CAPITAL STRUCTURE AND CORPORATE PERFORMANCE: A CASE FOR TOURISM AND HOSPITALITY SECTOR OF ZIMBABWE

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Abstract

Coming up with an ideal or desired capital structure had just been a wish for corporations around the world. Literature had been done a lot on how capital structure can influence firm performance or value, but still not one organisation has achieved a desired optimal capital structure. The goal of this research is to investigate the relationship between capital structure and firm performance in the tourism and hospitality sector of Zimbabwe.

The research was based on four listed companies in the tourism and hospitality sector over the period 2009 to 2013. Data analysis was done using Stata 10 through simple multiple regression techniques. Findings of our study showed that performance of firms is significantly affected by their capital structure and their relationship is negative in nature. Moreover there is an inverse relationship between capital structure and share price performance, market capitalisation, earnings after tax and retained earnings.

Key Words: Capital Structure, Firm Performance, Debt, Equity, Hospitality.

1. Introduction

Franco Modigliani and Merton Miller in 1958 developed the MM theorem of capital structure which set out the cornerstones for modern thinking on capital structure and corporate finance. The reason being that of their nature of "irrelevance propositions": by providing a crystal-clear benchmark case where capital structure and dividend policy do not affect firm value, by implication these propositions help corporate managers to understand when these decisions may affect the value of firms, and why. The tourism sector had been undergoing refurbishment and other capital intensive programmes since dollarization ahead of the major sector event UNWTO. Most of these programmes were being financed mostly by debt from both regional and local providers. These programmes will in one way or the other have an impact on the capital structure of a company. The mixture of debt and equity that a firm uses is called Capital Structure. This means that Capital Structure is a mix of a company's long-term debt, specific short-term debt, and common equity and preferred equity to finances its overall operation and growth.

1.1 Background to the Study

According to the Ministry of Finance's 2011 budget, the real GDP growth rate of 9.3% for the year (F2010: 8.1%) was expected to be supported by high growth rates of 44% and 19.3% for the mining and agricultural sectors, respectively. The third highest contributor to GDP was expected to be the hospitality sector with a growth rate of 6% up from 0.5% for F2010. Despite the positive outlook, the sector's listed stocks have been performing badly on the local bourse. The bearish trend was probably justified, given the poor performance of the sector in 2009, which reflected low profitability. Consequently, market sentiment was against the sector. In 2010, however performance started to pick up, backed by recovery in tourism trends in line with the improving local and global economies.

To sustain this positive outlook the sector had been highly pronounced with a lot corporate finance events in the wake of raising funds for growth. Dominant listed players had been engaging in activities like rights issue, private placement, offer for subscription and debt (local, regional and international). All these activities were meant to recapitalize their operations in a bid to improve their business competitiveness and performance. However all these programmes have got negative and positive effects in as far as performance is concerned. Against this background of recapitalisation is the trade-off theory of capital structure. Trade-off considerations are important factors in deciding appropriate capital structure for a firm since they weigh the cost and benefits of extra capital through debt vs. equity. The marginal benefit of further increases in debt declines as debt increases while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. One would think that firms would use much more debt than they do in reality. The reason they do not is because of the risk of bankruptcy and the volatility that can be found in credit markets—especially when a firm tries to take on too much debt. The goal of this paper is to assess the relationship between capital structure and firm performance.

1.2 Statement of Research Problem

When companies raise funds to capitalise their operations, there is need for them to consider the effects to the overall performance of the business and share price of each capital source. Companies in the sector are striving for growth, when this growth attracts high debt to equity ratio. Performance of the sector since the inception of the multicurrency regime had been below average as evidenced by non-declaration of dividends and depressed share prices of the listed counters. The objective of the study is to assess the relationship between capital structure and firm performance and/or value in the tourism and hospitality sector. It is important for management to come up with an

optimal capital structure, that is a mix of debt and equity that maximises the stock price. And at any given time management has a target capital structure which is presumably the optimal one. The relevant ministry can also be guided on how best they can provide funding for the sector in a bid to optimise its capital structure.

