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CAPITAL STRUCTURE AND STOCK PRICES: EMPIRICAL EVIDENCE FROM LISTED BEVERAGE, FOOD AND TOBACCO COMPANIES IN SRI LANKA

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ABSTRACT

The share price of a firm is affected by various factors. Determination of share price is not an easy task. The share price movement is based on the firm's fundamentals, Market efficiency, Macroeconomic Indicators and Perception of the Investors. Several studies have proven that share price of firms are explained by its capital structure. This study tests the relationship between capital structure and share prices of the listed Food and Beverage Tobacco companies in CSE for the period from 2011/2012 to 2016/2017. It analyzes the relationship between share price and capital structure by employing panel least square method approach. According to the results of the study there is a positive relationship between debt to equity and share prices .The results were statistically significant at 1% level of significance. The results indicate adding debt to overall capital positively effects on the share prices. These findings have important implications for managers or people who take decisions regarding capital structure. The changes in capital structure may have a significant impact on stock prices of the companies.

Contribution/ Originality: This study contributes to update the existing knowledge on the relationship between capital structure and stock prices particularly companies in the food, beverage and Tobacco sector in Sri Lanka. In addition this study uses residual diagnosis in order to check the model fitness.

1. INTRODUCTION

1.1. Background of the Study

Capital structure is a mixture of a various long-term equity shares and sources of funds including surpluses and reserves of an enterprise. A capital structure of an organization is the combination of its financial liabilities and its capital is usually uncertain but is a crucial resource for all firms, finance suppliers which are able to apply control over firms (Harris and Raviv, 1991). Equity and debt are the two main liabilities classes, with debt and equity proprietors acting on behalf of the two types of investors in the firm. Each of these is associated with different levels of risk, benefits, and control. The bank's ability to solve the needs of the stakeholders' is strongly linked to capital structure. In financial terms, it is a way a firm will try to finance its own assets by combining equity and debt (Velnampy and Niresh, 2012).

A firm's capital structure is then a composition or structures of its liabilities which affects the share prices performance of any organization. The level of share price has been considered very significant specifically as an alternative for market liquidity. Investment in securities is also significant to expansion a country's economy and corporate bodies in general. If there is a developed economic environment and managers and stakeholders in the corporate level have the positive expectations about the future, they would normally want to expand. This expansion can take many ways such as increase sales, an enlarged plant, and the acquisition of more powerful and modern equipment. Therefore, the suitable circumstances are expected to result to corporate performance (Abdul, 2012). Few studies examined capital structure in emerging markets like Sri Lanka. However most of the research work carried out in developed countries and very little is known about the impact of capital structure on share price in developing economies. Thus this study intends to fill this research gap.

1.2. Statement of the Problem

The decision of capital structure is significant for any organization in any economy. It is usually demanding for business firms to figure out the right mixture of equity and debt. The decision is crucial because of the requirement to maximize returns to various organizational departments. According to Nimalathasan and Brabete (2010) capital structure of Sri Lankan listed companies is influenced by size, profitability and tangibility of assets. Share prices are one of the major avenues of investment which gives higher returns to investors. A number of transactions take place every movement, it is very difficult for a common man to find out where to invest as they may be cheated by fraud companies and there is every chance of losing the heard earned money. The Returns from investments in equity are subject to differ, depending upon a variety of indicators such as the performance of the market conditions and certain stock, therefore knowledge of such factors and their possible impact on share prices is must, as it will help the investors to make wise investment decisions and enable firms to enhance their market value. However such researches are very rarely carried out in Sri Lanka. Therefore the research problem could be stated as follows." To what extent the capital structure has impact on stock price of Listed beverage, food and Tobacco companies in Sri Lanka."

1.3. The Objectives of the Study

The following can be mentioned as the objective of this study.

To find out the impact of Capital structure on the share price of Listed food, beverage and Tobacco companies in Sri Lanka

1.4. Significance of the Study

The importance of this study stems from the following points:

- The investors are able to know the corporate structure adopted by the selected companies.
- This study provides evidence of whether or not the capital structure affects on the share price of Listed food, beverage and Tobacco companies in Sri Lanka

1.5. Literature Review

Velnampy and Niresh (2012) analyzed the relationship between capital structure & profitability of listed banking industry in Sri Lanka. . They found that there was a negative relationship between debt to equity and return on equity. Further the results suggest that 89% of the total assets in the banking sector of Sri Lanka were represented by debt.

