Impact of Financial Leverage on Firm Profitability: Evidence from Non-Financial Firms Listed in Colombo Stock Exchange- Sri Lanka

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ABSTRACT

Purpose: The aim of this research is to find out the impact of financial leverage on firm profitability of the listed non-financial firms in Sri Lanka.

Design/Methodology/Approach: Total of 290 companies listed on Colombo Stock Exchange (CSE) is considered as the population and the sampling process excluded Banking, Finance, and Insurance companies as they have identical financial characteristics. The study analyzed 82 non-financial firms listed in CSE from year 2013 to 2017. Debt to equity ratio and liquidity were considered as independent variable. Further, sales growth and firm size were considered as control variables. Return on assets of the firm measures the profitability of the firms and incorporated as dependent variable. The study used panel regression analysis, descriptive tests, and correlation analysis.

Findings: Fixed effect model reveals that there is a negative significant impact of financial leverage on return on assets of the non-financial firms listed in CSE. The study elaborates a high influence on return on assets due to the independent variables considered in the study since the R2 value becomes 85.43%.

Originality: The review of the literature reveals that there are limited number of studies have been carried out incorporating all the non-financial firms in recent past considering the time period of 2013 - 2017. Therefore, this study would provide more insights including the firms' performance during these periods. Further, it was identified that there are contradictions in the previous findings. Therefore, the study provides more insights to examine the performance of non-financial firms due to the incorporation of debt capital during the period of 2013 – 2017.

Theoretical and Policy implications: M&M 1963, agency cost theories are providing the arguments over the mix of debt-to-equity proportion in the organizational capital structure. This study considers the non-financial firm's performance according to its capital structure. This can be justified that the operational structure of financial and non-financial firms is significantly different. Therefore, the capital structure incorporation would provide significantly different impacts in between financial and non-financial firms. Therefore, the study adds more value by analyzing only the performance of non-financial firms based on its financial leverage.

Research limitations/ Future research directions: The study uses only the secondary data and the five-year period from 2013 – 2017. Future studies can be done increasing the sample size and employing different methods such as case studies, that would provide more insights to the findings of this study.

I. Introduction

There are various sources available to raise funds for organizations. Equity funding and debt funding are the two major sources exists. The funding sources provide drastically different types of costs and benefits to its capital providers. Therefore, the right decision over the appropriate source of funding by the management of finance is essential by assessing the costs and benefits among the alternatives. Equity funding provides funds for organizations through selling company's shares. This enables the fund providers to become the owners of the organization. Debt funding refers that companies take loans for its fund requirements. The financial leverage is therefore defined as the expertise of an

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organization to deploy its borrowed money (Javeed & Tabassam, 2018). The inclusion of more debt funding into the firm capital structure would create more value to organizations in the situation where tax payment is a regulatory requirement (Modigliani & Miller, 1958). However, maintaining the optimum level of mix in-between debt and equity also another strategy followed by the management (Kale, 2014).

In Sri Lanka, Securities Exchange Commission (SEC) regulate the debt market of corporate. Corporate papers, bonds and debentures are the main categories of debt securities traded in Sri Lanka. The public debt department of the Central Bank of Sri Lanka issues the government securities; treasury bills and treasury bonds are those two main types. The regulations imposed by the governing bodies regarding debt capital, prevent the companies from financial distress (Nanayakkara & Azeez, 2014). However, it is about the management decision to use appropriate strategies to get the benefit out of the debt capital. Therefore, the effective management of debt can influence the performance of companies (Bei & Wijewardana, 2012; Kale, 2014; Javeed & Tabassam, 2018). The aim of the companies to maximize their owner's wealth and that could be achieved by appropriate use of debt and equity proportion. However, during the period of global recession in 2008-2009 and in following years, it was reported that around 67 public listed companies financially bankrupted within Sri Lanka (Nanayakkara and Azeez, 2014). Among those around 90% of the companies are non-financial firms due to relatively lack of regulatory requirements compared to financial firms.

