

CAPITAL STRUCTURE, INDUSTRY INFLUENCE, AND FINANCIAL PERFORMANCE: EVIDENCE FROM SRI LANKA

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Abstract

This study examines the impact of capital structure together with their industry influence on financial performance of the companies listed in the Land and Property, Plantation, Beverage Food and Tobacco sectors of the Colombo Stock Exchange (CSE) for a period of five years from 2011 to 2016. Data for the study was collected from published annual reports and the sample consists of 51 companies in these sectors. Regression based capital structure models were employed to investigate the phenomenon. The results reveal that the return on assets ratio is significantly correlated with all the capital structure proxies and the net profit margin has significant correlations with the long term debt to funds ratio and total debt to funds and short term debt ratio. The long term debt to funds ratio and the total debt to funds ratio are significant in determining the return on assets ratio. The long term debt to funds ratio has a significant relationship with the return on equity ratio. Moreover, industry in which a company operates has a significant impact on the level of financial performance. The findings of the study are important for managers, existing and potential investors and future researchers. Managers should focus on the results of the study on the impact of capital structure on financial performance when determining the sources of financing to minimise the cost of capital and to enhance profitability. The investors should focus on the same when making investment decisions and identifying the impact of the capital structure on return enables them to make informed decisions.

Keywords: Capital structure, financial performance, equity, long term debt, short term debt, assets

Introduction

Capital structure plays a vital role in corporate finance where it deals with the proportion of funds obtained from different parties either from equity providers or debt providers. When the cost of finance increases, the value of the company for the shareholders decreases which in turn will increase the level of risk faced by the equity holders. Debt derives tax benefits to the company causing the cost of finance to decrease but due to increase in debt risk would increase the cost of equity finally reflecting no optimal capital structure (Modigliani and Miller, 1963). However, maintaining an optimal capital structure that maximizes benefits is an important consideration of any company as each level of leverage has its own pros and cons. The relationship between the capital structure and financial performance is an area which has received attention in the finance field as capital structure choice is an important decision of a company. The capital structure decides the nature of control of the company and the parties who will exert that control; whether it is the equity holders or the debt holders. The firms have multiple opportunities to finance their assets in the current world and the capital structure of a company depends on the decisions of the top management (Grossman and Hart, 1982).

According to Sakar and Bedir (2019) when the objective of the company is to maximize the shareholder wealth, a mix of financing is important as it could result in maximizing the market value of shares.

Modigliani and Miller (1963) stated capital structure as the mixture between debt and equity that the firm uses in its operations and showed the impact of capital structure on a firm's performance. Jensen and Meckling (1976) discussed the relationship between capital structure and firm performance. Empirical studies have been undertaken in both developed and developing countries to identify the impact of capital structure on firms' performance. The empirical research findings on this field are inconclusive with both positive (Rahman et.al, 2019; Nimalathasan and Brabete, 2010; Nirajini and Priya, 2013), negative (Hamidon and Ranjani, 2015; Mohamad and Abdullah, 2012; Pratheepkanth, 2011; Perera and Wijesinghe, 2017) affiliations and the present study attempts to provide a further explanation by analysing the impact of capital structure on financial performance of Sri Lankan firms.

The study expects to address this issue by covering the major industrial sectors; Land and Property (LandP), Plantation and Beverage Food and Tobacco (BFT) with a sample frame of 5 years from 2011 to 2016 and also analyses industrial effects which have been neglected in most of the previous studies. The selection of the three sectors was primarily led by the factor of unavailability of sufficient literature covering these sectors where a sufficient amount of research has been conducted on the sectors such as the manufacturing sector and the trading sector. The lack of prior studies on the selected sectors and the non-consistency in the findings of prior research justify the study. Consequently, the study addresses:

- What is the impact of capital structure on the financial performance of the companies listed in the LandP, Plantation and BFT sectors of the CSE?

The main objective of the study is to investigate the impact of capital structure on the financial performance of the selected companies listed in the LandP, Plantation and BFT sectors of the CSE during 2011 to 2016.