2. Literature review

This section provides a discussion on what capital structure is, and its impact on the performance of firms and briefly look at some capital structure theories and their application in the corporate world. The literature review has attempted to appraise the broad issues involved with capital structure of companies and its impact on tourism corporates in Zimbabwe.

2.1Capital Structure issues and firm performance

(Vigario 2002) explained that Capital Structure of an organisation refers to the long term financing of a company. It is determined by the long-term debt and equity capital used by the business enterprise. As a matter of fact, the capital structure of a business enterprise should be ideal, i.e., according to the requirement of the business enterprise. The Capital Structure is basically the firm's debt and equity that is what the firm uses to finance its operations. This can be in the form of equity or debt. The decision on the capital structure that a firm is going to take on is basically coming up with ways of maximising the value of the firm. The proportion of short-term and long-term debt is considered in analysing a firm's capital structure. When people refer to capital structure, they most likely are talking about a firm's debt/equity ratio, which provides insight into how risky a company is. Usually a company financed heavily by debt poses greater risks because it is highly leveraged. (Chowdhury and Chowdhury 2010) carried robust analysis of samples drawn from the four most dominant sectors of industry i.e. engineering, food & allied, fuel & power, and chemical & pharmaceutical to provide a comparative analysis. A strong positively correlated association was evident from the empirical findings when stratified by industry

(Zeitun, and Tian, 2007) noted that Capital structure is one of the factors that impact on firm performance. This was best explained in terms of the trade-off between cost and benefits associated with increasing the debt in the capital structure of an organisation. Since bankruptcy costs exist, deteriorating returns occur with further use of debt in order to get the benefits of tax deduction. Therefore, there is an appropriate capital structure beyond which increases in bankruptcy costs are higher than the marginal tax-sheltering benefits associated with the additional substitution of debt for equity. Firms are willing to maximise their performance, and minimise their financing cost, by maintaining the appropriate capital structure or the optimal capital structure. Trade off theory was put forward by Scott (1977) demonstrating that as the increase of the ratio of bonds, the risk of the company will also increase, thus raising the bankruptcies, then decreasing the value of the company. Therefore, the optimum capital structure of company should be the equilibrium point caused by financial crisis cost and bankruptcy cost between section tax benefit and the rise of ratio of debt capital.(Zeitun and Tian 2007) also found that the short-term debt to total assets level has a significantly positive effect on the market performance measure. (Krishnan and Moyer, 1997) found a negative and significant impact of total debt to total equity (TD/TE) on return on equity (ROE). (Pratheepkanth 2011) from their analyses fount the relationship between the capital structure and financial performance to be having negative association of -0.114, with a Co-efficient of determination is 0.013. F and t values are 0.366, -0.605 respectively. It was reflecting the insignificant level of the Business Companies in Sri Lanka. Hence Business companies mostly depend on the debt capital. Therefore, they have to pay interest expenses much.

(Abor2005) investigated relationship between capital structures on beneficiary. He examined sample containing 22 firm listed at Ghana stock exchange during 1998-2002. He found positive relationship between short term debt to total asset ratio and firms beneficiary (stockholder equity efficiency). Also, results indicated that there was negative relationship between long term debt and stockholder equity efficiency and positive relationship between total debt and beneficiary because short term financing quota is big in sample firms(Aliakbar et al 2013) investigated the relationship between capital structure decisions with firm performance through big and small industries comparison in firms listed at Tehran stock exchange. A sample of 81 listed firms in Tehran stock exchange has been chosen and studied comparatively between big and small industries in four groups of industry during 2005-2011. Their results showed that there is positive and significant relationship between capital structure and firm performance. Significant level of F statistic represents that all regression model are valid.

