Penerbit Akademia Baru

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

Capital Structure and Performance of Malaysia Plantation Sector

S. L. Tan[*], *and N. I. N A. Hamid*[a]

Faculty of Management, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia.
[*]*singlintan@gmail.com*, [a]*m-norhan@utm.my*

Abstract – *This paper investigates the relationship between capital structure and firm performance. The sample of this study is 41 listed companies in Bursa Malaysia from year 2007 to year 2011. This study uses four capital structure measures as independent variables which are short-term debt to total assets (STDTA), long-term debt to total assets (LTDTA), total debt to total assets (TDTA) and total debt to total equity (TDTE). Another five firm performance as dependent variables which are return on equity (ROE), return on assets (ROA), gross profit margin (GMS),earnings per share (EPS) and price earnings (PE). Capital structure variable which measured by total debt to total assets (TDTA), short-term debt to total assets (STDTA) and long-term debt to total assets (LTDTA) have significant positive relationships with return on equity (ROE), return on assets (ROA); and significant negative relationships with gross profit margin (GPM). However, capital structure which measured by total debt to total equity (TDTE) have significant positive relationships with return on equity (ROE) and significant negative relationships with gross profit margin (GPM) and return on assets (ROA). Total debt to total equity (TDTE) has a significant influence on return on equity (ROE) and price earnings (PE). While, total debt to total assets (TDTA) and total debt to total equity (TDTE) are significantly influenced return on assets (ROA). Gross profit margin (GPM) is significantly influenced by three independent variables which are total debt to total equity (TDTE), total debt to total assets (TDTA) and short-term debt to total assets (STDTA). Earnings per share (EPS) is significant influence by total debt to total assets (TDTA) and short term debt to total debt (STDTA). In sum, the results show that there is a relationship and significant influence between capital structure and corporate performance in Malaysia plantation sector firms.*

Keywords: Capital Structure, Firm Performance, Bursa Malaysia

1.0 INTRODUCTION

Capital structure is the financial framework of a company which includes debt and equity. It refers to the ability of a company to finance their capital that aligns with stakeholders' needs. In the financial terms, capital structure refers to the way of a company financing their assets with the mixture of debt as well as equity [1]. Capital structure is a combination of firm's debt and common equity as well as preferred equity. In short, capital structure is a crucial term on how a company finances their overall operations by using variety of sources and funds. Decision that related with capital structure is necessary and crucial for every firm.

Based Modigliani and Miller theory (1958), all companies are assumed to operate under a perfect market, which all are absent of transaction costs, default risk and taxation [2]. However,

in the real world, capital structure of a company is very hard to determine. Financial managers have the difficulty to accurately figure out the optimal capital structure for a firm. Besides Modigliani and Miller theory, there are also few others theories of capital structure such as pecking order theory (1984), agency theory (1976) and trade-off theory (1976). Pecking order theory by Myers and Majluf [3] claimed that there are three main sources of financing available to organizations which are retained earnings, debts and equity. From these three main sources, organizations will choose first on retained earnings, second on debt and third on equity. In debt and equity, there will be risk premium but the risk for equity is higher than the debt. Hence, firms will fund their project using retained earnings if there is a chance and possibility [3].

However, Myers and Majluf [3] argued that, there is a circumstance so called "information asymmetry" between the insiders which are refers to managers and the outsider who are the investors. In this case, it is assumed that the managers (insiders) have more and exact information about the financial situations in the company rather than the investors (outsider). Managers will work or invest based only on the level of risk on that project without considering the level of dividend of that project. Managers mostly are risk adverse and this make the investors losing the chance of investing in high rate return project.

Another theory of capital structure which is trade-off theory (1976) refers to how a company finances their capital on debt finance and equity finance in order to balance their cost and benefits. The advantage of trade-off theory is that, one could gain the tax benefits if the financing is conducted through debt. However, while enjoying the advantage of tax benefits, at the same time company will also have to bear with the potential of financial distress cost which included bankruptcy costs of debt. Financial distress costs or bankruptcy cost occur when the company is not able to manage with its debtor's obligations.