Literature Review

This section focuses on reviewing the theoretical findings on capital structure and reviewing the empirical findings on the impact of capital structure on financial performance in the international context and the Sri Lankan context.

Theoretical Review

This section focusses on reviewing the important theoretical findings related to the study with special consideration of towards the capital structure theories; viz., Modigliani and Miller theories, trade-off theory and pecking order theory in order to identify their relation to the research topic and to develop a strong theoretical foundation for the review of literature.

Modigliani and Miller theories

The capital structure irrelevance proposition developed by Modigliani and Miller (1958) is the first theory on capital structure, which initiated to the systematic capital structure theories and it states that the value of a levered firm is similar to an unlevered firm if the operating profits and future prospects are similar and in the absence of taxes, asymmetric information, bankruptcy costs and the availability of an efficient market. In the real world, companies have to pay taxes where interest paid on debt is tax deductible. Modigliani and Miller (1963) states that the firm value increases when the debt composition increases by considering corporate

taxes. However, it states that the value of the company is irrelevant as per the debt equity structure of the company. The discussion of the capital structure strengthened with the findings of Jensen and Meckling (1976) which state that capital structure affects firm performance. Miller (1977) stated that the corporate taxes are advantageous for a firm due to the tax advantages and at the same time personal taxes are disadvantageous and hence the advantages offset the disadvantages making the companies and the investors indifferent to the choice of debt and equity financing.

Trade-off theory

According to Myers (1977) the company has an optimal capital structure and they always try to move towards this level. It is specified that the capital structure choice is relevant for a firm as the use of debt creates tax benefits and bankruptcy costs where a trade-off is observed between these. The trade-off theory states that an optimum capital structure can be achieved by a firm in a situation where the marginal benefit of an additional unit of debt is exactly similar to the marginal cost of an additional unit of debt (Fama and French, 2005; Harris and Raviv, 1991; Mira and Gracia, 2003; Dewasiri and Weerakoon, 2016). The dynamic trade-off theory states that a firm can adjust its leverage target based on a comparison between the benefit of adjusting its capital structure against the adjustment cost (Brennan and Schwartz, 1978; Leland, 1994; Dudley, 2007; Ovtchinnikov, 2010).

Pecking Order Theory

Myers and Majluf (1984) state that a firm will finance its requirements initially from retained earnings and then consider debt sources, where equity is considered as the last source when they cannot raise funds from equity according to the pecking order theory. The pecking order theory highlights that the leverage of a firm mirrors the amount of internal and external fund requirements of a company and it is not required to maintain an exact target of leverage choice. Myers (2001) points out that a firm initially starts from safe finance sources and then moves to riskier sources based on pecking order theory but in a situation where managers are more aware of the true condition of the company than the investors, equity is less preferable in raising funds as the investors will value equity at a lower rate. Fama and French (2005) state that the companies prefer to finance from internal sources (retained earnings) than from external sources but it is not advisable to reduce dividends to use for financing requirements.

Empirical Review

This section focusses on reviewing the empirical findings on the impact of capital structure on financial performance in the international context and the Sri Lankan context.

The impact of capital structure on the firm's performance has been investigated by several empirical studies and these studies have presented mixed results. Many studies have suggested a negative relationship between the capital structure and firm performance (Kester, 1986; Titman and Wessels, 1988; Wald, 1999). Zeitun and Tian (2007) state that there are several indicators of leverage including the maturity of debt and tax rate that affiliate with the firm's performance where these gauges of capital structure should be examined to identify the exact impact they create on firm's performance. The achievement of optimal capital structure by the finance managers minimizes the cost of capital of the firm while maximising the firm's profitability and thereby the performance and value of the firm. Titman and Wessels (1988) state that different attributes including the asset structure, non-debt tax shields, growth, uniqueness, industry classification, size, earnings volatility, and profitability affect the leverage choice of a firm. For instance, Grossman and Hart (1982) argued that the use of higher levels

of debt motivate managers to take better investment decisions and work harder while reducing on the job requisites as bankruptcy results in several disadvantages to managers. Further, Jensen (1986) argued that higher levels of debt reduce agency costs by reducing the cash flow that the managers can spend at their discretion. Sakr and Bedeir (2019) argued that even though the maintenance of higher leverage than appropriate levels in capital structure increases the value of firms in the short-run, will eventually expose the firm to higher financial distress.

