**Amity Journal of Finance**
**1(1), (57-66)**


# How does Financial Leverage Affect Financial Risk? An Empirical Study in Sri Lanka

**Vijitha Gunarathna**
*University of Ruhuna, Matara, Sri Lanka*

**(Received: 26/10/2015 ; Accepted: 17/03/2016)**

**Abstract**

Having debt or preferred stock capital is an important decision made by firms because the return on equity, in general, is expected to be higher with debt. Nevertheless, the costs associated with leverage tend to outweigh the benefits when the leverage increases beyond an optimal level. Thus, excessive leverage may create an uncertainty about a firm's existence. However, straight forward guidelines on what constitutes the optimal level of leverage remain largely missing. Therefore, this study examines how financial leverage affects financial risk based on the data collected over ten years ranging from 2006 to 2015 regarding fifteen companies in hotels and travels, and chemicals and pharmaceuticals industries listed in the Colombo Stock Exchange. The findings revealed that financial leverage positively correlate with financial risk. However, firm size negatively affects the financial risk. Importantly, hotels and travels firms have a higher financial risk compared to chemicals and pharmaceuticals firms. Hence, financial leverage and firm size can be considered as determinants of financial risk. The findings imply that firms having a higher financial risk can avoid their risk by altering the capital structure when the market condition is favourable. Firms are, however, least able to do so during a decline in the industry.

**Keywords:** Debt Capital, Financial Leverage, Financial Risk, Firm Size

**JEL Classification:** G31, G32

**Paper Classification:** Research Paper

## Introduction

Having debt or preferred stock capital is a vital decision made by firms because the return on equity is expected to be higher with debt capital (Bodie, Kane & Marcus, 2008; Modigliani & Miller, 1958). Considering the trade-off between a potentially higher shareholder's return and the potential decreases in financial strength and solvency is an important part of making financial decisions (Luoma & Spiller, 2002) because inappropriate financing decisions make firm's risk larger. However, Penman (2008) points that equity and capital investors expect to yield a return on the investment exceeding its cost of capital of equity or debt despite of risk of the investment.

Expanding operating activities makes firm to lead how the expansion is to be financed. Particularly, the selection of debts and equity capital or an optimum mix of both depends on the availability of internal funds of the firm (Long & Malitz, 1985). Ahmed Sheikh and Wang (2011) state that inappropriate selection of securities such as debts or preferred stock creates a financial distress and ultimately to bankruptcy of the firm. Moreover, a particular usage of preferred stock and debt in financing the firm's assets creates financial risk which is directly associated with firm's financial leverage (Luoma & Spiller, 2002). The impact of financial leverage is likely to be positive under good economic condition while its impact is likely to be negative under bad economic condition of the country (Levy & Sarnat, 1994). Thus, increasing the variability of firm's return due to improper use of obtained funds will expand the financial risk of the firm. Ultimately, the uncertainty of the firm will increase in the future when the trend of investment of potential risk averse-investors is lower. In the light of the above fact that effective use of obtained funds can reduce firm's financial risk and make firm profitable.

Only a limited number of studies have addressed financial leverage and its impact on earnings in publicly listed companies in Sri Lanka (Bei & Wijewardana, 2012; Elangkumaran & Nimalathasan, 2013; Rajkumar, 2014). However, those studies do not address the effect of financial leverage on financial risk. Conversely, lack of research on financial leverage on financial risk in the hotels and travels, and chemicals and pharmaceuticals industries in Sri Lankan context provide an important rational for investigating how financial leverage affects financial risk in Sri Lanka. Moreover, most of the studies have focused on financial leverage and its related attributes in developed and emerging stock markets (Aivazian, Ge & Qiu, 2005; Long & Malitz, 1985; Prezas, 1987). Therefore, this study aims to investigate how financial leverage affects financial risk in different industries in Sri Lanka with controlling industry effect and firm size in term of firm's total assets.

Even though the terrorism war of the country has adversely affected for all firms, the effect of terrorism war in the country for the industries was not considered due to the number of unequal observations in the sample over the period. For example, study period consists of four years before the war and six years after the war. Moreover, the selected variables in the study were measured as an average of the data in the year because of difficulties of gathering data over the year. Therefore, cross-sectional variation over the period may not be captured properly. Another important limitation of the study is that non-listed companies under the Colombo Stock Exchange have been dropped from the study, since no proper database for those companies is available for the country.

