Does Capital Structure Influences Working Capital Intensity and Growth Opportunity of a Firm: An Evidence from Tanzanian Firms

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Abstract
The study was based on determination of influences of capital structure on the working capital and growth opportunity of the listed companies in Tanzania. The study targeted to meet three objectives. These objectives are to investigate on how Tanzanian listed companies behave in their capital structure, working capital intensity and growth opportunity, to examine the influence of the capital structure on working capital intensity and growth opportunity of Tanzanian listed companies and to examine the potency of working capital (current asset) in advocacy of growth opportunity of Tanzanian listed companies. The study used descriptive study strategy on ten listed companies at Dar Es Salaam Stock Exchange as per October, 2012. The documentary analysis and website survey used to collect the secondary data. The multivariate multiples regression model used to analyses data. The findings of the study lay that the listed companies of Tanzania are unleveraged and growing fast and are illiquidity. It is found that there is no significant relation of capital structure, working capital and growth opportunity of Tanzanian listed companies. The potency of current asset to generate sales of companies is averaged at 0.555 Tanzanian shillings per one shilling of sales. It is recommended that companies aiming for growing should adhere to investment opportunity available in their companies and should prefer internal financing to external financing.

Keywords: Tanzanian listed companies, Capital structure, and Working capital and Growth opportunity

1 Staff Officer Community Policing (MBA-Finance), Mwanza Regional Police.
1. Introduction

1.1 Background of the study

One of the challenges face corporate managers in the world is how capital structure influences the working capital and growth opportunity of their companies. One of the common questions asked by these managers and other decision makers is “does capital structure influence the working capital (liquidity) and growth opportunity of companies?” and if does influence, on how way? Addressing this problem will be advantageous for all corporate managers and other decision makers in the finance field. This study addressed the problems and come with concrete recommendations. In finance theory the capital structure decision is still confusing and more debatable for researchers. Managers and other key decision makers are still facing problem or difficulties in setting an optimal capital structure in companies. Most of the practitioners and researchers try to suggest the factors that influence the capital structure decision, such as Bundala, (2012), Bundala and Machogu (2012), Ebadi, Thim and Choong(2011), Ozkan (2011) and many others found that profitability, company size, and age of the company, asset tangibility, dividend payout and liquidity. These factors are not conclusive as well as are micro factors that can be influenced by technology and the operative political policies in a particular country. From this fact, there is a need to test the established determinants geographically to reflect the reality of operation of our companies.

The growth of any nation highly depends on the stable, profitable and survival of their companies. The economy of a country can be determined by the level of the companies to sustain objectively. The issue on how the company can survive for growth was addressed by various researchers in the world. The various determinants or factors of company growth were determined theoretically and empirically. There is no doubt that the determinants or factors that affect or influence the growth of the include technology, size of a company, asset tangibility, management and skills, resource as determined by researchers empirically.

The company comes to have hybrid definitions and not limited as suggested by Penrose (1959). The company has many definitions relatively to the study approach and researcher philosophy. A definition of a company is a key issue to support a researcher problem, and to lead the study process on the issue of company study. Many of researchers define the company, by excluding abstract or qualitative indicators such as management and skills, goodwill, technology, market shares and manpower. The quantitative indicators or measures such as assets, size of the company and manpower are mostly included in the definition of the company that provides sided or unbalanced definition of the entity.

The issue here is not to seek a relevant or an appropriate definition of a company, but to run with a comprehensive definition of a company so as to have a wide chance of generalization of the study findings. A better definition of company used by this study is based on the business environment, which including both components of internal and external business environment. From this fact, a company is an open system. The external environment is a macro component of the company, since the internal environment is a micro component of a company. This study investigated the influence of capital structure on working capital and
growth opportunity of companies listed at Dar es Salaam stock Exchanges (DSE). The central issue is to know how Tanzanian listed companies behave in their capital structure, working capital and growth opportunity. This is a key issue and advantageous for managers, practitioners, researchers and other decision makers.