Sheikh and Wang (2013) have shown that all measures of capital structure; total debt ratio, long and short-term debt ratio are negatively related to ROA using data of non-financial firms listed in the Karachi Stock Exchange. Ebaid (2009) conducted a research on non-financial Egyptian listed firms and argued that short-term debt to total assets has significant negative relationship with ROA and a significant relationship doesn't exist between long-term debt (LTD) and ROA. Short-term debt (STD) and long-term debt (LTD) have significant relationships with a firm's performance measured by ROE. Dawar (2014) analysed the data of Indian listed companies and observed that there is a significant negative relationship between both STD and LTD and firm profitability (ROA and ROE) by controlling factors such as firm size, firm age, tangibility, sales growth, liquidity and advertising. Foo, et al. (2015) studied the effect of capital structure measured by TD, STD, and LTD on the performance of Oil and Gas firms in Malaysia using panel data of 12 companies over the period 2003-2013; the performance was measured using ROE, ROA, and GM. The results showed a negative impact of the capital structure on the performance when measured by ROE; there was no impact at all through a non-significant relationship for capital structure with performance when measured by both ROA and gross margin.

In contrast, many studies showed a positive relationship between capital structure and performance (Champion, 1999; Gosh et al., 2000; Goyal, 2013). Hadlock and James (2002) indicated that firms with high levels of leverage results in high profitability levels which is consistent to the trade-off theory of capital structure. Abbadì and Rub (2012) stated a positive affiliation between capital structure and firm performance measured by ROA and ROE together with three other indicators. Debt to assets ratio and debt to equity ratio are used as indicators of capital structure together with two other indicators where the research was conducted for a sample of 28 companies listed in the Palestinian Stock Exchange (PSE) for a period of five years. A positive relationship between debt to assets ratio and ROE is observed by Abor (2005), through a study which measured the relationship between total debt and profitability based on a set of companies listed in the Ghana Stock Exchange (GSE) and the researcher concludes that short term debt is an important source of financing for companies and that the firms which are highly profitable depend a lot on debt as their key financing source. Mujahid and Akhtar (2014) have shown that there is a positive significant relationship between ROE and the debt to equity ratio and shareholder wealth. He observed that earning per share (EPS) is also positively related with the debt to equity ratio and shareholder wealth. Kakanda et al. (2016) also highlight a positive and significant relationship between a firm's capital structure and corporate financial performance measured by ROE based on a research study conducted on the listed companies dealing with consumer goods companies listed in the Nigerian Stock Exchange (NSE). Rahman et al. (2019) reveals that the debt ratio and equity ratio have a significant positive impact but the debt to equity ratio has a significant negative impact on ROA. Moreover, the equity ratio has a significant positive impact but the debt to equity ratio has a significant negative impact on ROE.

The studies conducted in the Sri Lankan contexts have also yielded in mixed results. Kajananthan and Nimalthasan (2013) performed a study on a selected set of manufacturing companies listed in the CSE for a period of five years and concluded that there is no significant