The literature review relevant to the study presents in section two. Section three discusses methods used to gather data and to analyze the data. Section four presents the findings. The section five concludes the paper with a discussion of implications.

## Literature Review

Debt capital appears to be used by firms as a strategy that contributes firms to magnify shareholder's value or firm's wealth maximization. Luoma and Spiller (2002) point out that firm should utilize its total assets to gain a return irrespective of how they were financed by the firm. Conversely, Elgonemy (2002) stated that the costs associated with debt capital tend to outweigh the benefits when the leverage increases beyond an optimal level and then to reduce the overall value of the firm. Therefore, debt capital affects diversely the firm's value in the manner that the firm uses the debt capital. In the light of the above facts, it implies that the cost of debt exceeding the return on investment will decrease the firm's return by which leads the firm for uncertainty in the future.

Financial leverage has differently been measured in the literature. One approach is to measure the sensitivity of a firm's earnings per share to a change in its operating profit (Horne & Wachowicz, 2005). Therefore, firm's operating profit should positively increase when new debt capital is obtained. This is because that new financial charges associated with new debt capital need to be paid by the additional operating profit arising from the use of new debt capital. Otherwise, an unfavourable operating profit affects the firm's existence and certainty.

Firm's risk in general can be divided into operating risk and financial risk. Operating risk cannot be avoided since it arises from uncertainty of the market where the firm undertakes. However, financial risk can be avoided since it arises from the risk of insolvency of the common stock shareholders as well as variation in earnings per share due to use of debt capital (Horne & Wachowicz, 2005). Moreover, financial risk is associated with the consequences on uncertainty of firm's financial policy regarding the debt-equity mix and the fixed interest charge associated with debt (Hill & Stone, 1980). Luoma and Spiller (2002) emphasize that debts or preferred stock increases financial risk. Loudon (2004) states that changes in economic conditions and changes in revenues, operating and financial expenses are several factors behind the uncertainty of future cash flows. According to Levy and Sarnat (1994), the variability of earnings per share is intensified when the debt capital is introduced into the capital structure. In other words, additional variance of earnings per share is due to use of debt capital is called financial risk. Therefore, additional earnings are required to compensate for the financial cost arising from the debt capital. Otherwise, the employed debt capital will make the firm lose and increase the financial risk of the firm.

Prezas (1987) stated that changes in capital structure affect both operating leverage and financial leverage when interactions exist. Operating leverage and financial leverage could go up or go down with debts depending on the size of the debt elasticity of real capital and contribution margin. Moreover, the financial leverage varies due to the adjustment in the interest payments. Unlike the no interactions case where operating leverage remains unchanged while financial leverage goes up with debt, it was shown that operating leverage might go up or down along with debt while financial leverage may go up, remain unchanged, or go down with debt (Prezas, 1987). It is evident that no consistency relationship between debts and financial leverage exists in the literature.

Long and Malitz (1985) developed a model showing that financial leverage of a firm depends on whether it invests in the type of investment such as tangible assets, capital assets or in intangible assets, firm-specific assets. The study based on both a large sample individual firm and 68 firm portfolios. The finding revealed that a major factor is the type of investments in which a firm undertakes. The potential costs associated with debt contribute firm to decide optima mix between debts and equity when looking for outside funds. Similarly, Aivazian, Ge, and Qiu (2005) explored a study to investigate the relationship between financial leverage and firm's investment. The study based on 863 Canadian publicly traded companies in the period of 1982 to 1999. The finding reveals that the financial leverage has a negative relationship with the firm's investment.

Elangkumaran and Nimalathasan (2013) explored the leverage and its impact on earnings and share price based on 20 publicy listed companies over 20 industries in the Colombo Stock Exchange. The finding revealed that there is a negative and non significant correlation between financial leverge and firm's earnings per share (EPS). It implies that the use of debt capital affect EPS to decrease but not significantly. This finding is not consistent with the findings that return on equity is expected to be higher with debt capital, (Bodie et al., 2008; and Modigliani and Miller, 1958). Moreover, it is expected that the variability of EPS is not significantly affected by financial leverage. More importantly, the industry effect and firm size were not considered in this study.