Nirajini and Priya (2013) have done a research on" impact of Capital structure on financial performance of the Trading companies in Sri Lanka'. They found there was a positive relationship between capital structure and financial performance and also capital structure is significantly affect on gross profit, net profit and ROCE.

Anandasayanan *et al.* (2013) analyzed "The determinant of leverage of the listed companies in Sri Lanka; An empirical Study. The purpose of present study was to investigate the determinants of leverage (or capital structure) decision of Sri Lankan firms based on a panel data set over a period of five years from 2007-2011 comprising of 60 companies. This study examined the impact of five firm specific factors – firm size, firm growth rate, profitability, and asset tangibility, on the leverage decision of listed companies in Sri Lanka. The results showed that financial leverage of Sri Lankan firms is influenced by firm size, firm growth rate and profitability .This study contributed to the literature on the factors that influence financial leverage of the firm.

Sheel (1994) showed that all leverage determinants factors studied, excepting firm size, are significant to explain debt behavior variations. Gleason *et al.* (2000) Using data from retailers in 14 European countries, which are grouped into 4 cultural clusters, it is shown that capital structures for retailers vary by cultural clusters. This result holds in the presence of control variables. Using both financial and operational measures of performance, it is shown that capital structure influences financial performance, although not exclusively. A negative relationship between capital structure and performance suggests that agency issues may lead to use of higher than appropriate levels of debt in the capital structure, thereby producing lower performance.

1.6. Data Collection and Sampling

Food and Beverage Tobacco sector was chosen because it is one of the largest sectors of Sri Lanka in term of number of companies. The Sample size of the study is 18 companies randomly selected from food & Beverage Tobacco companies listed in Colombo Stock Exchange. The research is based on secondary data. For the purpose of this study data were collected during the period from 2011 to 2017. Data analysis is done with the help of software packages Eview 10.

1.7. Conceptualization

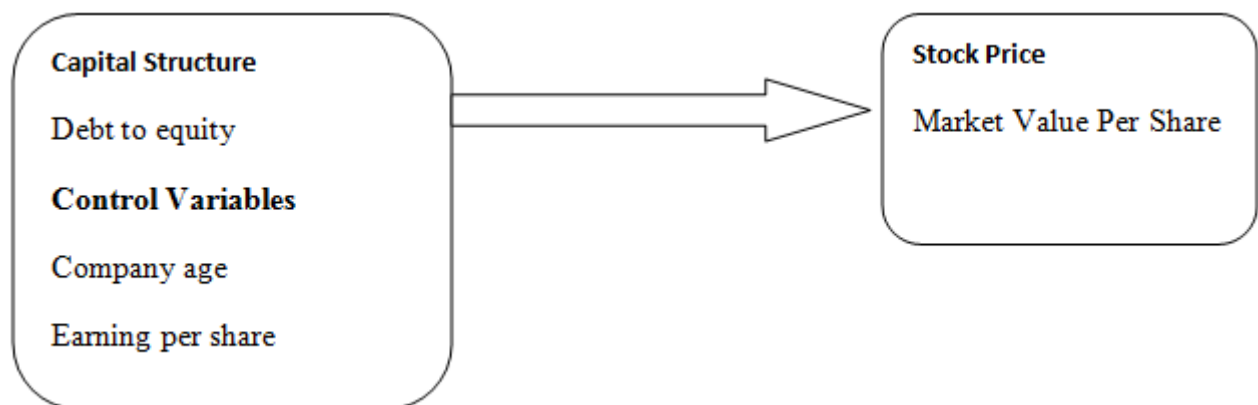After the careful study of review of literature the following conceptual model is developed by the researcher

Figure-1. Conceptual Model

Source: Developed by Researcher

1.8. Definition of Variables

In this study capital structure ratios to be considered as independent variables and stock price is to be considered as dependent variables. To measure the capital structure of the listed Food, Beverage and Tobacco companies the following ratios are taken in this study.

Debt to Equity: The debt to equity ratio is the most important of all capital adequacy ratios The debt to equity ratio tells the shareholders as well as debt holders the relative amounts they are contributing to the capital.

Debt to Equity Ratio = Total Debt / Total Equity

Debt to Total assets Ratio

The debt ratio is the most important ratio when it comes to gauging the capital structure and solvency an organization.

Debt Ratio = Total Debt / Total assets

Stock Price: The cost of purchasing a security on an exchange. A stock price is the price of a single share of a number of saleable stocks of a company.

Control Variables: In this study the following variables are to be considered as control variables.

Company Age : It is calculated that deducting the foundation year of the company from the research period.