correlation between the proxies for profitability and the independent variable the debt to equity ratio. The study reveals that gross profit and ROE are significantly correlated with the debt to assets ratio. Pratheepan and Weerakoon (2016) specify that there is a statistically significant relationship between leverage and financial performance. In contrast, Dilrukshi and Thilakarathne (2016) state that there is an insignificant negative relationship between debt to equity ratio and ROA. Nirajini and Priya (2013) suggest that capital structure significantly influence the financial performance of trading companies and that there is a positive relationship between the debt to asset ratio and financial performance indicators whereas a negative relationship exists between debt to equity ratio and financial performance variables. Hamidon and Ranjani (2015) conclude that there is a negative correlation between the independent variables debt to equity ratio and debt to assets ratio with the dependent variables NPM and ROA. Abeyrathne and Thilakerathne (2016) state that there is a negative relationship between capital structure choice and firm performance of diversified companies in Sri Lanka as there is a significant negative relationship between the long term debt to asset ratio with both ROA and ROE ratios. Moreover, Perera and Wijesinghe (2017) state that there is a negative relationship between debt to assets ratio and long term debt to assets ratio and NPM, ROE and ROA. Ajanthan and Arulvel (2013) state that debt to equity ratio displays a significant relationship with the NPM whereas other relationships are insignificant with lower explanatory power. The findings of the previous researchers have shown different conclusions about the impact of the capital structure on the firms' performance and this confusion of findings has created a requirement for further investigation on this research topic.

Research Methodology

As emphasized by Dewasiri et al. (2018), this study is conducted through the quantitative methodology to investigate a quantitatively bounded research question. The companies which have published annual reports and have positive revenue for the considered period were selected for the study and the elimination of companies with negative return does not have a significant impact on the study. For conducting the study, a sample of 51 out of 58 companies was considered and this comprises 13, 18 and 20 companies listed in the Land, Plantations and BFT sectors respectively. The selection of the three sectors was based on the importance and contribution of these sectors to the Sri Lankan economy. The following basic model is developed to investigate the impact of capital structure on financial performance.

$$FP_f = \beta_0 + \beta_i \sum_{i=1}^n X_i + \beta_j \sum_{j=1}^{n-1} D_j + \beta_k \ln TA + \varepsilon$$

X_i – Capital Structure proxies, measured by four ratios
 Long Term Debt to Assets (LTDA)
 Long Term Debt to Total Funds (LTDF)
 Total Debt to Assets (DA)
 Total Debt to Total Funds and Short Term Debt (DF)
 FP_f – f^{th} Firm Financial Performance

$\beta_0, \beta_i, \beta_j, \beta_k$ - Regression coefficients
 D_j – Industrial type,
 D_1 – Land and property sector
 D_2 – Plantation sector
 ε - Error term

Dummy variables are included to investigate any industrial effects. The natural logarithm of total assets is incorporated as a control variable to account for the size of the firms measured by the total value of assets. Six alternative models were developed considering each dependent variable separately. The selection of variables for the capital structure and financial performance is done based on the previous research studies. The Table 2 depicts a summary of variables used, definitions and the studies in which the selected proxies have been used.

Table 1. Alternative models

Model	Equation
Model 1	$NPM = \beta_0 + \beta_1 LTDA + \beta_2 LTDF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$
Model 2	$ROE = \beta_0 + \beta_1 LTDA + \beta_2 LTDF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$
Model 3	$ROA = \beta_0 + \beta_1 LTDA + \beta_2 LTDF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$
Model 4	$NPM = \beta_0 + \beta_1 DA + \beta_2 DF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$
Model 5	$ROE = \beta_0 + \beta_1 DA + \beta_2 DF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$
Model 6	$ROA = \beta_0 + \beta_1 DA + \beta_2 DF + \beta_3 D_1 + \beta_4 D_2 + \beta_5 \ln TA + \varepsilon$

Table 2. Definition of Variables

Variable	Proxy	Definition	Other studies that used the same variable
Capital Structure	LTDA	Compares the long term debt against the total assets	Ahmad and Mohsin, 2016; Zeitun and Tian, 2007; Salim and Yadav, 2012; Mohamad and Abdullah, 2012; Nirajini and Priya, 2013
	LTDF	Compares total long term debt against the total capital employed	Pratheepkanth, 2011; Hamidon and Ranjani, 2015
	DA	Comapres total debt (short term and long term debt) against the total assets	Anandasayanan and Subramniam, 2015; Soumadi and Hayajneh, 2012; Zeitun and Tian, 2007; Rouf, 2015; Salim and Yadav, 201
	DF	Compares total debt against the total funds comprising of long term, short term debt and equity	Nirajini and Priya, 2013; Salim and Yadav, 2012
Financial Performance	NPM	Net income as a percentage of the sales income	Pratheepkanth, 2011; Hamidon and Ranjani, 2015; Anandasayanan and Subramniam, 2015; Nirajini and Priya, 2013; Nimalathasan and Brabete, 2010
	ROE	Profit after tax as a percentage of equity	Vijayakumaran, 2015; Soumadi and Hayajneh, 2012; Vatavu ,2015; Perera and Wijesinghe, 2017; Mohamad and Abdullah, 2012; Dewasiri et al., 2019; Baker et al., 2019
	ROA	Return as a percentage of the total assets	Ahmad and Mohsin, 2016; Hamidon and Ranjani, 2015; Rouf, 2015; Pratheepkanth, 2011; Mohamad and Abdullah, 2012; Dewasiri and Weerakoon, 2015