Several authors analyzed the financial leverage impact on the corporate performance in Sri Lanka (For example, Sivalingam & Kengatharan, 2018; Ishari & Abeyrathna, 2016; Samarakoon, Kumara & Gunarathne, 2014; Leon, 2013; Bei & Wijewardana, 2012). Most of the prior works concerned the financial leverage impact in banking industry and some of the prior work analyzed specifically sectors such as

manufacturing. Although, Bei and Wijewardana, (2012) consider the overall non-financial firms listed in the Colombo Stock Exchange (CSE) there is still a research gap in the recent past incorporating all the non-financial firms over the financial leverage and firm performance. Thus this study explores the impact of financial leverage on firm profitability of the non-financial firms listed in Sri Lanka.

In addition to the governance from SEC, Monetary Board of Central Bank of Sri Lanka, provides guidelines to monitor the financial leverage level of the financial institutions within Sri Lanka in terms of leverage ratio under the Basel III, since the financial strength of the financial institutions is crucial for an economy to be stable. Regulatory bodies are more concern about the performance of the financial institutions compared to the non-financial institutions (Bei & Wijewardana, 2012). Therefore, this study identifies that there are chances of business failures that could occur in relation to non-financial firms due to the lack of close monitoring processes thereby increases management opportunistic behavior. Further, there is sufficient evidence that non-financial firms accounted the illiquidity position than financial firms which is about 90% (Nanayakkara & Azeez, 2014). Thus, this study aims to explore the effect of financial leverage on firm profitability with special reference to non-financial firms listed in Sri Lanka. Also, the study aims to find out the financial leverage impact on return on assets of non-financial firms listed in Sri Lanka. The findings of this study could provide directions to firm's managements in managing debt of the business organizations due to the influence of the profitability. Further, the review of the literature (Gamlath, 2019; Sivalingam & Kengatharan, 2018; Ishari & Abeyrathna, 2016; Gunarathna, 2016) highlight that there are no any studies conducted including all the listed non-financial firms in Sri Lanka in the recent past. Hence, the study is more useful to analyze the impact of leverage on the profitability of the non-financial firms of Sri Lanka after the

dramatic downturn in economy as well. The significance of leverage is to be analyzed during the sample period where there might be the impact from the policies on lowering interest rates imposed by the government during that period. The chances of increasing leverage also should have an impact on the profitability of the firms (Gamlath, 2019; Ishari & Abeyrathna, 2016). Thus, the direction of the impact is intended to analyze in this study. Therefore, academicians, debt managers, investors can refer the results of this study for their references.

The remaining part of this paper is organized as follows. Section two provides literature review and hypotheses development, section three describes the methodology employed in this study, section four discusses the result of the study and section five concludes and provides the suggestions from the results of this study.

II. Literature Review and Hypotheses development

Mix of both debt capital and equity capital referred as financial leverage of an organization. Particularly, concept literally discussed by different economists from 1958. Initially Modigliani and Miller proposed M&M theory in 1958 and it was stated that the decision over employing debt capital or equity capital does not affect the company's overall value. However, the theory developed under the assumptions that the markets are perfectly efficient in which companies do not pay taxes, and there are no bankruptcy costs or asymmetric information. Contradictorily, the above assumptions are not practically available in a market. Therefore, by assuming that the companies pay taxes, markets include bankruptcy costs and asymmetric information, M&M theory further developed in 1963 that states the interest payments are excluded from the tax payments and therefore by the amount of interest paid benefits can be enjoyable by firms, and finally it will positively affect the value of the organizations. The remarkable point of this theory is that there is no optimum level of

debt level to an individual firm is determined and this can be achieved based on the decisions and strategies of management.

Also, the theory of tradeoff (Myers, 2001) supports for the development of this study, the firms' decision to consume debt finance over the equity finance by comparing the cost and benefits of two choices. Therefore, the decisions to choose which financing structure is an important decision and the impact of choosing leverage on the firm profitability is analyzed in this study as well. Further, pecking order theory states the order by which the firm can select the source of finance and concluded that firm selects more internal source of finance initially such as sale of assets, retained earnings etc. Also, to finance the remaining, it normally goes for external funding. The pecking order theory is therefore supporting to develop this study. Next, the empirical findings of different authors on the impact of financial leverage on firm performance is discussed below.

Empirical Findings on Sri Lankan Context

Gamlath (2019) found the impact of financial leverage on firm growth using twenty listed companies in Sri Lanka during the five years from 2013 to 2017. Both 'total debt to total assets ratio' and 'total debt to total equity ratio' were used to measure the leverage and sales growth, profit growth, and assets growth were used to measure the firm growth. There is a positive impact of financial leverage on firm growth. Therefore, the results suggest that, it is significant to maintain optimum level of leverage to avoid further financial distress of the firms in the context of Sri Lanka.