Earning per share : Earning per share (EPS), also called net income per share, is a market prospect ratio that measures the amount of net income earned per share of stock outstanding.

1.9. Hypotheses of This Study

Based on theory, previous empirical studies and the research model outlined, this study has formulated the following hypotheses to examine the relationship between dependent and independent variables.

H_1. Capital Structure significantly impact on stock Price of Listed Food ,Beverage and Tobacco Listed Companies.

1.10. Results and Discussion

1.10.1. Descriptive Statistics

Preliminary analysis of the data was carried out for the years 2011/2012 and 2016/2017. Descriptive statistics are also useful to make general observations about the data collected. They report on the trends and patterns of data and provide the basis for comparisons between variables. General description of these variables appears on the Table 01 below.

Table-1. Descriptive Statistics

	CL TA	COM AGE	DEEQ	EPS	MVPS
Mean	0.206564	43.18182	95.22688	26.07140	538.3864
Median	0.292665	32.00000	56.56815	14.20003	168.2500
Maximum	0.841557	150.0000	922.5467	204.3994	2700.700
Minimum	0.001564	5.000000	-39.31429	-233.4164	2.000000
Std Dev	0.217011	34.92407	131.1658	48.54997	709.5969
Skewness	0.550379	1.782337	3.535786	-0.371470	1.509065
Kurtosis	2.360077	5.846095	20.45994	14.03784	4.067292
Jarque-Bera	5.944281	76.29290	1301.141	448.7486	37.57682
probability	0.051194	0.000000	0.000000	0.000000	0.000000
sum	26.97766	3800.000	8441.566	2294.283	47378.00
Sumsq. dev	4.097168	106113.1	1496768	205067.7	438069.15
Observations	108	108	108	108	108

(**Source:** Annual Reports of Selected Companies)

The results showed that Current liability to total asset had a mean of 0.306564 with a minimum of 0.001564 , a maximum of 0.841557, skewness .550379 and kurtosis of 2.360077 Comparatively, Company age had a mean of 43.18182 , minimum of 5 , maximum of 150 , skewness of 1.782337 and kurtosis of 5.846095.

The mean value of Debt to Total Assets for the 88 observations of the study is2.487448% with a standard deviation of 8.445785%. Lower mean value of Debt to total assets ratio represents firm has utilized few sources of long term loans to financing its total assets. . The mean value for EPS is 26.07140% which indicates that most companies were profitable (though some of them were suffering some losses as indicated by the minimum value of - 233.4164%). Similarly, the mean value for Debt to equity is found to be, as shown in the Table95.92688% which indicates, also, that most of the surveyed companies have higher gearing ratios. Negative and positive values of skewness mean that the results, to a certain extent, are not normally distributed.

1.10.2. Regression Analysis

To find out the impact of capital structure on stock price of listed food , beverage and Tobacco companies , Ordinary least square regression model was carried out and the Table 2 presents the Results of the regression. Here the stock prices were considered as dependent variable and the debt to equity ratio was considered as independent variable.

Table-2. Results of Regression

Dependent Variable: MVPS
Method: Least Squares
Sample: 1 108
Included observations: 108

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	71.04100	99.44532	0.714373	0.4770
Debt to Equity	2.537622	0.442245	5.738051	0.0000
Com_age	-1.363560	1.585565	-0.859984	0.3922
EPS	10.84714	1.217113	8.912191	0.0000
R-squared	0.511629	Mean dependent var		538.3864
Adjusted R-squared	0.414987	S.D. dependent var		709.5969
S.E. of regression	504.6691	Akaike info criterion		15.33007
Sum squared resid	21394036	Schwarz criterion		15.44268
Log likelihood	29.33344	Hannan-Quinn criter.		15.37544
Durbin-Watson stat	0.00000	Durbin-Watson stat		1.238572

Source: Annual report of the selected companies

Table 2, shows the coefficient of Debt to Equity of -2.537622 is statistically significant at 1% level with p-value of 0.000. It also shows the coefficient of EPS of 10.84714 is statistically significant at 1% level with p-value of 0.000. Therefore, the first hypothesis(H 1)is supported that capital structure significantly impact on Stock prices . In this study to measure the capital structure, debt to equity ratio was used. That means if the Debt to equity increases , market price of the stock also will increase. Usage of debt saves the tax yield on interest payment. This will improve the Share price of the stock. This result is consistent with Nimalathasan and Brabete (2010) who found positive relationship between Debt to Equity and profitability. Durbin-Watson Statistic is used to test the presence of autocorrelation in the residuals (prediction errors) from a regression analysis. The Durbin-Watson statistic of 1.238572, as revealed by the Table shows an absence of autocorrelation. It implies neither underestimation nor overestimation of the level of statistical significance. The use of an adjusted R^2 is an attempt to take account of the phenomenon of the R^2 automatically and spuriously increasing when extra explanatory variables are added to the model. The adjusted R-squared of 0.511629 means that variations in the independent variables can explain the variations in the dependent variables by 51.1629%. Accordingly, elicited conclusions can be considered as credibly supported by the data.