Data Analysis and Discussion

The data analysis is conducted in three stages. First, descriptive statistics, normality tests, and unit root tests are presented. The results of the Unit root tests revealed that all the variables are in stationary in its level (I_0), hence the level variables were considered for the analysis. The findings of the Jargue-Bera normality tests revealed that errors terms are normally distributed. Second, the regression models are employed to investigate the phenomenon. Finally, regression assumptions are tested on the residuals.

Descriptive statistics and correlation of variables

Table 3 presents the descriptive statistics of the variables used in the study. According to the descriptive statistics, the mean NPM of the selected sample is recorded at 51 percent, which indicates good financial performance of the companies listed in the sectors considered as a whole. The average ROA is recorded at 7 percent representing the firms' ability to generate return using average assets whereas the ROE is 15 percent indicating the usage of the equity in generating return. On average, the long term debt to assets and total debt to assets are recorded respectively at 19 percent and 26 percent and these indicate that the assets of most of the companies are financed mainly from equity.

Table 3. Descriptive Statistics

Descriptive	NPM	ROE	ROA	LTD/A	LTD/ (E +LTD)	(LTD+ STD)/A	(LTD+STD)/ (E+STD+LTD)
Mean	0.51	0.15	0.07	0.19	0.24	0.26	0.29
Minimum	(1.92)	(0.78)	(0.21)	0.00	0.00	0.00	0.00
Maximum	23.17	4.08	0.60	3.81	1.63	3.97	1.31
St. Deviation	1.72	0.45	0.10	0.28	0.23	0.30	0.23

The Pearson correlation between each pair of independent and dependent variable is calculated to identify the relationship and Table 4 shows the covariance matrix of the indicators used.

It is observed that all the capital structure proxies have negative correlations with each of the financial performance measures except the positive correlation of 0.03 between ROE and the long term debt to funds ratio but that is insignificant. ROA has significant correlations with all the four capital structure measures which are visible to be higher than all the correlations calculated between each of the other variables

Table 4. Covariance Matrix

	NP	ROE	ROA	LD/A	LD/(E+LD)	TD/A	TD/(E+TD)	Ln TA
NP	1							
ROE	-0.02 (0.77)	1						
ROA	0.1 (0.14)	.61** (0.00)	1					
LD/A	-0.11 (0.08)	-0.05 (0.41)	-0.22** (0.00)	1				
LD/(E+LD)	-0.19** (0.00)	0.03 (0.62)	-0.38** (0.00)	0.68** (0.00)	1			
TD/A	-0.11 (0.09)	-0.07 (0.26)	-0.29** (0.00)	0.96** (0.00)	0.71** (0.00)	1		
TD/(E+TD)	-0.18** (0.00)	-0.03 (0.63)	-0.43** (0.00)	0.62** (0.00)	0.92** (0.00)	0.74** (0.00)	1	
Ln TA	0.01 (0.84)	-0.17** (0.00)	-0.16* (0.01)	-0.16* (0.01)	-0.20** (0.00)	-0.18** (0.00)	-0.20** (0.00)	1

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

Regression Results

During the data analysis process, a total of six regression models were developed in order to analyze the impact of four key explanatory variables on three performance measures. In the first three models each dependent variable is regressed against the capital structure indicators which consider only the long term debt portion and the latter three models consider total debt including both short term and long term debt.