1.2 The statement of the problem

Poor or delayed financial decisional information for corporate managers and other stakeholders lead to poor decisions in their capital structure, working capital and growth opportunity. The information after injury is the same as the medicine after dearth! Most of corporate managers and other decision makers face difficulties on how the capital structure of their companies influences the liquidity and growth opportunity in the companies? They lack relevant financial decisional information. This is a problem! The working capital and growth opportunity of companies are not considered in the early of forming the strategic capital financing mix. The deadly mistake done by the manager and other decision makers is to isolate or to take into consideration later in the operation of the capital. They are making decisions in a dark zone. The working capital is the oil of the company, should be kept optimal for the operation of the company, and should be directed or weighted to the growth of the company. The growth opportunity of the company is the desired outcomes of the companies. The linking investigation of capital structure, working capital and growth opportunity of companies is more advantageous and necessary required establishing the basic guidelines for decision maker on this field. This study provided the relevant decisional information for both corporate managers and other key corporate stake holders on how the capital structure influences the working capital and growth opportunity of a company.

1.3 Objectives of the study

1.3.1 The general objective

The general objective of the study was to determine the influence of capital structure on the working capital and the growth opportunity of the listed companies in Tanzania.

1.3.2 Specific objectives

The study was guided with the following specific objectives:-

1. To investigate how Tanzanian listed companies behave in their capital structure, working capital intensity and growth opportunity

2. To examine how the capital structure influences working capital intensity and growth opportunity of Tanzanian listed companies

3. To examine the potency of working capital (current assets) in advocacy of growth opportunity of Tanzanian listed companies

1.4 Study questions

1. How Tanzanian listed companies behave in their capital structure, working capital intensity and growth opportunity?
2. How the capital structure influences working capital intensity and growth opportunity of Tanzanian listed companies?

3. What is the potency of working capital (current assets) in advocacy of growth opportunity of Tanzanian listed companies?

1.5 Significance of the study

The study lays down the empirical foundation on the finance field which is more advantageous for managers, academicians, researchers and other decision makers in the company. The study explained the capital structure in working capital and growth opportunity of companies’ perspectives. It enlightens the relations of these three critical areas of finance theory. This is powerful decisional information for corporate manager since it is provides the interaction profile of capital structure, working capital and growth opportunity of companies. The relevancy of this study is to provide the financial decisional information for corporate managers and other corporate stakeholders. This information is a powerful tool for corporate decision makers to make relevant and timely decisions on these areas of finance theory to affect the growth of the companies.

1.6 Study hypotheses

The study guided with the following null hypotheses:-

H01: There is no significant relationship between financial leverage and sales growth rate  
H02: There is no significant relationship between financial leverage and net income growth rate  
H03: There is no significant relationship between financial leverage and inventory-sales ratio  
H04: There is no significant relationship between financial leverage and dividend growth rate  
H05: There is no significant relationship between financial leverage and cash-sales ratio  
H06: There is no significant relationship between financial leverage and debtor-sales ratio  
H07: There is no significant relationship between financial leverage and creditor-sales ratio  
H08: There is no significant relationship between financial leverage and structural health ratio  
H09: There is no significant relationship between financial leverage and current asset --sales ratio  
H010: There is no significant relationship between financial leverage and liquidity (Current) ratio
2. Literature review

2.1 Theoretical reviews

The theory of capital structure has been discussed earlier by Modigliani and Miller (1958) in their seminal paper assessing the financial arrangement (source of capital) in the company and its cost of capital. The paper raised debates on their propositions set by their paper. In 1963 (Modigliani and Miller) made the correction on the tax effect in the financial arrangement done by a company. This adjustment includes the influence of tax decision (tax benefit or advantage) associated to the leveraged company. The company’s long-run capital structure will contains both debt and equity capital, investment planning must recognize that, over the long pull, all of the company’s assets are really financed by a mixture of debt and equity capital even though one kind of capital may be raised in any particular year (Modigliani and Miller, 1963). But, as the general rule, the company should issue safe securities before risky ones, if the company does not seek external funds, it is better off issuing debt than equity securities (Myers, 1984).