(Izadinia and Rahimi 2009) investigated impact of capital structure on shares efficiency rate and earnings per share during 1998-2005 for sample containing 51 firms listed at Tehran stock exchange. The results showed that there was direct relationship between debt to stockholder equity ratio (independent variable) with shares efficiency rate and earnings per share (dependent variable). Also there was significant relationship between debt to asset ratio with earnings per share. (Mumtaz et al 2013) in a similar study of 83 listed companies of Pakistan found out that financial performance of firms is significantly affected by their capital structure and their relationship is negative in nature. Moreover capital structure of a firm is negatively related to its market value and also increases its risk level as the share of debt increases in the capital mix.

2.2. Capital structure and profitability

Many practitioners in the field of finance believe that capital structure includes share issuance, private investment, bank debt, business debts, leasing contracts, tax debt, retirement debt, deferred compensation for executives and employees, deposits, product related-debt and other probable debt. Capital structure is usually measured by the following ratios: ratio of debt to total asset, the equity ratio to total asset, a debt ratio to the equity and equity ratio to debt (Ahmadinia etal 2012). Profitability is defined as the ability of a firm to gain profit. Profitability is the result of all financial plans and decisions. The ratio of profit to sell, return on asset (ROA) and return on equity (ROE) are generally

applied to measure profitability.

2.3. Review of Some Traditional Capital structure Theories

Capital structure decision relates to finding out an optimum level of debt that a firm must have in order to maximise its value. There are two opposing schools of thoughts regarding optimum capital structure. One school of thought believes that the value of the firm is dependent upon its capital structure and there exists an optimal capital structure. Trade-off theory allows the bankruptcy cost to exist. It states that there is an advantage to financing with debt (namely, the tax benefits of debt) and that there is a cost of financing with debt (the bankruptcy costs and the financial distress costs of debt). The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. Empirically, this theory may explain differences in D/E ratios between industries, but it doesn't explain differences within the same industry.

The opposing school of thought argues that capital structure is irrelevant to the value of the firm. The basic theorem states that, under a certain market price process (the classical random walk), in the absence of taxes, bankruptcy costs, agency costs, and asymmetric information, and in an efficient market, the value of a firm is unaffected by how that firm is financed. It does not matter if the firm's capital is raised by issuing stock or selling debt. It does not matter what the firm's dividend policy is. Therefore, the Modigliani–Miller theorem is also often called the capital structure irrelevance principle. The weighted average cost of capital (WACC) should remain constant with changes in the company's capital structure. For example, no matter how the firm borrows, there will be no tax benefit from interest payments and thus no changes or benefits to the WACC. Additionally, since there are no changes or benefits from increases in debt, the capital structure does not influence a company's stock price, and the capital structure is therefore irrelevant to a company's stock price. However, taxes and bankruptcy costs do significantly affect a company's stock price hence Modigliani and Miller later included both the effect of taxes and bankruptcy costs.

3. Methodology

The study applies a non-experimental research design. The study was wholly based on secondary data. The data was obtained from the annual financial reports of the firms. The data capturing involved the tracking of a cross section of four firms listed in Tourism and Hospitality sector over the period 2009-2013. Non listed firms were not included because of nondisclosure of their financial statements. The data was captured in panel form. Panel data are repeated observations on the same cross section, typically of individual firms, observed for several time periods (Cameron and Trivedi; 2005). As such they contain both time series and cross sectional effects and consequently the data sets are typically larger than pure for pure cross sectional or time series data. Because of the larger sample size and the fact that explanatory variables vary over two dimensions (firms and years) the estimators based on panel data are generally more accurate than for other sources. Data was analysed using Stata 10.

3.1. Data analysis

To get impressions about how the variables relate, and verify if there are no incidences of multicollinearity, correlation analysis was done. The Lagrange Multiplier Test was done to check for panel effects, simple and multiple linear regressions were run.