Table 5 presents the summary details of models 1, 2 and 3 and Table 6 represents the summary details of models 4, 5 and 6. Model 1 is significant at 0.1 level and it can be used to explain 8 percent of the variation of NPM. The two ratios LTDA and LTDF are insignificant and the dummy variable 1 is significant in determining NPM whereas the dummy variable 2 is insignificant. The regression results of model 2 reveal that the model is significant with the significance value of 0.000 and F-value is 4.991. The independent variables explain only 9.1 percent of the total variation of ROE. The independent variable, LTDA is statistically insignificant in determining ROE. Significant dummy variables show that the industry matters in the financial performance measured by ROE. The model 3 is significant at 0.05 level and the predicting ability of the model is 22.3 percent. The LTDA ratio used in the model has no significant impact on ROA. LTDF ratio is significant at 0.05 level and can be used to determine ROA. Significant dummy variables imply that the industry affects the level of performance measured by ROA.

Table 5. Coefficients and Summary – Model 1, 2 and 3

Details	Model 1		Model 2		Model 3	
	Coefficient	T - Stat	Coefficient	T - Stat	Coefficient	T - Stat
Int.	1.05	1.54	0.54**	3.06	0.25**	6.79
LTDA	0.12	0.24	-0.2	-1.47	0.026	0.93
LTDF	-1.21	-1.52	0.57**	2.77	-0.16**	-3.7
LnTA	-0.03	-0.83	-0.02*	-1.96	-0.01**	-3.56
D1	0.88**	3.28	-0.16**	-2.35	-0.03**	-2.3
D2	0.09	0.26	-0.32**	-3.60	-0.04**	-2.28
F Val.	4.307		4.991		14.334	
Sig. F	0.001		0.000		0.000	
R Sq.	0.080		0.091		0.223	

Table 6. Coefficients and Summary – Model 4, 5 and 6

Details	Model4		Model 5		Model 6	
	Coefficient	T - Stat	Coefficient	T - Stat	Coefficient	T - Stat
Int.	0.94	1.35	0.66**	3.63	0.29**	7.86
DA	0.29	0.56	-0.16	-1.2	0.02	0.71
DF	-0.89	-1.13	0.18	0.89	-0.21**	-5.08
LnTA	-0.02	-0.64	-0.02**	-2.42	-0.01**	-3.99
D1	0.84**	3.09	-0.16**	-2.23	-0.04**	-3.09
D2	-0.12	-0.38	-0.19**	-2.33	-0.03**	-2.13
F Val.	4.020		3.668		19.329	
Sig. F	0.002		0.003		0.000	
R Sq.	0.075		0.069		0.280	

** Coefficient is significant at 0.05 level (2-tailed) * Coefficient is significant at 0.1 level (2-tailed) for Table 5 and 6.

Model 4 is significant at level 0.05 and the model predicts 7.5 percent of the variation of NPM. DA ratio and DF ratio are insignificant in determining NPM. The dummy variable 1 is significant in determining NPM whereas dummy variable 2 is insignificant. The regression results of model 5 reveal that the model is significant at 0.05 level and 6.9 percent of the

variation of the dependent variable is explained by the developed model. DA ratio and DF ratio are insignificant in determining ROE. Significant dummy variables imply that the industries have a significant impact on the performance as measured by ROE. Model 6 is significant at 0.05 level and the F-value is 19.329. The model can be used to predict 28 percent of the variation of ROA. DA ratio is insignificant in determining the value of ROA whereas the DF ratio, natural logarithm of total assets and dummy variable 2 are significant.