On the top of above mentioned trade-off theory, agency cost theory (1976) is another important theory of capital structure [4]. There is an existence of agency cost in every company if the managers are not the shareholders or owners. Agency cost occurs when the shareholders (principal) and manager (agent) did not have mutual expectation on the action taken on maximizing shareholder wealth. In a big company, there might be hundreds or thousands of shareholders (principals) which the ownership of the company is divided across many people. In this type of company, normally it involves agency problem due to the unclear ownership of management. Thus, manager (agent) might choose to maximize their own interest rather than maximize shareholder's wealth because if the high risk project fail, then the manager might lost their job, even though there is a possibility if the project succeed it would maximize shareholder's wealth.

Capital structure has a close relationship with firm performance [5]. Variety of variables can be used to measure the firm performance which includes productivity, growth and profitability. All of these measurements are linked to each other. This financial measurement can be the tools to determine the financial strengths, financial weaknesses, financial opportunities and financial threats of a company. According to Tian and Zeitun [5], by using accounting based and market measures, firm's capital structure has a significant as well as negative impact towards the firm's performance. Bistroval *et al.* [6] found that there is negative significant relationship between level of debt and firm performance. Roden and Lewellen [7] investigated the capital structure of 48 firms in US from year 1981 to 1990 and the result indicated that there is a positive relationship between profitability and capital structure. Abor [8] in his study found that there is a positive relationship between capital structure and firm performance during the period 1998 to 2002 in the Ghanian firms.

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

In Malaysia, there are many stakeholders and investor that did not emphasize on the effect of capital structure towards their company's performance, where they might believe that capital structure has no influence on their company's value [9]. Hence, this issue will be further investigated in this research. The purpose of this research is to clarify does the capital structure effect corporate performance? If so, is/are there any specific capital structure(s) that will affect the corporate performance? And lastly, is capital structure affecting the performance of plantation firms listed in Bursa Malaysia?

According to Bank Negara Malaysia (2011) [10], plantation sector is one of the major contributors to national gross domestic product; where the gross domestic product of plantation sector in year 2011 was RM54 299 million, is the fourth highest in Malaysia. Besides that, based on ninth Malaysia plan (2006-2010) [11], plantation sector has the high potential to become the engine growth in Malaysia. In ninth Malaysia plan (2006-2010) [11], an amount of RM11.4 billion is allocated to plantation sector for enhancing productivity, research and development, land consolidation and new land development. From this, it shows that plantation sector have the strong support by Malaysian government. In line with the continuous support from government, it is in best interest of this research to find out whether these supports will enhance the long term performance of Malaysia plantation sector. The study also intended to identify what are the determinants to the long term performance of plantation sector. Does capital structure is one of the determinants of plantation sector for long term performance?

2.0 LITERATURE REVIEW

Capital structure is the organization's long-term financing based on debt and equity. Having an optimal capital structure is very essential element to every firm. Those that have business in corporate form; mostly it is the task of management to make decision on the capital structure which can maximized the value of a firm. Making a wrong decision on the mixtures of capital structure will lead the organization to face financial distress or ultimately to bankruptcy. The relationship between capital structures decisions and firm value were in extensively examined over the past decades. A number of studies on capital structure and firm performance have been conducted since early 1990's. Some of the studies showed that there is no relationship between capital structure and corporate performance, however, there are also studies that show there is positive relationship between capital structure and corporate performance. A study done by Abu-Rub [12] based on 28 companies in Palestinian Stock Exchange (PSE) from the year 2006 to 2010, shows there is a positive relationship between capital structure and corporate performance based on accounting measures and market measures. In addition, there is also another study done is by Nawaz *et al.* [13] on the relationship between capital structure and firms performance on 173 organizations in the textile sector of Pakistan. In this study, the results showed that there is a positive effect between capital structure and corporate performance.

