	t- statistics	Coefficients	Constant B	Debt Ratio B
0.312	0.803	0.076	8.661	0.195
Adjusted *r*- Square		0.001		
Model F test		1.028		

$H_{1.2}$ Results show the analysis results of a simple descending for the independent variable (debt ratio) and its effect on the secondary variable (ROE). After reviewing this table, it appeared that it is the adjusted r square amounting to (0.001) which indicates that ROE is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.312 sig) is more than 5% which indicates that debt to equity ratio does not effect on the ROE and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients 0.076) a direct relation exists between the secondary variable and the independent variable.

$H_{1.3}$ Results Describes the Effect of Debt to Asset Ratio on ROE

Sig	t- statistics	Coefficients	Constant B	debt to asset ratio B
0.558	3.373	0.044-	21.904	5.167 -
Adjusted *r- Square*		-0.004		
Model *F-test*		0.344		

$H_{1.3}$ Results show the analysis results of a simple descending for the independent variable (debt to assets ratio) and its effect on the secondary variable (ROE). After reviewing this table, it appeared that it is the adjusted r square amounting to (-0.004) which indicates that ROE is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.558 sig) is more than 5% which indicates that debt to equity ratio does not effect on the ROE and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients -0.044) an inverse relationship exists between the secondary variable and the independent variable.

Effect of (Debt to Equity Ratio & Debt Ratio & debt to asset ratio) on ROE

Results of multiple descending

Model Summary(1.4)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.174[a]	.030	.014	51.79986

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

ANOVA [b] (1.5)

Model		Sum of Squares	*Df*	Mean Square	F	Sig.
1	Regression	14755.192	3	4918.397	1.833	.143[a]
	Residual	472247.649	176	2683.225		
	Total	487002.841	179			

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

b. Dependent Variable: Return on Equity %

Coefficients [a] (1.6)

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.396	11.484		.470	.639
	Debt to Equity Ratio %	.351	.182	.144	1.931	.055
	Debt Ratio %	.225	.196	.088	1.147	.253
	Debt to Asset Ratio	-6.070-	9.019	-.052-	-.673-	.502

a. Dependent Variable: Return on Equity %

After discussion of the secondary hypothesis, and review of table no. (1.5) where the value of sig (0.143) which is larger than 5%, the main first hypothesis was refused. This means that there is no effect of the frame of the capital on ROE, in addition to the multiple regression results which showed that the r square Coefficient of determination was (0.14). This means that roe is interpreted in this ratio of variation in the frame of the capital, in addition to the existence of a direct relation between the frame of the capital and ROE.

$H_{2.1}$: The Effect of Debt to Equity Ratio on ROA

Sig	t- statistics	Coefficients	Constant B	Debt to Equity Ratio B
0.425	1.879	-0.060	8.465	-0.138

Adjusted R Square	-0.002
Model F test	0.638

Results of $H_{2.1}$ show the analysis results of a simple descending for the independent variable (debt to assets ratio) and its effect on the secondary variable (ROA). After reviewing this table, it appeared that it is the adjusted r square amounting to (-0.002) which indicates that ROA is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.425sig) is more than 5% which indicates that debt to equity ratio does not effect on the ROA and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients -0.060) a inverse relationship exists between the secondary variable and the independent variable.

$H_{2.2}$: The Effect of Debt Ratio on ROA

Sig	t- statistics	Coefficients	Constant B	Debt Ratio B
0.062	1.195	0.145	-12.113	0.353
Adjusted R Square	0.016			
Model F test	3.833			

$H_{2.2}$ Results shows the analysis results of a simple descending for the independent variable (debt ratio) and its effect on the secondary variable (ROA). After reviewing this table, it appeared that it is the adjusted r square amounting to (0.016) which indicates that ROA is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.062 sig) is more than 5% which indicates that debt to equity ratio does not effect on the ROA and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients 0.145) a direct relation exists between the secondary variable and the independent variable.

$H_{2.3}$: The Effect of Debt to Asset Ratio on ROA (H2.3)

Sig	t- statistics	Coefficients	Constant B	debt to asset ratio B

0.474	0.466	0.054	2.863	2.992
Adjusted R Square	-0.003			
Model F test	0.516			

$H_{2.3}$ Results indicate that the analysis results of a simple descending for the independent variable (debt to assets ratio) and its effect on the secondary variable (ROA). After reviewing this table, it appeared that it is the adjusted r square amounting to (-0.003) which indicates that ROA is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.474sig) is more than 5% which indicates that debt to equity ratio does not effect on the ROA and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients 0.054) an inverse relationship exists between the secondary variable and the independent variable

$H_{2.4}$: The Effect of (Debt to Equity Ratio & Debt Ratio & debt to asset ratio) on ROA Results of multiple descending (Model Summary of$H_{2.4}$)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.158[a]	.025	.008	49.21398

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

ANOVA [b] (2.5)

Model		Sum of Squares	*Df*	Mean Square	F	Sig.
1	Regression	10887.502	3	3629.167	1.498	.217[a]
	Residual	426274.811	176	2422.016		
	Total	437162.313	179			