3.2. Analysis and Discussion

Correlation Analysis-Correlation analysis tests the existence of a linear relationship between two variables. The primary objective is to measure the *strength* or *degree* of *linear association* between two variables. Correlation tests were conducted using the Pearson Product Moment correlation coefficient. Table 1 below shows the correlation matrix;

Table 1: Correlation matrix

```
. pwcorr de cp mv ebit eat ebt re  roce ldta sdta

                 |      de        cp        mv       ebit       eat       ebt        re
            de   |   1.0000
            cp   |  -0.0480    1.0000
            mv   |  -0.3744    0.1911    1.0000
          ebit   |   0.1096   -0.2909   -0.3050    1.0000
           eat   |  -0.0351   -0.2902   -0.1843    0.6731    1.0000
           ebt   |   0.0236   -0.3473   -0.1056    0.3802    0.7556    1.0000
            re   |  -0.1669   -0.1389    0.1517   -0.1173    0.2572    0.0834    1.0000
            tq   |  -0.2611    0.6623    0.3638   -0.2875   -0.2841   -0.3662   -0.1482
          roce   |   0.2957   -0.5776   -0.3168    0.8170    0.6460    0.5088   -0.0299
          ldta   |   0.3075   -0.1963   -0.3948    0.0839   -0.0447   -0.0715   -0.2230
          sdta   |   0.2903    0.0598   -0.2427   -0.2474   -0.0138   -0.0993    0.3625

                 |      tq      roce      ldta      sdta
            tq   |   1.0000
          roce   |  -0.5486    1.0000
          ldta   |   0.0266    0.0840    1.0000
          sdta   |  -0.0709   -0.1748    0.3273    1.0000
```

Where; de- debt to equity ratio, cp - closing price of share at year end, mv –market capitalisation at year end, ebit- earning before intrest and tax, eat-earning after tax, ebt-earning before tax, re - retained earnings, roce-return on capital employed, ldta-longterm debt to total assets, sdta-shortterm debt to total assets, tq – tobin's Q.

As shown Table 1 above there is an inverse relationship between capital structure and share price, market

capitalisation, earnings after tax and retained earnings. We therefore expect that the value of the firm, profitability (eat) and ability to retain earnings will decrease as debt to equity ratio increases. Table 1 also show that there is no risk as multicollinearity since the correlation coefficients are below 0.8 (Gujarati 1995). Only EBIT and ROCE have a correlation coefficient greater than 0.8, we however did not run any regression equation including the two variables at the same time, in order to control for multicollinearity.

3.3. Regression

Before running the regressions we had to test whether there are panel effects in the data series, if not, an ordinary least squares model would be ideal. The Lagrange Multiplier test was used to test the presence of panel effects. The null hypothesis of the test is that variance across entities is zero, i.e. there is, no significant differences across units (i.e. no panel effect). Lagrange multiplier test is shown in table 1 below;

Table 2:Lagrange Multiplier test

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        roce[id,t] = Xb + u[id] + e[id,t]

        Estimated results:
                             Var       sd = sqrt(Var)
                ───────────────────────────────────────
                  roce │  .0063275        .0795455
                     e │  .0054565        .0738679
                     u │        0               0

        Test:   Var(u) = 0
                          chi2(1) =      0.03
                        Prob > chi2 =    0.8558
```

We failed to reject the null hypothesis and conclude that there are no panel effects; we therefore use the linear regression model. An ordinary least squares model was run to check the impact of capital structure on the firm's value measured by the Tobin's Q as in table 3 below;

Table 3:Capital structure and Tobin's Q

```
. regress tq de, robust

Linear regression                                   Number of obs =     20
                                                    F(  1,    18) =   9.67
                                                    Prob > F      = 0.0061
                                                    R-squared     = 0.0682
                                                    Root MSE      = .31963