On the other hand, Rajkumar (2014) investigated the impact of financial leverage on financial performance based on one firm in the hotel and travels industry in Sri Lanka. Rajkumar's findings revealed that financial leverage is negatively and significantly related to financial performance. Importantly, it seems that variablity of firm's return significantly and negatively related with financial leverage in the hotel and travel firms in Sri Lanka. This finding is consistent with the Elangkumaran and Nimalathasan's finding.

The firm size is an important determinant of capital structure due to several reasons. For instance, Rajan and Zingales (1995) observed how firm size affects capital structure of firms in G-7 countries. The findings revealed that larger firms are likely to be more diversified and have a lower probability of default. It is argued with the predictions of the trade-off theory. This theory describes that large firms tend to acquire more debts because the firms are more diversified and less prone to bankruptcy. Further, the findings reveal that firm size positively relates to leverage. Conversely, the pecking order theory describes that firm size is negatively associated with the debt ratio because large firms have a severe issue of information asymmetry. Thus, large firms tend to acquire less debt because of their ability to issue informational sensitive securities. It is shown that there are no consistent findings on this issue in the literature. Wald (1999) explored that firm size significantly and positively correlated with leverage for firms in the USA, the UK, and Japan while firms in Germany have an insignificant negative relationship and a positive relationship for firms in France. Chen (2004) observed firms in China that there is a significant negative relationship between firm size and long-term leverage. Marsh (1982) observed that large firms are willing to obtain long-term liabilities while small firms obtain short-term liabilities.

Yoon and Jang (2005) investigated the effect of financial leverage on financial performance and risk of sixty-two restaurant firms in the United States for the period 1998 to 2003. They hypothesized that restaurant firms having a higher level of financial leverage are riskier than those having a lower level of financial leverage. However, the findings revealed that a firm having a higher level of financial leverage has less volatility in return on equity (ROE) and stock prices changed compared to the firms having a lower level of financial leverage. It implies that the relationship between financial leverage and volatility in ROE and stock prices change is negative. Moreover, they pointed that total assets are negatively and significantly related to volatility in ROE and stock prices change.

MacKay and Phillips (2005) explored how industry affects financial structure and why financial structure varies across firms within the manufacturing industry in the USA. The findings suggest that industry factors affect individual firm decisions and financial characteristic in industries. The firm's position in the industry affects to determine the financial structure. Financial leverage depends on several factors such as the action of other firms in the industry; and its status as entrant, incumbent or exiting firms in competitive industries. It is important that financial structure, technology and risk should be determined together in industries.

In the light of the above discussion, investment in assets using the outside funds is an important decision because higher financial leverage due to inefficiency use of debt capital significantly increases financial risk. However, ROE exceeds the return on investment (ROI) with a higher financial leverage when the market condition is favourable. It helps firm to keep the financial risk at a lower level. Conversely, a firm having a negative financial leverage will decrease firm's return as well as firm value. It further increases the firm's uncertainty in the future. More importantly, it was observed that types of industry where investors invest and firm size are considerable factors in determining the firm's financial risk.

## Methods

The data were gathered randomly through the annual reports of ten listed companies of hotels and travel industry (HTI) and five listed companies of chemical and pharmaceuticals industry (CPI) listed in the Colombo Stock Exchange (CSE) of Sri Lanka over the period 2006 - 2015. Selection of two industries helps to identify the industry effect. Eight companies out of thirty-nine publicly listed companies in both industries were dropped because they were not available consecutively over the period. The final data set consists of fifteen listed companies of HTI and CPI over ten years resulting in 150 observations.

It was observed that the FR has been measured differently and there is not a commonly accepted method in the literature. Therefore, firstly, total risk was measured by the coefficient of variation of EPS (Horne & Wachowicz, 2005). Secondly, operating risk was measured by the coefficient of variation of EBIT (Horne & Wachowicz, 2005; Levy & Sarnat, 1994). Finally, financial risk was measured by the total risk minus operating risk. The financial leverage was measured by dividing changes in EPS by changes in EBIT (Horne and Wachowicz, 2005). Importantly, financial market differently affects companies in the market depending on many factors, such as firm size, industry effect, nature of product, capital intensity, technology, market conditions and management attitudes. However, firm size and industry effect were to be considered as control variables in the study. Figure 1 represents the conceptual framework of the study.