Meanwhile, there are also studies which show that there is a negative relationship between capital structure and corporate performance. A study by Pratheepkanth [14] on capital structure and financial performance on selected business companies in Colombo stock exchange Sri Lanka from the year 2005 to 2009, reported that there is a negative relationship between capital structure and firm's performance. In addition, another study by Tian and Zeitun [5] on capital structure and corporate performance in Jordan, based on 47 defaulted organizations and 120 non- default organizations from the year 1989 to 2003, also suggested that there is a negative relationship between capital structure and corporate performance.

Penerbit Akademia Baru

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

3.0 RESEARCH METHOD: SAMPLE AND DATA

This study focuses on the listed companies in Bursa Malaysia, in plantation sector from the financial year of 2007 to 2011. The data collected is in the form of secondary data, which was obtained from the website of Bursa Malaysia. Secondary data are in forms of the financial report and statements of the companies listed in the agricultural sector of Bursa Malaysia website. The data is collected from the year of 2007 to 2011 financial report. There populations are 41 listed companies which listed on the Main Board of Bursa Malaysia under plantation sector, from year 2007 to 2011. Plantation sector is one of the major sources of economic growth in Malaysia. Plantation has played a major role in the development of world civilization where most of the world's population are working on plantation until the start of the industrial revolution [15]. In Malaysia, plantation sector is one of the important sectors that contribute to the economy [10]. Plantation sector has shown the improvement on their performance based on the value added grown each year. As refer to the gross domestic product (GDP), in year 2005 the value is RM44 912 million, and has increased 5.8% to RM47 533 million in year 2006. In year 2008, GDP of plantation sector increased 3.8% to RM50 036 million and in year 2009, it has slightly improved by 0.1% to RM50 063 million. In year 2010 it rose 2.4% to RM51 263 million and in year 2011, shows a dramatically improvement by 5.9% to RM54 299 million. The period of the study is five years starting from year 2007 to 2011 which included the period of global post financial crisis; in which Malaysia with no exceptions also affected. This period is selected to avoid if any, effect of global financial crisis to the performance of the plantation sector.

3.1 Determinants of Variables

In this study, there are two main variables which are independent variables (capital structure) and dependent variables (firm performance). For capital structure the proxies and formulation are as below:

$$Short-term\ Debt\ to\ Total\ Assets\ (SDTA) = \frac{Short\ Term\ Debt}{Total\ Assets} \quad (1)$$

$$Long-term\ Debt\ to\ Total\ Assets\ (LDTA) = \frac{Short\ Term\ Debt}{Total\ Assets} \quad (2)$$

$$Total\ Debt\ to\ Total\ Assets\ (TDTA) = \frac{Total\ Debt}{Total\ Assets} \quad (3)$$

$$Total\ Debt\ to\ Total\ Equity\ (TDTE) = \frac{Total\ Debt}{Total\ Equity} \quad (4)$$

The study employed five firm's performance measure as dependent variables consists of three accounting based measures and two market based measures. Three accounting based measures which are return on assets, return on equity and gross profit margin, while, two market based measures which are price earnings ratio and earnings per share. For firm's performance, the proxies and formulation are as below:

$$\text{Re}turn\ on\ Equity\ (ROE) = \frac{Net\ Income}{Total\ Equity} \quad (5)$$

Penerbit Akademia Baru

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

$$Return\ on\ Assets\ (ROA) = \frac{Net\ Income}{Total\ Assets} \tag{6}$$

$$Gross\ Profit\ Margin\ (GMS) = \frac{Gross\ Profit}{Total\ Sales} \tag{7}$$

$$Price\ Earnings\ Ration\ (PE) = \frac{Net\ Income}{Outstanding\ Shares} \tag{8}$$

$$Earnings\ Per\ Share\ (EPA) = \frac{Price\ per\ Share}{Earnings\ per\ Share} \tag{9}$$

3.2 Correlation Coefficient

Pearson correlation is used to analyze the relationship between independent variables and dependent variables which is the first objective of this study. The Pearson correlation (r) is a measure of strength of association between two variables. The correlation may vary from +1 to -1. If the result is -1, it shows that there is perfect negative correlation between two variables, while, if the results is +1, it shows that there is perfect positive correlation between two variables. Furthermore, if the result is 0, it shows that there is no linear relationship between the two variables. However, perfect correlations are rare, except when a variable is correlated with itself, hence almost all of the correlations will be represent by decimal points in between -1 to +1 [16].