Miller (1988) invited by the editor of the American Economic Review to the 30th anniversary of the Modigliani and Miller paper, present a paper on the Modigliani-Miller Propositions after thirty years. The paper also addressed the challenge of the tax in the financial requirement arrangement in a company, a part from tax benefit for leveraged companies; addressed some possible non-tax gain from leveraging. Myers and Majluf (1984) acted on the asymmetry of information as the decisional tool for a company to choose the financial source in a company. Companies actually seem to favour debt over equity issues, not the reverse. They believe asymmetric information about company value is a stronger determinant of financing behaviour, than asymmetric information about risk, and they will so assume is subsequent comments, although future empirical study could of course prove them wrong (Miller and Majluf, 1984).

2.2 Empirical review

The current studies done in Tanzania by Bundala (2012) and Bundala and Machogu (2012) on the capital structure of Tanzanian listed companies found that, growth rate is not a determinant of the capital structure but, profitability and asset tangibility are the two key determinants. The company size, dividend payout are suggestive determinants. The financial leverage is positively related to liquidity in a company, and positively related to growth rate at R-Sq (adj) of 0.00 per cent (Bundala and Machogu, 2012). The growth rate found correlated with the liquidity ratio at -0.363. This implies that there is no significant relationship between capital structure and growth opportunity of the company. The company will grow if investing in fixed asset that is having high asset tangibility. The issues not found is that, how optimal level of liquidity and leverage may foster the growth of the company. Does the growth of the company depend on the leverage and liquidity levels?

The study done by Anderson (2002) on the capital structure, company liquidity and the growth, by using panel data sets of Belgian and UK companies, tested the relationships among the company’s financial structure, its choice of liquidity asset holdings and growth.
Empirically found that the financial leverage is positively related with the liquidity of a company. The impact of company to hold its asset in liquidity form, does affect the growth of the company and the capital structure in a company (Anderson, 2002). Zhao and Wijewardana (2012) in their study done in Colombo Security Exchange, Sri Lanka found that growth and financial leverage are positively related. The study done by Lang, Ofek and Stulz (1995) on leverage, investment and company growth found that leverage does not reduce growth for companies known to have good investment opportunities, but negatively related to growth for companies whose growth opportunities are either not recognized by the capital market or are not sufficiently valuable is overcome the effects of their debt overhang. The negative relationship between financial leverage and growth could be due to the fact that leverage restricts managers of companies with poor investment opportunities from investing when they should not.

Arabzadeh and Meghminejad (2012) using companies listed at Tehran Stock Exchange, sampled 52 companies, by application of regression and correlation found that financial leverage is negatively related. Growth is in positive to financial leverage, which is not in conformity with expected resulted, since it was assumed that companies with higher growth must has lower leverage. Singhania and Seth (2010), using 963 listed companies at the Bombay Stock Exchange (BSE), investigating the key company characteristics that determine capital structure. They found that, there is an inverse relation between the debt ratio of the companies and the growth, the liquidity and interest coverage ratio. Lu and Wang (2010), on their study on the company growth and liquidity constraints in the Taiwanese Manufacturing Companies, found that liquidity engender a positive effect on growth. Iqbal, Hameed and Ramzan (2012), studies on the impact of debt capacity on company’s growth, found that there is a positive impact of debt capacity on the company’s growth. Paydar and Bardai (2012), investigating the leverage behaviour of manufacturing companies in Industrial sector, in Bursa Malaysia, using 117 manufacturing companies, found that growth has insignificant effect on leverage ratio. The study done by Sharif, Naeem and Khan (2012) in Pakistan in the Insurance sector, found that growth opportunities is not a determinant of Insurance sector’s capital structure, and liquidity has negative significant relationship with leverage ratio. Booth, at el (2001), investigated factors that influence the capital structure in developing countries, found that the factors that influence the capital decisions in developed countries are relevant also in the developing countries, despite the profound differences in institutional factors across those developing countries. Ali, Akhtar and sadaqat (2011) studied in banking sector in Pakistan, reports the negative relations of leverage and liquidity.