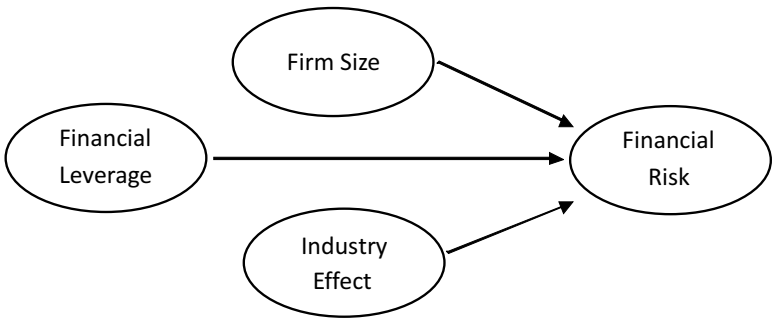


**Figure 1. Conceptual Framework**

Study employs the following regression model. Model A assesses the relationship between financial leverage and financial risk by controlling industry effect and firm size variables in the period from 2006 to 2015.

Model A: $FR_{it} = \alpha + \beta_1 FL_{it} + \beta_2 LTA_{it} + \beta_3 DIND_{it} + \varepsilon_{it}$

Where FR denotes financial risk that is obtained using the difference between the coefficient of variation of EPS and coefficient of variation of earnings before interest and taxes (EBIT) whereas i denotes publicly listed companies and t denotes time. Moreover, FL denotes financial leverage, while LTA denotes logarithm of total assets of the particular listed companies. LTA has been used as a control variable in measuring the impact of debt on risk in many studies (Aggarwal & Zhao, 2007; Aivazian, et al., 2005; Chen, 2004; Long & Malitz., 1985; Rajan & Zingales, 1995; Wald, 1999). DIND is a dummy variable to differentiate the industries where HTI takes value 1 and CPI takes value 0. Finally, $\beta$, $\varepsilon$ and $\alpha$ denotes regression coefficients, the random error and the intercept respectively. The 95% confidence level was considered as significance level for the entire of the analysis.

## Discussion

Descriptive statistics are shown in Table 1. The mean scores for FR in the HTI and CPI are 0.9127 and 0.5798 respectively. It is obvious that level of FR is expected to be higher when variations in EPS increase due to use more debt in the capital structure. More importantly, variations of EPS tend to be higher in the HTI compared to the CPI. It is proved that standard deviation of FR in the HTI is relatively high compared to the CPI.

**Table 1: Descriptive Statistics**

| Variables | Industry | N | Mean | Std. Deviation | Minimum | Maximum |
|---|---|---|---|---|---|---|
| Financial Risk | HTI | 100 | 0.9127 | 1.3343 | 0.0415 | 5.7979 |
| | CPI | 50 | 0.5798 | 0.6349 | 0.0035 | 2.1275 |
| | Total | 150 | 0.8018 | 1.1577 | 0.0035 | 5.7979 |
| Financial Leverage | HTI | 100 | 1. 7845 | 1.8281 | -3.0900 | 5.8700 |
| | CPI | 50 | 1. 1174 | 1.2223 | 0.1255 | 4.9578 |
| | Total | 150 | 1.3431 | 1.6776 | -3.0900 | 5.8700 |
| Total Assets | HTI | 100 | 8008.7 | 8186.9 | 323 | 32788 |
| | CPI | 50 | 7987.8 | 8073.9 | 262 | 28929 |
| | Total | 150 | 8001.8 | 8110.2 | 262 | 32788 |