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

b. Dependent Variable: Return on Assets %

Coefficients [a] (2.6)

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	*Sig.*
		B	Std. Error	Beta		
1	(Constant)	-10.652-	10.911		-.976-	.330
	Debt to Equity Ratio %	-.136-	.173	-.059-	-.784-	.434
	Debt Ratio %	.345	.186	.142	1.850	.066
	debt to asset ratio	1.719	8.569	.015	.201	.841

a. Dependent Variable: Return on Assets %

After discussion of the secondary hypothesis, and review of table no. (1.4) where the value of sig (0.217) which is larger than 5%, the main Second hypothesis was refused. This means that there is no effect of the frame of the capital on ROA, in addition to the multiple regression results which showed that the r square Coefficient of determination was (0.008). This means that ROA is interpreted in this ratio of variation in the frame of the capital, in addition to the existence of a direct relation between the frame of the capital and ROA.

$H_{3.1}$: The Effect of Debt to Equity Ratio on EPS

Sig	t- statistics	Coefficients	Constant B	Debt to Equity Ratio B
0.001	0.013	0.297	0.010	0.124
Adjusted R Square	0.083			
Model F test	17.273			

$H_{3.1}$ Results show the analysis results of a simple descending for the independent variable (debt to equity ratio) and its effect on the secondary variable (EPS). After reviewing this table, it appeared that it is the adjusted r square amounting to (0.083) which indicates that EPS is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.001 sig) is less than 5% which indicates that debt to equity ratio affects EPS and consequently, the first subsidiary hypothesis was accepted and in view of the value (coefficients 0.297) a direct relation exists between the secondary variable and the independent variable.

$H_{3.1}$: The Effect of Debt Ratio on EPS

Sig	t- statistics	Coefficients	Constant B	Debt Ratio B
0.984	0.991	0.001	1.837	0.001
Adjusted R Square	-0.006			

Model F test	0.001

$H_{3.1}$ Results shows the analysis results of a simple descending for the independent variable (debt to assets ratio) and its effect on the secondary variable (EPS). After reviewing this table, it appeared that it is the adjusted r square amounting to (-0.006) which indicates that EPS is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.984sig) is more than 5% which indicates that debt to equity ratio does not effect on the EPS and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients 0.001) a inverse relationship exists between the secondary variable and the independent variable.

$H_{3.2}$: The Effect of debt to asset ratio on EPS

Sig	t- statistics	Coefficients	Constant B	debt to asset ratio B
0.960	1.719	-0.004	1.916	-0.075
Adjusted R Square 0.006				
Model F test 0.002				

$H_{2.4}$ Results shows the analysis results of a simple descending for the independent variable (debt to assets ratio) and its effect on the secondary variable (EPS). After reviewing this table, it appeared that it is the adjusted r square amounting to (-0.006) which indicates that EPS is interpreted in this ratio of variation in debt to equity ratio. Results revealed that the value of (0.960sig) is more than 5% which indicates that debt to equity ratio does not effect on the EPS and consequently, the first subsidiary hypothesis was not accepted and in view of the value (coefficients -0.004) an inverse relationship exists between the secondary variable and the independent variable.

$H_{3.4}$: The Effect of (Debt to Equity Ratio & Debt Ratio & debt to asset ratio) on EPS

Results of multiple descending (Model Summary of $H_{3.4}$)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298[a]	.089	.073	8.60829

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

ANOVA [b] (3.5)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298[a]	.089	.073	8.60829

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1274.056	3	424.685	5.731	.001[a]
	Residual	13042.057	176	74.103		
	Total	14316.113	179			

a. Predictors: (Constant), debt to asset ratio , Debt to Equity Ratio %, Debt Ratio %

b. Dependent Variable: EPS %

Coefficients [a] (3.6)

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.183-	1.909		-.096-	.924
	Debt to Equity Ratio %	.125	.030	.300	4.146	.000
	Debt Ratio %	-.002-	.033	-.005-	-.062-	.951
	debt to asset ratio	.484	1.499	.024	.323	.747

a. Dependent Variable: EPS %

After discussion of the secondary hypothesis, and review of table no. (1.4) where the value of sig (0.001) which is larger than 5%, the main Second hypothesis was accepted. This means that there is effect of the frame of the capital on EPS, in addition to the multiple regression results which showed that the r square Coefficient of determination was (0.073). This means that EPS is interpreted in this ratio of variation in the frame of the capital, in addition to the existence of a direct relation between the frame of the capital and EPS.

Conclusion

This study examined the relationship between capital structure and profitability of Insurance companies listed in Amman Stock Exchange during the 6 year period 2014- 2019. The study has shown positive relation between short term debt and return on equity and negative relationship between long term debt and return on equity. Therefore suggesting that insurance sector utilize more short term debt because of low interest expenses and most of Insurance companies suffer losses because utilizing excessive long term debt and large amount of financial cost. Thus Insurance companies firms utilize debt but more portion of financing should be through short term debt and long-term debt (LDC) in less proportion.

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