Mishra (2011) studied the determinants companies in the manufacturing sector in Singapore found that growth rate, defined as the change percentage of the total assets in a company, is positively related to leverage. Kumar, at el. (2012) on their study on capital structure in the pharmaceutical industries in India, reveal that the growth rate is one the most important determinant of leverage in pharmaceutical Companies of India and India and positively related to the debt ratio. The higher growth rate implies a higher demand for fund, and ceteris paribus (Kumar, at el.2012). The study on capital structure in the Oil and Gas sectors was carried out by researchers in Pakistan, Sabir and Malik (2012) found that liquidity is positive.
relates with leverage. Companies having liquidity resources are reluctant to borrow funds externally; liquidity is negatively to financial leverage (Ramlall, 2009). Ozkan (2001) found that liquidity is negatively related to financial leverage, since encourage high expenses associated to shareholders in a company. Myers (1984) stated a negative relationship between growth and financial leverage due to high interest rates or restrictive covenants that discourage debt taking. Titman and Wessels (1988) profound the negative relationship due to reluctance of shareholders to lend to equity controlled companies. Baskin (1989) reports significant positive relation between growth and leverage.

Adeyemi and Oboh (2011) studying listed companies in Nigeria suggested that the listed companies should strategically plan and manage their capital structure in order to maximize their market values. They found positive relationship exists between a company’s choice of capital structure and its market value in Nigeria. The impact of liquidity in a company can be perceived in two aspects, these are, companies with more liquidity (more current assets) tends to use more external borrowing, because of their ability in paying of their liabilities, in other side, companies with more liquidity will decrease external financing, relying on their internal funds, thus liquidity ratios may have mixed effects on the capital structure decisions. Growth rate do not appear to suggest and significant contributions on the capital structure decision of property companies (Mohamood, at el. 2011). Chen and Chen (2011) reported that to grow faster companies require more working capital, which needs more external debts. They concluded that, companies growth does not affect the capital structure in all listed, as the relationship between growth rate and capital structure is no significant in Taiwan.

Ahmed and Hishami (2009) found that asset structure and growth have no evidence of static-order trade off in the Malaysian Capital Market. Padachi, at el. (2010) reveals the disproportional increase in current asset investment in relation to sales resulting in sharp decline in working capital structure. They suggested that the SMEs should concentrate on the short term funds since they frequently suffer from the lack of operating capital. Zang,Chen and Gu (2011) found that operating ability have positive effects on promoting the growth of the listed paper companies, but the debt paying ability has double effects on the grow ability. The effect of short-term assets was found to be particularly significant and positive mainly on the short-term financing of companies, which implies that a large part of the external financing of companies examined is used to cover their working capital needs (Ioannis, Panayiotis and Konstantinos, 2006). They suggested that companies with high growth prospects limit external financing. The positive relation between changes in working capital and net debt issues might also reflect timing issues (Frank and Goyal, 2003). They urged that if a company issues long –term debt then it receives cash. Until the company spends that cash, it can be put into bank accounts or other short-term investments that are included in working capital. Companies working for new ways to stimulate growth should improve financial performance and reduce risk, fund tied up in working capital can be seen as hidden reserves that can be used to fund growth strategies, such as capital expansion (Appuhami, 2008). The ways of managing working capital efficiently varies from company to company since it depends on industries, the nature of the business, business policy, strategies and others which tied up on the objective of the business company.
Shyam-Sunder and Myers (1999) urged that changes of debt ratios are driven by the need for external funds, not by any attempt to reach an optimal capital structure. Ebadi, Thim and Choong (2011) studying the impact of company characteristics on capital structure in Iranian listed company, found that liquidity is negatively related with debt ratio, but the growth rate is positively related with the debt ratio. Sen and Oruc (2008) basing on their study on testing of pecking order theory in ISE(Istanbul Stock Exchange market) reported that, no meaningful relation was detected for company growth and financial leverage, a negative relation was found out between asset structure and leverage level. Their study supported by Najjar and Petrov (2011) that found that there is no significant relationship between growth rate and debt ratio, and they concluded that, higher growth implies better internal financing lower need for external financing.