The formula for (r) is:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\left[n\sum x^2 - (\sum x)^2\right]\left[n\sum y^2 - \left(\sum y\right)^2\right]}} \tag{10}$$

3.3 Multiple Regressions

Multiple regressions is a statistical technique that allows us to predict someone's score on one variable on the basis of their scores on several other variables. Multiple regressions have more than one independent variable, and one dependent variable. The objective of multiple regression analysis is to make a prediction about the dependent variable based on its covariance with all the concerned independent variables [17]. This study will use multiple regression analysis to test the five dependent variables and four independent variables. The beta coefficient (β) is used to identify the significance influence of capital structure towards corporate performance which is the second objective of this study.

The model will be as follows:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mathcal{E}_i \tag{11}$$

Where:

Y_i = Dependent Variable (ROE, ROA, GPM, P/E, EPS)
X_1 = Short-term Debt to Total Assets (STDTA)
X_2 = Long- term Debt to Total Assets (LTDTA)
X_3 = Total Debt to Total Assets (TDTA)

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

X_4 = Total Debt to Total Equity (TDTE)
$\mathcal{E}_i$ = Error term

4.0 RESULTS AND ANALYSIS

Table 1 reports the summary of descriptive statistics for all the variables use including independent variables and dependent variables. Four independent variables in this study which are total debt to total assets (TDTA), short term debt to total assets (STDTA), long term debt to total assets (LTDTA) and total debt to total equity (TDTE). While, five dependent variables are return on equity (ROE), return on assets (ROA), gross profit margin (GPM), earnings per share (EPS) and price earnings (PE).

Table 1: Summary Statistic of the Explanatory Variables

	Minimum	Maximum	Mean	Standard Deviation
TDTA	.005	24.527	1.065	3.654
STDTA	.004	12.662	.5069	1.844
LTDTA	0	14.866	.558	1.943
TDTE	.005	2.355	.456	.4503
ROE	-2.629	.494	.096	.208
ROA	-1.422	206.283	4.029	25.283
GPM	-1.058	1.718	.386	.253
EPS	-6.23	21.835	.489	1.659
PE	-1139.512	362.438	1.601	93.123

Or total debt to total assets (TDTA), the mean is 1.065 and the standard deviation is 3.654. The range value of TDTA is from 0.005 to 24.527. For short term debt to total assets (STDTA), the mean is 0.5069 and the standard deviation is 1.844. The range value of STDTA is from 0.004 to 12.662. While, long term debt to total assets (LTDTA), the mean is 0.558 and the standard deviation is 1.943. The range value of LTDTA is from 0 to 14.866. For total debt to total equity (TDTE), the mean is 0.456 and the standard deviation is 0.4503. The range value of TDTE is from 0.005 to 2.355.

For return on equity (ROE), the mean is 0.096 and the standard deviation is 0.208. The range value of ROE is from -2.629 to 0.494. For return on assets (ROA), the mean is 4.029 and the standard deviation is 25.283. The range value of ROA is from -1.422 to 206.283. For gross profit margin (GPM), the mean is 0.386 and the standard deviation is 0.253. The range value of GPM is from -1.058 to 1.718. For earnings per share (EPS), the mean is 0.489 and the standard deviation is 1.659. The range value of EPS is from -6.23 to 21.835. For price earnings ratio (PE), the mean is 1.601 and the standard deviation is 93.123. The range value of PE is from -1139.512 to 362.438.