Sivalingam and Kengatharan (2018) explores the relationship between capital structure and financial performance of listed licensed commercial banks in Sri Lanka. The study incorporated the data from ten banks based on the year 2007 to 2016. Debt to total assets ratio, long term debt to total assets ratio and short-term debt to total assets ratio were considered as independent variable, and return on assets, and return on equity were considered as dependent variable. The

control variables were size of the banks, and growth in bank deposits. With employing the fixed effect model, the study found that there is a significant negative relationship between debt to total assets ratio with return on assets and return on equity. The findings of this study elaborate that the banks are advised to rely on internal source of funding rather on debt sources since the level of leverage shows a negative impact on profitability of the banks.

Ishari and Abeyrathna (2016) found the impact of financial leverage on firm's value based on ten manufacturing companies listed in Sri Lanka from the year 2011 to 2015. Debt to equity ratio considered as independent variable and return on equity, return on assets are used as dependent variables in this study. The results indicate that there is a significant impact of debt-to-equity ratio on ROA. However, found a weak negative relationship with ROA.

A research analyzed how financial leverage affects financial risk using the data from 2006 to 2015 based on fifteen companies listed under hotels and travels, and chemicals and pharmaceuticals industries in the Colombo Stock Exchange. Financial leverage, firm size and industry effects are incorporated as independent variables and financial risk was considered as dependent variable and found that financial leverage positively correlated with financial risk of the companies. Also, financial leverage and firm size were considered as the determinants of financial risk. Therefore, the proper mix of capital structure is stated as the main factor which can favorably affects the firm's performance (Gunarathna, 2016).

Perinpanathan (2014) examined the impact of leverage on the financial health of the companies based on the reference of a listed company named 'John Keells Holdings plc' in Sri Lanka with the purpose of knowing whether a positive impact exists between financial leverage and financial performance or not, using the data from 2006 to 2012. Debt to equity ratio, debt to total assets ratio were the independent variable and net profit, return on equity, and return on capital employed were considered as dependent variable. It was found that the financial leverage has a negative significant impact on the financial performance of the John Keells Holdings plc in Sri Lanka.

The prediction of financial distress in Sri Lankan context was examined by Nanayakkara and Azeez (2014), comprising 246 companies from 20 industries listed in Colombo Stock Exchange from the year 2002 to 2011. The independent variables considered as profitability to leverage ratio, liquidity ratio, profitability to efficiency ratio and liquidity to efficiency ratio. The dependent variables considered as the net worth, annual profitability, and soundness of cash flow of financially distressed and not distressed companies separately. The multivariate discriminate analysis found that the profitability to leverage ratio, liquidity ratio and other two independent variables can predict the financial distress of public listed companies in Sri Lanka is about 76.9% accurate one year prior to distress and 74.6 %, 67.2 % predicting ability prior to two and three years prior to the financial distress respectively.

Leon (2013) explores the relationship between capital structure and the financial performance of listed manufacturing firms in Sri Lanka using the data from 2008 to 2012.The study considered leverage as independent variable, return on assets, and return on equity as dependent variables and found that there is a significant negative relationship with return on equity and no significant impact was found with return on assets.

Bei and Wijewardana (2012) emphasized the impact of financial leverage, firm growth on financial strength in listed companies in Sri Lanka from 2000 to 2009. The study concentrated on the variable's total debt to total assets ratio, profit growth, sales growth, financial strength, asset growth as independent variables and financial leverage as dependent variable. The multiple regression analysis found that financial leverage on Sri Lankan companies positively

affected on the firm growth and financial strength.

Based on the empirical review in Sri Lankan context, the mixed results were revealed by different authors. It was found that leverage is positively affect the performance of the organizations. Therefore, incorporating more debt capital is suggested as an appropriate choice to enhance the organizational performance (Gamlath, 2019; Gunarathna, 2016; Bei & Wijewardana, 2012). On the other hand, it was also found that increasing level of debt can cause financial distress and therefore it will lead to an adverse performance of the organizations (Sivalingam & Kengatharan, 2018; Perinpanathan, 2014; Leon, 2013). The impact in-between leverage and firm performance is analyzed in the international context also and the summary of the review is given below.