3. Study methodology

3.1 Study Design

Study design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the study purpose with economy in procedure (Kothari, 2004). The study design stands for advance planning of the methods to be adopted for collecting the relevant data and the techniques to be used in their analysis, keeping in view the objective of the study and the availability of the staff, time and money. The study design, in fact has a great bearing on the reliability of the results arrived at and as such constitutes the company foundation of the entire edifice of the study work (Kothari,2004). The study used descriptive approach (quantitative), the method appropriately describe the fact and practicality of the reality that Tanzanian Companies operate. The study is designed to use statistical inference to reach the conclusion and facts to be addressed. The study done in Tanzania involving ten companies listed at Dar es Salaam stock Exchange. The main reason to select Tanzania is reflect actual activities done in the least developing countries.

The population of the study is all listed companies at Dar Es Salaam Stock Exchange in Tanzania as per 20th July; 2012.The sample size of this study is ten listed companies at the Dar es Salaam.

The study used the purposive sampling procedure due to availability of data and other relevant information useful for this study. The study used secondary data, from ten companies listed at the Dar Es Salaam Stock Exchange (DSE) in Tanzania. The website and document survey strategies used to collect the data from the sampled companies. The financial statements and annual report were surveyed online and the relevant information for this study were extracted and used for study. The methods used to collect data are simple, cheap, save time and does not require large number of field staff.

3.2 Specification of Model

The study used the multivariate multiple regression model. The equation below describes the specification model used by this study.
Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10} ................................(1)

Where
X_1 = Sales growth rate
X_2 = Net-income growth rate
X_3 = inventory-sales ratio
X_4 = Dividend growth rate
X_5 = Cash-sales ratio
X_6 = Debtor-sales ratio
X_7 = Creditor-sales ratio
X_8 = Structural health ratio
X_9 = Current assets-sales ratio
X_{10} = liquidity (current) ratio
a = Constant term of the model
Y = Financial leverage
b’s = Coefficients of the model.

3.3 Definition of variables

3.3.1 Dependent variable

Financial leverage (Y) the ratio of total debts to the total liabilities, it is given by
Y = TD/TA ..................................................................................................................................................(2)

Whereby,
TD = Total Debts
TL = Total Assets

3.3.2 Independent variables

Sales growth ratio (X_1) is defined as percentage changes of sales for a period more than one year. It is given by:-
X_1 = (TS_n − TS_{n-1}) / TS_{n-1} ............................................................................................................(3)

Whereby,
Total sales for a present year
Total sales for a previous year

Net-Income growth ratio ($X_2$) is defined as the percentage change of the total net income for the period of more than one year. It is given by

$$X_2 = \frac{NI_n - NI_{n-1}}{NI_{n-1}}$$

Whereby,

$NI_n$ = Net Income for the present year

$NI_{n-1}$ = Net Income for the previous years

Inventory-sales ratio ($X_3$) is defined as the total inventory to the total sales in a year. It is given by:

$$X_3 = \frac{TI}{TS}$$

Whereby,

$TI$ = Total inventory for a year

$TS$ = Total sales for a year

Dividend growth ratio ($X_4$) is defined as the time weighted percentage change of dividend distributed for a range of time or period. It is given by:

$$X_4 = N^{-1} \left( \frac{D_n - D_{n-1}}{D_{n-1}} \right)$$

Whereby,

$N$ = Period considered in measuring the dividend growth rates

$D_n$ = Dividend distributed for the present year

$D_{n-1}$ = Dividend distributed for the previous year

Cash-sales ratio ($X_5$) is defined as the ratio of total cash (in hand and bank) to total sales in a year. It is given by:

$$X_5 = \frac{CB}{TS}$$

Whereby,

$CB$ = Total cash in hand and in bank in a year

$TS$ = Total sales in a year

Debtor-sales ratio ($X_6$) is defined as the total account receivable to the total sales to for a year. It is given by:

$$X_6 = \frac{TAR}{TS}$$
Whereby,
TAR = Total account receivable for a year
TS = Total Sales for a year