Table 2: Correlation Coefficient Analysis in Average

	Independent Variable			
Dependent Variable	**TDTA**	**STDTA**	**LTDTA**	**TDTE**
ROE	.271**	.274**	.234**	.286**
ROA	.617**	.625**	.475**	-.242**
GPM	-.463**	-.494**	-.385**	-.500**
EPS	0.053	0.104	0.025	-0.079

Penerbit Akademia Baru

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

PE	-0.101	-0.126	-0.024	-.179*

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Table 2 shows the results of correlation coefficient analysis in average for the period of year 2007 to 2011. The result shows that most of the independent variables are correlated with dependent variables. The first independent variable, total debt to total assets (TDTA) have positive significant correlation with return on equity (ROE), return on assets (ROA) and negative significant correlation with gross profit margin (GPM) in the level 0.934, 0.867, 0.546, 0.271, 0.617 and -0.463 respectively. Next, short term debt to total debt (STDTA) and long term debt to total assets (LTDTA) are both positively significant correlated with return on equity (ROE), return on asset (ROA) and negatively significant with gross profit margin (GPM). Return on equity (ROE) are positively correlated with short term debt to total assets (STDTA) and long term debt to total assets (LTDTA) with the level of 0.274 and 0.234. While, return on assets (ROA) are also positively correlated with short term debt to total assets (STDTA) and long term debt to total assets (LTDTA) with the level of 0.625 and 0.475. Besides that, gross profit margin (GPM) are negatively significant correlated with all independent variables where total debt to total assets (TDTA) -0.463, short term debt to total assets (STDTA) -0.494, long term debt to total assets (LTDTA) -0.385 and total debt to total equity (TDTE) -0.5. Furthermore, total debt to total equity (TDTE) has positive significant correlation with return on equity (ROE) but negative significant correlation with return on assets (ROA), gross profit margin (GPM) and price earning (PE).

Table 3: Multiple Regressions between ROE and Independent variables in Average

Variable	Coefficient	t-statistic	Sig
Constant	-.811	-9.734	.000
STDTA	.274	.875	.383
LTDTA	.037	.173	.863
TDTA	-.120	-.263	.793
TDTE	.212	2.568	.011*
R-squared	.113		
Adjusted R-squared	0.093		
F- statistic	5.637		

*Significant at the 0.05 level

Table 3 shows the multiple regressions analysis between return on equity (ROE) and independent variables in average. The results of the analysis show that the total debt and total equity (TDTE) is significantly influenced the return on equity (ROE) of plantation sector. This implies that in order to have a higher return to equity holder, it is wise and crucial for the management to consider the whole structure of debt, which showed in this regression result, have direct influence on the equity based performance of the firm in this sector. It also means the management should not monitor and consider long term debt and short term debt separately or individually. In fact, those two debts must be monitored and maintained with a precise proportion compared to the total amount of equity hold by the firm; to ensure the shareholders will get a good return from the prudent and good management of the company's debt. While, total debt to total assets (TDTA), short term debt to total assets (STDTA) and long term debt to total assets (LTDTA) individually are not significantly influenced the return on equity (ROE). According to the result, the model will be as follow:

$$ROE = -0.811 + 0.212X_4 + 0.093$$

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

where: $X_4 = TDTE$

Table 4: Multiple Regressions between ROA and Independent variables in Average

Variable	Coefficient	t-statistic	Sig
Constant	-.811	-9.734	.000
STDTA	.126	.875	.383
LTDTA	.017	.173	.863
TDTA	.845	4.025	.000*
TDTE	-.733	-19.256	.000*
R-squared	.811		
Adjusted R-squared	0.807		
F- statistic	190.341		