Some firms in both industries seem to have a higher level of FL as well as a lower level of FL with comparison to average FL in the industries. However, the level of FL in the HTI is relatively higher compared to the CPI. In the HTI, EPS is expected to increase by 1.78% when the EBIT increase by 1%. Similarly, the EPS is expected to increase by 1.11 % when the EBIT increase by 1% in the CPI. A lower FL implies that the growth in EPS and EBIT tend to increase slightly even though the firms have more debts in the capital structure. Importantly, some firms in HTI have negative FLs which explain that the cost of debt capital exceeds the return arising from debt capital. This is because of ineffective and inefficient use of obtained debt capital. This situation adversely affects the existence of the firm because negative FLs offset the positive FL arising from other sources. However, as Prezas (1987) mentioned, firms can make FL positive by adjusting the interest payment. For example, interest payment associated with higher interest rates can be revised with present market rates and increasing the effectiveness of obtained debt usage. In the light of above fact, the firm having a higher level of FL magnify the shareholder's return compared to the firm having negative FL or FL below one. Importantly, the average total assets in the HIT are Rs. 8008.70 in million and Rs. 7987.80 million for the CPI. However, both industries consist of smaller owning total assets which is less than Rs. 350 in millions.

Table 2 illustrates regression results. Model A assesses the effect of FL on FR with controlling the explanatory variables, industry effect and firm size effect, during the period of 2006 to 2015. The F-test ($P \leq 0.01$) shows that the model is statistically significant. Moreover, 20.2% of the variation in the FR is explained by the variations in FL, firm size and industry effect. Model A provides statistically significant evidence that FL is positively associated with FR ($\beta = 0.431$, $P \leq 0.01$). It is expected that an increase in one unit of variation of FL will affect an increase in 43.1% variation in FR. In other words, a higher level of financial leverage implies that percentage change in EPS is greater than the percentage change in EBIT. Then, FR increases because difference between the coefficient of variation of EPS and EBIT is to be high. According to Elgonemy (2002), the financial charges associated with debt capital tend to outweigh the benefits of use of debt

capital when the financial leverage increases beyond an optimal level and then to reduce the overall value of the firm. Firms, therefore, should tend to earn additional EBIT to compensate for additional risk arising from the financial activities of the firm. In the light of above facts, as mentioned by Bodie et al. (2008) and Modigliani and Miller (1958), a higher level of financial leverage facilitates shareholders to earn a higher return on equity with a higher risk of loss. However, the finding, a higher level financial leverage has less volatility in ROE and stock prices changed compared to the lower level of financial leverage, made by Yoon and Jang (2005) is not consistent in the Sri Lankan context.

**Table 2: Model Estimation – Regression Results**

| Model | Variables | F- test | R Sq | Beta | t-test | Std. Error | Sig |
|---|---|---|---|---|---|---|---|
| A | α (Constant) | 12.331** | 0.202 | | 4.686 | 0.270 | .000*** |
| | Financial Leverage | | | 0.431 | 5.689 | 0.052 | .000*** |
| | DIND* | | | 0.131 | 1.757 | 0.000 | .004** |
| | Log of Total Assets | | | -0.219 | -2.901 | 0.184 | .041** |

**DIND= Dummy variable for Industry, *** Significant at 1%, ** Significant at 5%*

More importantly, the regression result shows statistically a significant negative relationship between firm size and FR ($\beta$ = -0.219, P $\leq$ 0.05). Therefore, it is expected that an increase in 22% variation in FR is explained by a decrease in unit of variation of firm size in term of total assets. Thus, FR is expected to be lower when the firm size increases. As Long and Malitz (1985) pointed that the firm invests in the tangible assets, capital assets or in intangible assets, firm-specific assets depending on the outside funds. In the light of the above facts, large firms tend to invest in the verity of investment compared to smaller firms. Smaller firm is said to be willing to invest in the traditional investment compared to new investment opportunities, since investors in small firm should yield a higher return for bearing the risk in the course of the business as well as they have a lack of diversification in investments (Lakonishok & Shapiro, 1986). Importantly, this finding is consistent with finding of Yoon and Jang (2005).