1.10.3. Multicolinearity

VIF test was used to test multicolonearity among independent variables and it was found that VIF Values are less than 10 which means that there are no serious multicolonearity.

Table-3. Variable Inflation factor

	Coefficient	Centered
Variable	Variance	VIF
C	9880.371	NA
DEEQ	0.195580	1.149402
EPS	1.481364	1.192739
COM AGE	2.514015	1.047426

1.10.4. Residual Diagnosis Test

Residual analysis provides the user various descriptive statistics and misspesification tests. Johansen suggests using residuals from the unrestricted model to decide whether the model is acceptable or not. Visual inspection of the correlograms gives quick overview whether there is left significant correlation in the residuals.

Serial Correlation- Correlogram of Residuals(Q statistics)

H0: No serial correlation exists in residuals

H1: There exists serial correlation in residuals

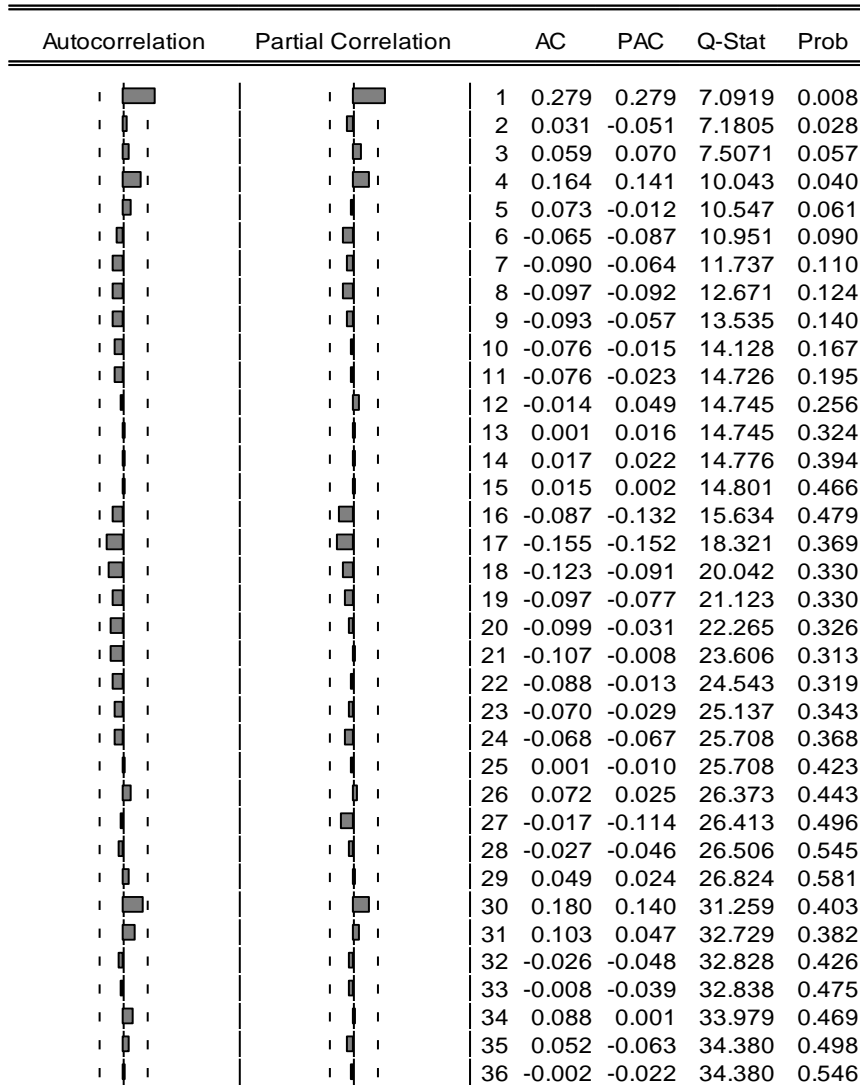Date: 11/10/18   Time: 20:25
Sample: 1 108
Included observations: 88