*Significant at the 0.05 level

As for the results in Table 4, it shows that total debt to total assets (TDTA) and total debt to total equity (TDTE) are significantly influenced the return on assets (ROA). While, short term debt to total assets (STDTA) and long term debt to total assets (LTDTA) are not significantly influenced the return on assets (ROA). According to the result, the model will be as follow:

$$ROA = -0.811 + 0.845\ X_3 + (-0.733)\ X_4 + 0.807$$

where: $X_3 = TDTA$ $X_4 = TDTE$

The results implies that, in order to have a profitable return on assets management, the firm's management not only have to monitor and maintaining a precise proportion of total debt to total equity but also to the total amount spend on the firm's assets. The statistical results clearly show that again the prudent debt management not only leads to the good return to equity holder but also will increase the efficiency of assets utilization.

Table 5: Multiple Regressions between GPM and Independent variables in Average

Variable	Coefficient	t-statistic	Sig
Constant	-.829	-15.945	.000
STDTA	-1.010	-4.370	.000*
LTDTA	-.309	-1.900	.059
TDTA	.959	2.861	.005*
TDTE	-.377	-5.456	.000*
R-squared	.367		
Adjusted R-squared	0.353		
F- statistic	27.782		

*Significant at the 0.05 level

Unlike return on assets (ROA) and return on equity (ROE), gross profit margin (GPM) is significantly influenced by three independent variables. Table 5 shows that total debt to total equity (TDTE), total debt to total assets (TDTA) and short term debt to total assets (STDTA) are significantly influenced gross profit margin (GPM). However, long term debt to total asset (LTDTA) is not significant influence gross profit margin (GPM). According to the result, the model will be as follow:

$$GPM = -0.829 + (-1.010)\ X_1 + 0.958\ X_3 + (-0.377)\ X_4 + 0.353$$

where: $X_1 = STDTA$ $X_3 = TDTA$ $X_4 = TDTE$

Penerbit Akademia Baru

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

It can be concluded that to increase the operational performance based on gross profit margin, the firm must emphasize on the management of short term debt, which is different from overall firm's performance in terms of return on equity (ROE) and return on assets (ROA) that emphasize on monitoring the total debt.

Table 6: Multiple Regressions between EPS and Independent variables in Average

Variable	Coefficient	t-statistic	Sig
Constant	-.221	-1.560	.120
STDTA	.904	2.804	.006*
LTDTA	.437	1.963	.051
TDTA	-1.110	-2.369	.019*
TDTE	-.159	-1.880	.062
R-squared	.062		
Adjusted R-squared	0.041		
F- statistic	2.912		

*Significant at the 0.05 level

The results in Table 6 show the same scenario which highlights short term debt is influencing the earnings per share (EPS) more than other types of debt. Long term debt to total assets (LTDTA) and total debt to total equity are not significantly influenced the earnings per share (EPS). Thus, for market based performance the firm must monitor its short term financing in order to ensure investors will highly value the firms stocks. According to the result, the model will be as follow:

$$EPS = -0.221 + 0.904\ X_1 + (-1.110)\ X_3 + 0.041$$

Where: $X_1 = STDTA$ $X_3 = TDTA$

Table 7: Multiple Regression between PE and independent variables in Average

Variable	Coefficient	t-statistic	Sig
Constant	.768	7.541	.000
STDTA	-.455	-1.402	.163
LTDTA	.011	.051	.960
TDTA	.430	.911	.364
TDTE	-.177	-2.065	.040*
R-squared	.048		
Adjusted R-squared	0.026		
F- statistic	2.211		

*Significant at the 0.05 level

Table 7 shows the results of regression between price earnings (PE) and independent variables. It reported the same results as in Table 3 for return on equity (ROE) where only the total debt compared to the components of equity will affect the performance in terms of price earnings (PE). Meanings that in any circumstances the firm must not hold the amount of debt that is larger than the amount of equity of the firm. Price earnings (PE) is also one of the firm market based performance and it is based on investors' perceptions on the price of the company stocks. The inability of firm to manage the total debt will lead to negative signaling to investors which leads to decrease on stocks price. Therefore, the prudent management of debt will increase the confidence level of the investors and potential investors to invest in the sectors. While, total debt to total assets (TDTA), short term debt to total assets (STDTA) and long term debt to total