Empirical Findings on International Context

Javeed and Tabassam (2018) investigated the impact of financial leverage on firm's financial condition based on the evidence from the listed firms of Pakistani textile industry from 2007 to 2016. The study incorporates financial leverage as independent variable; return on assets, sales growth, and net profit margin as dependent variable. The findings of the study emphasized that there is a positive relationship exists among financial leverage and firm performance. However, found that there is a negative relationship exists in between financial leverage and return on equity.

Ibhagui and Olokoyo (2018) explore the impact of leverage on firm performance, by using a panel data set comprising 101 listed firms in Nigeria over the period from 2003 to 2007. The study resulted that there is a negative relationship between leverage and firm performance at the initial stage and with the firm growth the negative relationship was vanished at the stage which the firm exceeds its estimated threshold level. Further, the study analyzed the impact based on the firm size. Since the larger firms would have the economic efficiencies to handle the cost of financing rather than the small firms.

Minnema and Andersson (2018), examined the relationship between financial leverage and profitability using 130 management consulting firms from the year 2012 to 2016. The leverage, firm size, liquidity and firm age were considered as independent variables and return on assets used to measure the profitability of the firms. The regression results of the study also revealed a negative linear relationship between total debt and profitability.

Ilyukhin (2015) expressed the impact of financial leverage on firm performance based on the Russian joint-stock companies over the period from 2004 to 2013 using debt to total assets ratio as independent variable, return on assets and return on equity as dependent variable. The results revealed that financial leverage negatively impact on firm performance. The reasons are explained as ineffective corporate control of Russian market, debt attracting difficulties, high growth potential and high interest rate for financing via debt.

Ahmad, Salman and Shamsi (2015) explores the negative relationship between financial leverage on profitability of cement sector operating in Pakistan using 18 cement manufacturers based on the data from 2005 to 2010. The inverse relationship is found at 99% confidence in their study.

To sum up, the overall review of the literature provides different conclusions such as financial leverage of the firms positively impacts on profitability. This implies that incorporating more debt capital would enhance the profitability (Gamlath, 2019; Javeed and Tabassam, 2018; Bei and Wijewardana, 2012). The above findings are in line with the M&M theory (1963) that the inclusion of debt capital would reduce the total amount of tax payment and thereby increases profitability of organizations. However, some researchers including Sivalingam and Kengatharan, 2018; Minnema and Andersson, 2018; Ishari and Abeyrathna, 2016; and Perinpanathan, 2014 found a negative impact on profitability due

to the debt capital, which is contrary to the theory of M&M in 1963. Therefore, based on the literature review, it was identified that the relationship between the financial leverage and the profitability are revealed both positive and negative. Hence, it is also observable that the studies carried out within Sri Lanka focused only on some sectors such as manufacturing, textile etc. The studies comprising all the non-financial sectors are found to be limited in the current literature. Even though the study carried out by Azeez, (2014) include all the firms, the data only considered from the period 2002 – 2011. Therefore, this study fills the research gap by choosing the period from 2003 to 2017 to analyze the issue in before in Sri Lankan context.

Hypothesis of the Study

Based on the critical analysis of the literature, following hypothesis has been formulated to test the impact of financial leverage on firm profitability of the non-financial firms listed in Colombo Stock Exchange.

H0: There is no significant impact of financial leverage on firm profitability of the listed non-financial firms in Sri Lanka.

According to M&M 1958 theory, it was stated that there is no significant impact in between the firms' capital structure and its profitability. However, with the inclusion of transaction costs, tax payments and market inefficiency the significant impact of financial leverage on firms' performance are expected and this was explained in the theory of M&M 1963 as well. Also, previous studies found a significant impact in between the variables financial leverage and firm performance (Gamlath, 2019; Javeed and Tabassam, 2018; Sivalingam and Kengatharan, 2018; Minnema and Andersson, 2018; Ishari and Abeyrathna, 2016; Perinpanathan, 2014; Bei and Wijewardana, 2012). According to this, the researchers intend to find out whether there is a significant impact of financial leverage on firm performance of non-financial firms

listed in Sri Lanka over the period of 2013 - 2017. Therefore, the alternative hypothesis can be developed as follows:

H1: There is a significant impact of financial leverage on firm profitability of the listed non-financial firms in Sri Lanka.