Model 6 which investigates the impact of DA ratio and DF ratio on ROA, has the highest R squared value of 28 percent and the model 3 which investigates the impact of LTDA and LTDF on ROA has an R squared value of 22 percent. This implies that the variation of ROA can be explained by using capital structure proxies better than the other two indicators. The variation of both NPM and ROE can be better explained by the models with capital structure proxies which include only long term debt observed by higher R squared values of models 1 and 2 than the models 4 and 5 whereas the variation of ROA is better explained by the models which include total debt. The dummy variables are significant in models 2, 3, 5 and 6. This implies that the industry in which the firms operation affects the level of financial performance as measured by the ROE and ROA. Eventhough, all the models used in the study are significant, the explanatory power is low reflecting that there are many other factors affecting financial performance. The further findings of the diagnostic results revealed that regression assumptions are not violated. For instance, results of the Breusch-Godfrey serial correlation LM test revealed that there is no serial autocorrelation in the residuals at 1 percent significant level. Moreover, findings of the Breusch-Pagan-Godfrey F-test revealed that residuals are homoscedastic at 1 percent significant level.

Discussion of Empirical Results

That the ROA ratio has a significant relationship with all the capital structure proxies used in the study and this reveals that ROA ratio has a significant relationship with capital structure. This conclusion is consistent with the findings of some previous studies (Ahmad and Mohsin, 2016; Ahmad et al., 2012; Nirajini and Priya, 2013; Rouf, 2015; Tailab, 2014; Vijayakumaran, 2015). A statistically significant relationship between the DA ratio and ROA ratio is concluded in the study and it supports the findings of previous research studies (Ahmad and Mohsin, 2016; Ahmad et al., 2012; Nirajini and Priya, 2013; Rouf, 2015; Tailab, 2014). A significant relationship between ROA ratio and Long Term Debt to Assets ratio is concluded in the study which is consistent with the observations of previous studies as well (Abeyrathne and Thilakerathne, 2016; Fernando and Jayamaha, 2016). Significant correlations are observed between the NPM and each of the Long Term Debt to Funds ratio and Total Debt to Funds ratio. The results reveal that Debt to Assets ratio is insignificantly correlated with NPM and this is inconsistent with the findings of the previous studies (Anandasayanan and Subramniam, 2015; Hamidon and Ranjani, 2015; Nimalathan and Brabete, 2010; Nirajini and Priya, 2013). ROE does not have a significant relationship with capital structure as none of the relationships between ROE and capital structure proxies are significant which is consistent with some previous studies (Saeedi and Mahamoodi, 2011; Vijayakumaran, 2015). However, most of the researchers have concluded the existence of a significant relationship between capital structure and financial performance (Abeyrathne and Thilakerathne, 2016; Kajanathan and Nimalathan, 2013; Nirajini and Priya, 2013; Soumadi and Hayajneh, 2012).

Conclusion and Implications to the Practice

The variation of both NPM and ROE can be better explained by the models with capital structure indicators which include only long term debt than the models which include total debt.

But, a better explanation of the variation of ROA is provided by the models with capital structure proxies which include total debt than the proxies that include only long term debt. Even though, all the models used in the study are significant, the explanatory power is low reflecting that there are many other factors affecting the financial performance not addressed by the study. Long term debt to funds ratio has a significant impact on ROA and ROE whereas long term debt to assets ratio can be concluded as not having a significant impact on any of the dependent variables; NPM, ROE and ROA. Total debt to assets ratio has an insignificant impact on all the three financial measures; NPM, ROE and ROA. Total debt to funds and short term debt ratio has a significant impact on ROA whereas it has an insignificant impact on NPM and ROE. None of the capital structure proxies used in the study has a significant impact on NPM. ROE ratio has no significant relationship between any of the capital structure indicators whereas ROA has significant relationships with all the independent variables. It can be concluded that ROA is a better indicator of financial performance and long term debt to funds ratio and total debt to funds and short term debt ratio are better indicators of capital structure in analyzing the relationship between capital structure and financial performance. The industry of operation of a company affects the level of financial performance as measured by NPM, ROE and ROA.

The findings of the study are important for managers, existing and potential investors and future researchers. Managers should focus on the results of the study on the impact of capital structure on financial performance when determining the sources of financing, minimising cost of capital, enhancing profitability and thereby the value of the firm. The investors should focus on the same when making investment decisions enabling them to identify the impact of capital structure on return.

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