Journal of Advanced Research in Social and Behavioural Sciences
ISSN (online): 2462-1951 | Vol. 3, No. 1. Pages 34-45, 2016

assets (LTDTA) are not significant influence price earnings (PE). According to the result, the model will be as follow:

$PE = 0.768 + (-0.177)\ X_4 + 0.026$

where: $X_4 = TDTE$

5.0 CONCLUSION

This study investigates relationship and influence of capital structure on firms' performance of Malaysia plantation sector by using three accounting based measures (ROE, ROA, GPM) and two market based measures (EPS, PE). The results show that capital structure has positive relationship with firm performance measured by ROA and ROE, where this result is supported by Abu-Rub [12]. However, this result is in contrary with the study by Mohamad and Abdullah [18] where they found that ROE has negative relationship with capital structure. On the other hand, GPM have negative relationship with all four independent variables of capital structure. This result is in contrast with the study by Pratheepkanth [14] where it is found that gross profit has positive relationship with capital structure. However, the result is in line with study by Jong *et al.* [19] where profitability has negative relationship with capital structure. EPS have positive relationship TDTA, STDTA and LTDTA, while negative relationship with TDTE. This is the contradict result from previous study by Abu-Rub [12], where the result showing that EPS have positive relationship with TDTE and negative relationship with STDTA. In addition, PE has negative relationship with all four independent variables of capital structure. This result is consistent with Chinaemeren and Anthony [20] where they found that negative significant relationship on capital structure and firm's performance.

In this study, multiple regressions analysis used to test the influence of capital structure towards firms' performance. TDTA and TDTE are significantly influenced ROA. This is consistent with studies by Khan [21] and Abu-Rub [12] where TDTA is significantly influence ROA. Besides that, this is also consistent with study by Salteh *et al.* [22], where that TDTA and TDTE are significantly influenced ROA. ROE is also significant influence by TDTE. This result is supported by Nawaz *et al,* [13] where capital structure significantly influence ROE. However, this result is contradicted with study by Ebaid [23] and Saeedi and Mahmoodi [24] which found that there is no significant relationship between ROE capital structure. STDTA, TDTA, TDTE are significantly influenced GPM and this is consistent with Khan [21] where capital structure is significantly influence gross profit margin (GPM). STDTA and TDTA are significant influence earnings per share (EPS). This is consistent with study by Abu-Rub [12] where it found that EPS is significant influence by TDTA. This result is not consistent with the study by Salteh *et al.* [22] where it found that EPS is not significant influence by capital structure. In addition TDTE is significant influence PE. This result is consistent with the study by Chowdhury and Chowdhury [25] where capital structure is significantly influenced firm's market value. In a nutshell, capital structure is significantly influenced firms' performance of plantation sector in Malaysia. It is suggested that the firms in this sector should have a prudent and wise management of total debt to maintain the overall accounting performance, and to emphasize a close monitoring on especially short term debt to have a sustainable market based performance.

REFERENCES

[1] Saad, Noriza Mohd. "Corporate governance compliance and the effects to capital structure in Malaysia." *International Journal of Economics and Finance* 2, no. 1 (2010): 105.

[2] Modigliani, Franco, and Merton H. Miller. "The cost of capital, corporation finance and the theory of investment." *The American economic review* 48, no. 3 (1958): 261-297.

[3] Myers, Stewart C., and Nicholas S. Majluf. "Corporate financing and investment decisions when firms have information that investors do not have." *Journal of financial economics* 13, no. 2 (1984): 187-221.

[4] CJensen, M., and W. Meckling. "Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure." *Journal of Financial Economics* 3 (1976): 305-360.

[5] Zeitun, Rami, and Gary G. Tian. "Capital structure and corporate performance: evidence from Jordan." *Australasian Accounting, Business and Finance Journal* 1, no. 4 (2007): 3.