III. Methodology

Sample Overview

The study aimed to consider the population of 290 listed firms on the CSE, as at July 2019. The present study excludes Banking, Finance, and Insurance companies as they have identical financial characteristics such as the strength of directives, laws, regulations and formulation of capital structure from non - financial firms. Further, newly listed non-financial and non-dividend paying companies are eliminated in the process of sampling.

Based on the derived samples, 82-firms could be able to consider developing the strong panel data for the five years from 2013- 2017. The data collected from the published financial reports for the selected companies which are listed on the CSE's website.

Model Specifications

This study is developed panel data analysis with 410 observations. 82 non - financial firms are considered in this study covering the panel data collected from 2013 to 2017 to analyze the impact of financial leverage on firm profitability of Sri Lankan listed non - financial firms.

Initially the descriptive statistics is carried out to provide the summary of the data set. This can allow to compare the data used in this study with other studies carried out in Sri Lankan context. Majority of the previous studies from developing countries have employed pooled OLS (Ordinary Least Square) regressions to investigates the relation between firm performance and leverage. Even though, the pooled OLS regression does not consider the potential endogeneity of leverage arising from the unobserved firm heterogeneity, for example,

managerial ability (Zwiebel, 1996). Thus, the issue of endogeneity could affect both the firm's leverage and its estimated performance. Thus, OLS estimator is more likely to provide biased estimates of the coefficient on leverage. Therefore, to rectify the possible endogeneity issue, the study firstly uses fixed effects regression which enable us to control for the possibility that endogeneity arises from omitted unobserved factors. Secondly, the study regresses the contemporaneous performance measures on the one-period lag values of leverage and other explanatory variables. The lag allows for the effect of change in the sample firms' leverage to show up in future firm return on assets.

Therefore, panel data techniques comprising fixed effects and random effects analysis were carried out and fixed effect model was selected to analyze the impact of financial leverage on return on assets of Sri Lankan non - financial firms based on the Hausman specification test.

Empirical Model

Study used fixed effect model to analyze the impact of variable that are vary over time.

$$ROA_{it} = \alpha_0 + \alpha_1 DER_{it} + \alpha_2 LIQ_{it} + \alpha_3 SGW_{it} + \alpha_4 FSIZ_{it} + \varepsilon_{it} \text{ .... (1)}$$

Where,
DER_{it} – Debt to equity ratio of firm i at time t.
LIQ_{it}– Liquidity of firm i at time t.
SGW_{it} – Sales growth of firm i at time t.
$FSIZ_{it}$- Firm size of firm i at time t.
α_0 – intercept coefficient of firm i;
α_1, α_2, α_3 & α_4 – row vectors of slope coefficient of regressors
ε_{it}: Stochastic error term of firm i at time t
u_{it}: error term of firm i at time t

Conceptualization

Based on the analysis of the literature, the following conceptual framework is developed by the researcher (refer figure 1).
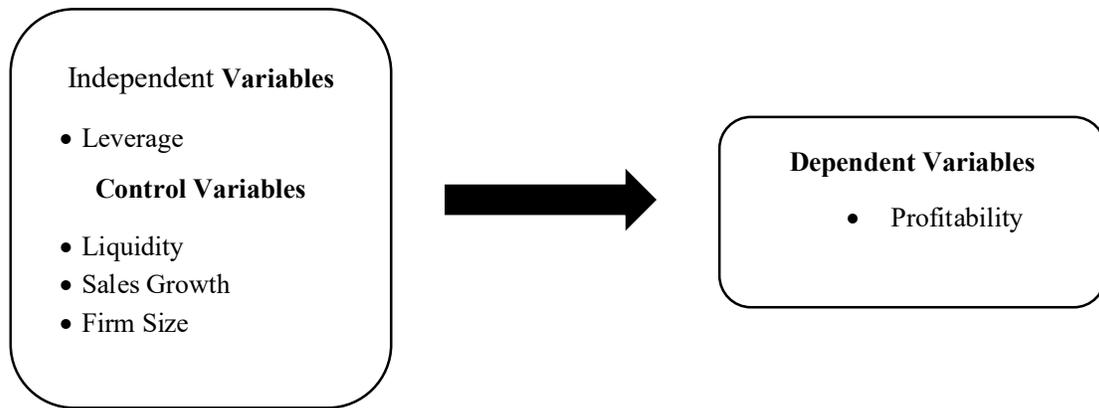