**Creditor-sales ratio** ($X_7$) is defined as the ratio of total account payable to the total sales for a year. It is given by:

$$X_7 = \frac{TAP}{TS}$$  

Whereby,
TAP = Total account payable for a year
TS = Total sales for a year

**Structural health ratio** ($X_8$) is defined as ratio of net assets to current assets. It is given by:

$$X_8 = \frac{NA}{TCA}$$  

Whereby,
NA = Net asset for a year
TCA = Total Current Assets

**Current asset–sales ratio** ($X_9$) is defined as the ratio of total current assets to total sales in a year. It is given by:

$$X_9 = \frac{TCA}{TS}$$  

Whereby,
TCA = Total Current Assets in a year
TS = Total Sales in a year

**Liquidity (Current) ratio** ($X_{10}$) is defined as the ratio of the total current assets to the total current liabilities. It is given by:

$$X_{10} = \frac{TCA}{TCL}$$  

Whereby,
TCA = Total Current Assets
TCL = Total current Liabilities

### 3.3.3 Extraneous variables

These are independent variables that are not related to the purpose of study, but may affect the dependent variable. These are other company characteristics including profitability.
company size, dividend payout, asset tangibility and age of the company. These variables are treated to be constant.

4. Finding presentation and discussions

4.1 Introduction

The study aimed to investigate the behaviour of the listed companies in their working capital intensity (liquidity) and growth opportunity. Data from ten non-financial companies listed at Dar es Stock exchange were extracted. The data analysed by using multivariate multiple regression model with the aid of Minitab 6.1 software.

4.2: How Tanzanian listed companies behave on their capital structure and working capital intensity and growth opportunity

The descriptive statistics were computed to profile the companies’ characteristics on capital structure, working capital intensity and the growth opportunities of the company. The aimed statistical measures were mean, standard deviation and range (Table 4.1).

| Table 4.1: Descriptive Statistics for dependent and independent variables |
|-----------------------------|------------------|-------|-------|----------|----------|
| Variable                    | N    | N*   | Mean  | StDev  | Minimum | Maximum  |
| Dependent                   |      |      |       |        |         |         |
| Financial leverage          | 10   | 0    | 0.4370| 0.2067 | 0.2540  | 0.8744  |
| Independents                |      |      |       |        |         |         |
| Sales growth rate           | 10   | 0    | 0.333 | 0.519  | 0.083   | 1.798   |
| Net Income growth rate      | 10   | 0    | 0.508 | 1.146  | 0.002   | 3.737   |
| Inventory-Sales ratio       | 10   | 0    | 0.1328| 0.0916 | 0.0178  | 0.3105  |
| Dividend growth ratio       | 10   | 0    | 2.37  | 6.16   | -0.14   | 19.82   |
| Cash-Sales ratio            | 10   | 0    | 0.1015| 0.0808 | 0.0332  | 0.2722  |
| Debtor-Sales ratio          | 10   | 0    | 0.1149| 0.0757 | 0.0424  | 0.2468  |
| Creditor-Sales ratio        | 10   | 0    | 0.1432| 0.0495 | 0.0827  | 0.2412  |
| Structural health ratio     | 10   | 0    | 1.522 | 0.676  | 0.435   | 2.495   |
| Current asset -Sales        | 10   | 0    | 0.555 | 0.590  | 0.246   | 2.186   |
| Liquidity (Current) ratio   | 10   | 0    | 1.706 | 0.963  | 0.162   | 3.031   |

Source: Field data (2012)

The table 4.1 portrays that companies employ less debt than equity in their capital structure, about 43.70 per cent. The companies grow at the average of 33.3 percent in sales, 50.8 percent in net income and 237 percent in dividend. The growth in dividend is extremely large due to fact that growth of net income is significantly supportive for growth of dividend, and their capital structures are weighted on equity.
The working capital intensity of companies profiled that is about 1:1.706, that implies that companies have little ability of paying their liabilities. The liquidity of companies ranges from 0.162 to 3.031. This is due to the different nature of the sampled companies. The one shilling invested in current assets stimulate 2.495 shillings of the assets that the owner can lay claim to. This implies that companies invested more in current assets tend to have structural health ratio.