[6] Bistrova, Julia, Natalja Lace, and Valentina Peleckienė. "The influence of capital structure on baltic corporate performance." *Journal of Business Economics and Management* 12, no. 4 (2011): 655-669.

[7] Roden, Dianne M., and Wilbur G. Lewellen. "Corporate capital structure decisions: evidence from leveraged buyouts." *Financial Management* (1995): 76-87.

[8] Abor, Joshua. "The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana." *The journal of risk finance* 6, no. 5 (2005): 438-445.

[9] Ong, Tze San, and Boon Heng Teh. "Capital structure and corporate performance of Malaysian construction sector." *International Journal of Humanities and Social Science* 1, no. 2 (2011): 28-36.

[10] Malaysia, Bank Negara. "Bank Negara annual report." *Kuala Lumpur* (2011).

[11] Unit, Economic Planning. "Ninth Malaysia Plan 2006-2010." *Percetakan Nasional Malaysia Berhad, Kuala Lumpur* (2006).

[12] Abu-Rub, Nour. "Capital structure and firm performance: Evidence from Palestine stock exchange." *Journal of Money, Investment and Banking* 23, no. 1 (2012): 109-117.

[13] Nawaz, Asad, Rizwan Ali, and Muhammad Akram Naseem. "Relationship between capital structure and firms performance: a case of Textile sector in Pakistan." *Global Business and Management Research: An International Journal* 3, no. 3&4 (2011): 270-275.

[14] Pratheepkanth, Puwanenthiren. "Capital structure and financial performance: Evidence from selected business companies in Colombo stock exchange Sri Lanka." *Researchers World* 2, no. 2 (2011): 171.

[15] Ariff, F. F., M. N. Mamat. "Hubungan antara Industri bagi sektor Pertanian Di Malaysia." *Prosiding Perkem* 7, (2012): 269-276.

[16] Jackson, Winston. *Methods: Doing social research*. Prentice Hall Allyn and Bacon Canada, 1999.

[17] Mohan, S. *Research Methodology in Commerce*. Deep and Deep Publications, 2007.

[18] Mohamad, N. E. A. B., and F. N. B. A. Abdullah. "Reviewing relationship between capital structure and firm's performance in Malaysia." *International Journal of Advances in Management and Economics* 1, no. 4 (2012): 151-156.

[19] De Jong, Abe, Rezaul Kabir, and Thuy Thu Nguyen. "Capital structure around the world: The roles of firm-and country-specific determinants." *Journal of Banking & Finance* 32, no. 9 (2008): 1954-1969.

[20] Chinaemerem, Osuji Casmir, and Odita Anthony. "Impact of capital structure on the financial performance of Nigerian firms." *Arabian Journal of Business and Management Review (OMAN Chapter)* 1, no. 12 (2012): 43.

[21] Khan, Abdul Ghafoor. "The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan." *International Journal of Accounting and Financial Reporting* 2, no. 1 (2012): 245.

[22] Salteh, Heydar Mohammadzadeh, Elham Ghanavati, Vahid Taghizadeh Khanqah, and Mohsen Akbari Khosroshahi. "Capital structure and firm performance; Evidence from Tehran Stock Exchange." *International Proceedings of Economics Development & Research* 43 (2012): 225-230.

[23] El-Sayed Ebaid, Ibrahim. "The impact of capital-structure choice on firm performance: empirical evidence from Egypt." *The Journal of Risk Finance*10, no. 5 (2009): 477-487.

[24] Saeedi, Ali, and Iman Mahmoodi. "Capital structure and firm performance: Evidence from Iranian companies." *International Research Journal of Finance and Economics* 70 (2011): 20-29.

[25] Chowdhury, Anup, and Suman Paul Chowdhury. "Impact of capital structure on firm's value: Evidence from Bangladesh." *Business and Economic Horizons* 3, no. 3 (2010): 111-122.