Figure 1. Conceptual Framework

Operationalization

Table 1. Measurement of variables

Variables	Acronyms	Measures	Reference
Dependent Variables			
Return on Assets	ROA	$\dfrac{Net\ profit\ before\ interest\ and\ tax}{Total\ assets\ in\ year\ t}$	Adimasu (2019)
Independent Variables			
Debt to equity ratio	DER	$\dfrac{Total\ debt}{Total\ Equity}$	Sivalingam and Kengatharan, (2018)
Control Variables			
Liquidity	LIQ	$\dfrac{Current\ Assets}{Current\ Liabilities}$	Sondakh (2019)
Sales Growth	SGW	$\dfrac{Current\ year\ Sales - Previous\ year\ Sales}{Previous\ years'sales\ in\ year\ t}$	Ajanthan(2013)
Firm Size	FSIZ	Natural logarithm of total assets	Javeed and &Tabassam, (2018)

IV. Results and Discussion

Descriptive Statistics

Below the summarized table 2 shows the details of the data used for the study.

The mean (median) value of debt-to-equity ratio is 0.3651 (0.3626) with the minimum and maximum range in between 0.0099 – 0.9702 and the standard deviation indicates a value of 0.2188. The average value of liquidity is 3.4791 with the median of 1.6064. Minimum and maximum range of liquidity value is 0.0679 and 55.5993. Also, the standard deviation is 6.6948. The mean (median) value of sales growth is 7.2427 (6.4593) with the minimum value of -99.4561 (sales drop of 99.4561) and the maximum value of 83.1315. Standard deviation of sales growth is 18.5136. Firm size shows a mean value of 9.7781 and a median value of 9.7735. The minimum and maximum values of firm size is 8.6055 and 11.1545 with a standard deviation of 0.4685. Further, it shows a mean value of return on assets is 12.7353 with the median value of 10.1639. There is a minimum loss of 7.5405 and a maximum profit of 100.5177 with the deviation of 13.8545.

Table 2. Summary Statistics of the variables

Variables	Obs	Mean	Median	Min	Max	SD
DER	410	0.3651	0.3626	0.2399	0.8702	0.2188
LIQ	410	3.4791	1.6064	0.1679	55.5993	6.6948
SGW	410	7.2427	6.4593	-99.4561	83.1315	18.5136
FSIZ	410	9.7781	9.7735	8.6055	11.1545	0.4685
ROA	410	12.7353	10.1639	-7.5405	100.5177	13.8545

Correlation Analysis

Table 3. Correlation Matrix

Correlation Probability	DER	LIQ	SGW	FSIZ	ROA
DER	1.0000				

LIQ	-0.4336	1.0000			

	0.0000				
SGW	0.1464	-0.0329	1.0000		
	0.0030	0.4068			
FSIZ	0.1475	0.0728	0.0026	1.0000	
	0.0027	0.1411	0.5588		
ROA	0.1249	-0.0084	0.0701	0.0727	1.0000
	0.0113	0.8649	0.1563	0.1418	

The above table shows the relationship direction and magnificent among the variables. Accordingly, debt to equity ratio shows a positive relationship with return on assets of the non-financial firms (Javeed and Tabassam, 2018; Gamlath, 2019). Regarding the control variables, it shows a positive relationship among sales growth, firm size and return on assets. The results are inconsistent with the findings of Ilyukhin (2015). Also, liquidity ratio shows a negative relationship with return on assets of Sri Lankan listed non-financial firms. Further the significance of the relationship among the independent variables are relatively low and indicates there is no serious multicollinearity problem in the present study.

Regression Results

Regression analysis is carried out to find out the impact of financial leverage on return on assets of the listed non-financial firms in Sri Lanka. Initially pooled regression analysis was conducted and to recognize the individual/ group effect, time effect or both, in panel data set, fixed effect and random effect model were carried out and based on the Hausman test results it was confirmed that fixed effect model is most suitable in this study and the findings are displayed in the table 4.