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.279	0.279	7.0919	0.008
		2	0.031	-0.051	7.1805	0.028
		3	0.059	0.070	7.5071	0.057
		4	0.164	0.141	10.043	0.040
		5	0.073	-0.012	10.547	0.061
		6	-0.065	-0.087	10.951	0.090
		7	-0.090	-0.064	11.737	0.110
		8	-0.097	-0.092	12.671	0.124
		9	-0.093	-0.057	13.535	0.140
		10	-0.076	-0.015	14.128	0.167
		11	-0.076	-0.023	14.726	0.195
		12	-0.014	0.049	14.745	0.256
		13	0.001	0.016	14.745	0.324
		14	0.017	0.022	14.776	0.394
		15	0.015	0.002	14.801	0.466
		16	-0.087	-0.132	15.634	0.479
		17	-0.155	-0.152	18.321	0.369
		18	-0.123	-0.091	20.042	0.330
		19	-0.097	-0.077	21.123	0.330
		20	-0.099	-0.031	22.265	0.326
		21	-0.107	-0.008	23.606	0.313
		22	-0.088	-0.013	24.543	0.319
		23	-0.070	-0.029	25.137	0.343
		24	-0.068	-0.067	25.708	0.368
		25	0.001	-0.010	25.708	0.423
		26	0.072	0.025	26.373	0.443
		27	-0.017	-0.114	26.413	0.496
		28	-0.027	-0.046	26.506	0.545
		29	0.049	0.024	26.824	0.581
		30	0.180	0.140	31.259	0.403
		31	0.103	0.047	32.729	0.382
		32	-0.026	-0.048	32.828	0.426
		33	-0.008	-0.039	32.838	0.475
		34	0.088	0.001	33.979	0.469
		35	0.052	-0.063	34.380	0.498
		36	-0.002	-0.022	34.380	0.546

Figure-2. Correlogram of Residuals(Q statistics)

Source: Annual reports of Selected Companies

By looking at the Table, which is the correlogram for the residuals, any pattern in the ACT or PACF cannot be identified which ensure the robustness of the results. Since the p values are greater than 0.05 from lag3 up to 36 lag, null hypothesis is not rejected and it is clear that the residuals are not correlated. The Q-test indicate that there is no autocorrelation still in the residuals.

1.9.5. Heteroskedasticity Test

The existence of heteroscedasticity is a major concern in the application of regression analysis, including the analysis of variance, as it can invalidate statistical tests of significance that assume that the modelling errors are uncorrelated and uniform—hence that their variances do not vary with the effects being modeled.

H_0: No Heteroskedasticity exists in residuals

H_1: There exists Heteroskedasticity in residuals.

Table-4. Heteroskedasticity Test

Heteroskedasticity Test t Breus ch pagan-Godfrey Null Hypothesis:Homoskedasticity			
F- Statistics	0.277063	Prob (3.103)	0.8418
Obs*R-Squared	0.862237	Prob Chi-Square(3)	0.8345
ScaledExplainedSS	1.372029	Prob Chi-Square(3)	0.7121

Source: Annual report of Company

The H_0, there is a homodcedasticity is tested and the results shows in Table 4. P value of F statistics 0.8418 greater than 5% significance level means that there can reject the alternative hypotheses and accept the null hypotheses. Hence there is no heteroskedasticity in residuals.

2. CONCLUSION

This study has empirically investigated the impact of capital structure on the share price of 18 listed food , Beverage and Tobacco companies listed in the CSE. From the study it was concluded that borrowing money increases the debt Equity ratio thus affect the performance of the share price, increasing the debt ratio may reduce a firm's cost of capital, Minimizing the cost of capital maximizes the debt ratio which positively affects the share price performance, more over debt ratios leads to optimistic management expectations and probable future cash flows. This is supported by the theory of pecking order proposed by Myers and Majluf (1984). The theory states that firms favor internal finance sources; they employ their target dividend payout ratios to their investment opportunities although payout ratios and dividends are gradually familiar to shifts in the degree of important investment opportunities. In addition, Myers and Majluf (1984) stated that in the event that external finance is required, firms are mainly possible to offer safe security first that is to say they begin with debt then possibly convertible debt then equity comes as last resort. Myers' argument was such that businesses stick to a hierarchy of financing sources and prefer internal financing when available. Should external financing be required, debt would be preferred over equity. To add that the theory of pecking order was able to explain the negative link connecting debt ratio and profitability within an industry however; the theory did not entirely explain the capital structure differences between industries .This finding comports with the results of Harris and Raviv (1991) and Nimalathasan and Brabete (2010).

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