─────────────────────────────────────────────────────────────────────────
              │             Robust
          tq  │    Coef.   Std. Err.      t     P>|t|   [95% Conf. Interval]
─────────────┼───────────────────────────────────────────────────────────
          de  │ -.0354151   .0113916   -3.11    0.006   -.0593479   -.0114822
       _cons  │  .3995451   .0828461    4.82    0.000    .2254919    .5735984
─────────────────────────────────────────────────────────────────────────
```

The regression results indicates that capital structure have a negative impact on firm (value measured by the Tobin's Q). If debt –to- equity ratio increases by a unit, the value of the firm will decrease by 0.0354 units. 6.82% of the variation in firm value can be explained by movements in the company's capital structure. However in the long-run firm value is expected to increase after the firms in the hosipitality and tourism sector have retired the debt. Table 4 shows the regression results between ROCE and capital structure.

Table 4: roce and capital structure

```
. regress roce de, robust

Linear regression                                   Number of obs =     20
                                                    F(  1,    18) =  13.91
                                                    Prob > F      = 0.0015
                                                    R-squared     = 0.0874
                                                    Root MSE      = .07796

─────────────────────────────────────────────────────────────────────────
              │             Robust
        roce  │    Coef.   Std. Err.      t     P>|t|   [95% Conf. Interval]
─────────────┼───────────────────────────────────────────────────────────
          de  │  .0098872   .0026508    3.73    0.002    .004318     .0154563
       _cons  │ -.0064006    .01971    -0.32    0.749   -.0478097    .0350085
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```

Table 4 above indicate that there is a positive relationship between the return on capital employed and capital structure. As companies broadens their capital by borrowing, they will be able to generate more sales and consequently high return on capital employed. 8.74% of variations in return on capital employed can be explained by changes in the capital structure of the company.

Regressions were also done to determine the impact of capital structure on the firm's ability to retain earnings as shown in Table 5 below;

Table 5: Capital Structure and Retained Earnings

```
. regress re de ldta sdta, robust

Linear regression                                     Number of obs =      20
                                                      F( 3,     16) =    3.08
                                                      Prob > F      = 0.0574
                                                      R-squared     = 0.3042
                                                      Root MSE      = 4.0e+07

                             Robust
          re     Coef.     Std. Err.      t     P>|t|     [95% Conf. Interval]

          de  -4099262      1451671    -2.82    0.012    -7176667     -1021857
        ldta  -1.40e+08     1.11e+08   -1.26    0.226    -3.77e+08     9.60e+07
        sdta   2.26e+08     1.09e+08    2.07    0.055    -5092058      4.56e+08
       _cons  -2846671      8880238    -0.32    0.753    -2.17e+07     1.60e+07
```

As shown in table 5 above, the accumulation of debt (d/e) have a negative impact on the firm's ability to retain earnings for equityholders. Further analysis was done by breaking capital structure into its component parts, that is short term and long term debt. The objective being to analyse how each component is related to firm performance in the sector tourism and hospitality sector. The results indicate that there is a strong positive relationship between short term debt and retained earnings. This can attributed to the fact that most firms in the tourism and hospitality sector of Zimbabwe resorted to short term borrowings to refurbish and recapitalise their operation ahead of the lucrative international event, the UNWTO, hosted in in the country in August 2013. This is also consistent with the agency concept were directors opt for short term projects believed to be very profitable in the short term and the need to opt for short term source of finance for such as the finance costs are expected to be covered by higher earnings. However long term debt was found to have a negative but insignificant impact on the firm's ability to ratain earnings.

4. Conclusion

The study concludes that an increase in the debt to equity ratio has a negative impact on firm value, but it has a positive impact on return on capital employed. We also found that accumulation of debt has a negative impact on firm's ability to retain earnings, while short term financing for lucrative events have a positive impact on the firms ability to retain earnings.

Definition of Variables

$$Debt\ to\ Equity\ Ratio = \frac{Debt\ Capital}{Equity\ Capital}$$

$$ROCE = \frac{EBIT}{Total\ Capital}$$

$$Tobin's Q = \frac{Total\ Market\ Value}{Total\ Asset\ Value}$$

$$LDTA = \frac{Long\ term\ borrowings}{Total\ Assets}$$

$$SDTA = \frac{Short\ term\ borrowings}{Total\ Assets}$$

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