Importantly, dummy variable shows the industry effect. The result suggests that the HTI has a higher FR compared to the CPI. Loudon (2004) states that FR is concerned about uncertainty of future cash flows due to changes in general economic conditions, specific changes in revenues, operating and financing costs etc. When it comes to Sri Lankan context, the HTI has faced a big collapse in the industry due to the terrorism war in the country. The tourists' arrival was less than 550,000 tourists before 2009. However, with the end of the terrorism war in Sri Lanka, the tourists' arrival has been increasing up to 750,000 tourists in 2011 (Vithanagama, 2011). In the light of these facts, the variability in EBIT and uncertainty in future cash flow of HTI have increased in the industry over the period. Thus, HTI has a higher FR and FL. Conversely, the 85% of total heath requirement in Sri Lanka is met by Western Medicine ("Indian Pakistan Trade Unit," 2009). Even though, the productions of the industry are essential for all people and there was a terrorism war in the country, the industry seems to have a lower variance in EBIT and a lower uncertainty regarding future cash flow compared to the HTI. As a result, the CPI has a lower FR than the CPI.

## Conclusion

This study empirically examined how financial leverage affects financial risk with controlling industry effect and firm size in term of firm's total assets based on the collected data of fifteen publicly listed companies over the ten-year period starting from 2006. The finding revealed that

financial leverage is positively associated with financial risk that is consistent with the findings of Levy and Sarnat (1994), and Luoma and Spiller (2002). A higher level of financial leverage results a higher level of financial risk because difference between the coefficient of variation of EPS and EBIT is found to be high. Firms, therefore, should tend to earn additional EBIT to compensate for additional risk arising from the financial decisions. More importantly, keeping financial leverage moved over small variation is important for firms to have a lower level of financial risk. Therefore, the firm having the level of financial leverage that is greater than one, magnify the shareholder's return compared to the firm having negative financial leverage and the level of financial leverage below one. Therefore, a higher level of financial leverage facilitates shareholders to earn a higher return on equity with a higher risk of loss. This finding is consistent with the findings of Bodie et al. (2008) and Modigliani and Miller (1958). Conversely, total assets negatively associated with financial risk that is consistent with the Yoon and Jang's finding in the USA. More importantly, the financial risk will increase when firm size is smaller. Thus, a small firm having a higher financial leverage has a higher financial risk. Therefore, a small firm can mitigate the financial risk by making the level of financial leverage lower.

The study proved that the impact of financial leverage on financial risk in hotel and travels firms is relatively more compared to chemicals and pharmaceuticals firms. That is, whereas chemicals and pharmaceuticals firms can avoid their financial risk by altering capital structure and capital budgeting decisions, hotel and travels firms are least able to do so during a decline in the industry for instance an internal war in a country. Similarly, the hotel and travels firms have a higher level of financial leverage compared to the chemicals and pharmaceuticals firms. Therefore, the difference between the increase in the percentage changes in EPS and the increase in the percentage changes in EBIT is at a higher level in the hotel and travels firms. As Luoma and Spiller (2002) pointed, the EPS and ROE will increase with the positive financial leverage when market condition is favourable. This context will help to attract investors into the industry who are willing to gain a higher return with higher risk. It is important to conclude that the financial leverage is one way of improving EPS and ROE without increasing the ROI. Finally, the financial leverage can be considered as a determinant of the financial risk.

Importantly, the results of the study have important practical implications for financial managers who can use this information in developing the firm's financial policies. For an example, non financial firms can plan how they manage financial risk arising from the high debt levels or a lack of risk management using proper financial management techniques because economic and business risks are more difficult to hedge since they arise from the environment that is beyond the control of firms. Moreover, the findings provide important information for investors to make their optimal investment decisions considering financial risk.

Even though the internal war has affected for all firms in the country, this war factor was not considered in the study due to the number of unequal observations in the sample over the period. Therefore, it is important to extend the study considering the effect of internal war. Moreover, the selected variables in the study were measured as an average of the data in the year because of difficulties of gathering data over the year. Thus, cross-sectional variation over the period may not be captured properly. Therefore, a study considering cross-sectional variation will be important to conduct in order to have more accurate implications about financial leverage and financial risk. More importantly, non-listed companies in the Colombo Stock Exchange have not been considered for the study because of difficulties of gathering data. Therefore, a comprehensive study covering all listed and non listed companies needs to be conducted considering important factors affecting financial risk.

## References

Aggarwal, R., & Zhao, X. (2007). The leverage–value relationship puzzle: An industry effects resolution. *Journal of Economics and Business, 59*(4), 286-297.

Ahmed Sheikh, N., & Wang, Z. (2011). Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance, 37*(2), 117-133.