Table 4. Hausman Test Results

Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f	Prob
Cross-section random effects		16.61127	4	0.0023
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
DER	-21.6421	-10.4232	9.8866	0.0004
LIQ	0.1845	0.1586	0.0026	0.6135
SGW	0.0256	0.0249	0.0000	0.7402
FSIZ	3.9034	1.9857	10.5988	0.5558

The Hausman test results indicates the probability value which is less than 0.05 and therefore among the fixed and random effect models fixed effect model is considered as most suitable in this study. The regression results based on the fixed effect model is given below.

Table 5. Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistics	Prob.
DER	-18.35894	39.27074	-0.467497	0.6405
LIQ	-21.64213	5.260316	-4.114227	0.0000
SGW	0.184472	0.119420	1.544723	0.1234
FSIZ	0.025601	0.017887	1.431261	0.1533
Effects Specification				

R-Squared	0.854276
Adjusted R-Squared	0.816046
F-statistic	22.34564
Prob(F-statistic)	0.000000

In the above table, debt to equity ratio shows a negative significant impact on return on assets of the firm. The p value indicates a value of 0.0000, which is less than the critical value (0.05) and therefore debt to equity ratio can be explained as significant at 95% confidence level. Also, the coefficient value of debt-to-equity ratio is -21.6421. the negative sign of the coefficient value indicates that there is a negative relationship in between debt-to-equity ratio and return on assets. The increase in debt portion to the total capital structure is explained as threat to the profitability of the company since it negatively affects return on assets of the firm. The results of this study are consistent with Ilyukhin (2015), Ishari and Abeyrathna (2016), Sivalingam and Kengatharan (2018), and Perinpanathan (2014). Based on this finding, the null hypothesis is rejected (H_0) and the alternative hypothesis (H_1) is accepted in this study. Further, none of the control variables considered in this study shows a significant impact. Liquidity of the firms, sales growth and firm size show a probability value of 0.1234, 0.1533 and 0.3414 respectively.

The R^2 value shows 85.43 % and which indicates that there is 85.43 % of influence in return on assets is due to the independent variables considered in this study which are debt to equity ratio, liquidity, sales growth, and firm size. Following to this, adjusted R2 shows a value of 81.6% and this indicates the most accurate influence in return on assets due to the independent variables. Further, F statistics shows a value of 22.3456 and the probability of the F statistics exposes 0.0000. based on the probability of F statistics, which is below than the critical value (0.05), the fixed model is explained as most suitable in this study.

V. Conclusion

The study finds out the impact of financial leverage on the profitability of listed non-financial firms in Sri Lanka based on 82 firms from the data collected during the period 2013 to 2017. The study analyzed the mix of debt and equity proportion and the influence in the profitability of the firms. Accordingly, the alternative hypothesis is developed as there is a significant impact of financial leverage on profitability of non-financial firms in Sri Lanka. This study employed fixed effect model as suitable since the Hausman test shows a probability value less than 0.05. The fixed effect model revealed a significant negative impact of financial leverage on the profitability of the firms. The coefficient value is -21.6421 and the probability value becoming 0.0000, it was evidenced that there is a significant negative impact between debt-to-equity ratio and profitability and which implies that the increase in debt proportion to the total capital structure would reduce the profitability of the firms. Based on the results, the alternative hypothesis (H1) is supported, and the null hypothesis (H0) is rejected. Also, the finding is supported with previous studies carried out by Ilyukhin (2015); Ishari and Abeyrathna (2016); Sivalingam and Kengatharan (2018); and Perinpanathan, (2014). Further the other control variables do not show a significant impact on return on assets and therefore insignificant variables. However, the influence on return on assets due to the independent variables of the research are considered as high in this study since the R2 value became 85.4%.

The study suggests that excessive debt capital is harmful to the organizational profit. The theory of M&M (1963) states that the debt

capital inclusion in the capital structure enhance the value of the firms. The management should be more concern about the right mix among debt and equity capital. The study therefore provides more insights for companies looking for the right capital structure. The level of debt also decided based on the ability of the firm to repay the interest for this. Academicians, entrepreneurs and students can refer the findings of the study and in their decision making. However, the results are based on the secondary data and limited to 2 firms. Moreover, it would be more valid to incorporate the combination of primary and secondary data for the analysis since that could provide more insights to the findings.

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