Aivazian, V. A., Ge, Y., & Qiu, J. (2005). The impact of leverage on firm investment: Canadian evidence. *Journal of Corporate Finance, 11*(1), 277-291.

Bei, Z., & Wijewardana, W. (2012). Financial leverage, firm growth and financial strength in the listed companies in Sri Lanka. *Procedia-Social and Behavioral Sciences, 40*, 709-715.

Bodie, Z., Kane, A., & Marcus, A. J. (2008). *Essentials of Investments.* Boston, MA: McGraw-Hill Irwin.

Chen, J. J. (2004). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research, 57*(12), 1341-1351.

Elangkumaran, P., & Nimalathasan, B. (2013). Leverage and its impact on earnings and share price: a special reference to listed companies of Colombo Stock Exchange (CSE) in Sri Lanka. *International Journal of Technological Exploration and Learning, 2*(4), 166-171.

Elgonemy, A. R. (2002). Debt-financing alternatives—refinancing and restructuring in the lodging industry. *The Cornell Hotel and Restaurant Administration Quarterly, 43*(3), 7-21.

Hill, N. C., & Stone, B. K. (1980). Accounting betas, systematic operating risk, and financial leverage: A risk-composition approach to the determinants of systematic risk. *Journal of Financial and Quantitative Analysis, 15*(3), 595-637.

India Pakistan Trade Unit. (2009). *Current Business opportunities - Chemicals and Pharmaceuticals.* Retrieved May 09, 2012, from http://www.iptu.co.uk/content/srilanka_export_opps.asp

Lakonishok, J., & Shapiro, A. C. (1986). Systematic risk, total risk and size as determinants of stock market returns. *Journal of Banking & Finance, 10*(1), 115-132.

Levy, H., & Sarnat, M. (1994). *Capital Investment and Financial Decisions*. New Jersey: Prentice Hall.

Long, M. S., & Malitz., I. B. (1985). *Investment Patterns and Financial Leverage.* Chicago: University of Chicago Press.

Loudon, G. F. (2004). Financial risk exposures in the airline industry: Evidence from Australia and New Zealand. *Australian Journal of Management, 29*(2), 295-316.

Luoma, G. A., & Spiller, J. (2002). Financial accounting return on investment and financial leverage. *Journal of Accounting Education, 20*(2), 131-138.

MacKay, P., & Phillips, G. M. (2005). How does industry affect firm financial structure? *Review of Financial Studies, 18*(4), 1433-1466.

Marsh, P. (1982). The choice between equity and debt: An empirical study. *The Journal of Finance, 37*(1), 121-144.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review, 48*(3), 261-297.

Penman, S. P. (2008). *Financial Statement Analysis and Security Valuation.* New York, NY: McGraw-Hill.

Prezas, A. P. (1987). Effects of debt on the degrees of operating and financial leverage. *Financial Management*, *16*(2), 39-44.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance, 50*(5), 1421-1460.

Rajkumar, P. (2014). Impact of Financial Leverage on Financial Performance: Special Reference to John Keells Holdings Plc in Sri Lanka. *Scientific Research Journal, 2*(2), 15-20.

Van Horne, J. C., & Wachowicz, J. M. (2005). *Fundamentals of Finance Management.* New Jersey: Prentice Hall.

Vithanagama, R. (2011). Hotels and Travel Sector. Retrieved May 12, 2012, from http://www.scribd.com/doc/52606881/Hotel-Industry-18-01-11

Wald, J. K. (1999). How firm characteristics affect capital structure: an international comparison. *Journal of Financial Research, 22*(2), 161-187.

Yoon, E., & Jang, S. (2005). The effect of financial leverage on profitability and risk of restaurant firms. *The Journal of Hospitality Financial Management, 13*(1), 35-47.

***Author's Profile***

**Vijitha Gunarathna K G P** is a Lecturer, Department of Accounting and Finance at the Faculty of Management and Finance, University of Ruhuna, Sri Lanka. He received the BBA (Accounting) degree from the University of Ruhuna, Sri Lanka, and M.Sc. in Business Administration degree from the University of Agder in Norway. His research interests are capital structure, risk and return, capital market and budgeting.