Working capital ratios weighted to sales to diagnose the ability or potency of these components or working capital intensity to stimulate sales in a company. The assumption is taken that, the growth of the company will be determined in the sales growth perspective. The one shilling generated on sales in a company affected by 7.53, 9.85, 8.70, 6.98 and 1.80 shillings invested in inventory, cash, debtor, creditor and current asset respectively. For this fact inventory stimulate the sales growth of the company. Therefore the inventory has positive relationship over sales growth of the company. The company ability to meet its liabilities is averaged at 1.706 shillings per each of one shilling owed by the creditor. The companies have optimal pay ability to meet their debts obligations. The companies pay ability range from 0.162 to 3.031.

4.3: How the capital structure influences working capital intensity and growth opportunity of Tanzanian listed companies

The multicollinearity diagnosis of the explanatory variables was done (Table 4.2). The investigation of multicollinearity profiles that only two explanatory variables dividend growth rate and net income growth rate are found to be collected at about 0.996. This is extremely correlation. From this fact it implies that the net income impact on the financial leverage will be same as the impact of the dividend growth rate for this study.

Table 4.2: Correlations matrix for independent variables multicollinearity examinations

<table>
<thead>
<tr>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X7</th>
<th>X8</th>
<th>X9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net-income Growth rate X2</td>
<td>-0.072 0.844</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory-sales ratio (X3)</td>
<td>-0.355 0.314</td>
<td>0.312 0.381</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividend growth rate (X4)</td>
<td>-0.073 0.841</td>
<td>0.996 0.000</td>
<td>0.293 0.411</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash –sales ratio (X5)</td>
<td>-0.110 0.763</td>
<td>-0.191 0.597</td>
<td>0.352 0.318</td>
<td>-0.232 0.520</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtor-Sales ratio (X6)</td>
<td>0.051 0.888</td>
<td>0.024 0.948</td>
<td>-0.677 0.031</td>
<td>0.013 0.971</td>
<td>-0.005 0.989</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creditor-sales ratio (X7)</td>
<td>-0.362 0.304</td>
<td>-0.383 0.274</td>
<td>-0.031 0.933</td>
<td>-0.415 0.233</td>
<td>0.298 0.404</td>
<td>0.369 0.293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural health ratio (X8)</td>
<td>-0.251 0.484</td>
<td>0.026 0.944</td>
<td>0.666 0.035</td>
<td>0.022 0.952</td>
<td>0.357 0.312</td>
<td>-0.744 0.014</td>
<td>-0.307 0.387</td>
<td></td>
</tr>
</tbody>
</table>
Current asset-sales ratio \((X_9)\) & -0.150 & 0.679 & -0.092 & 0.800 & 0.294 & 0.410 & -0.054 & 0.883 & 0.337 & 0.340 & -0.273 & 0.445 & 0.105 & 0.772 & 0.437 & 0.207 \\
Liquidity ratio \((X_{10})\) & -0.244 & 0.497 & 0.105 & 0.773 & 0.193 & 0.594 & 0.066 & 0.856 & 0.460 & 0.181 & 0.141 & 0.697 & -0.181 & 0.616 & 0.142 & 0.696 & -0.445 \\

*cell contents: Pearson correlation

P-Value

Source: Field data (2012)

The table 4.2 shows the correlation of explanatory variables used in the study. The tables portrays that the net-income growth rate highly correlated the sales growth. From this, fact the sales growth and net-income growth with be a bundle of variable represents the growth of the company. The explanatory variable will represents in its representative power not a bundle of variables.

Table 4.2: Stepwise Regression on financial leverage and working capital ratios and growth rates of the listed companies

Alpha-to-Enter: 0.1 Alpha-to-Removes: 0.1

Response is \(Y\) on 10 predictors, with \(N = 10\)

<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>T-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.7235</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural health ratio ((X_3))</td>
<td>-0.188</td>
<td>-2.21</td>
<td>0.058</td>
</tr>
<tr>
<td>S.E</td>
<td>0.173</td>
<td>R-Sq 37.89</td>
<td>R-Sq (adj) 30.13</td>
</tr>
</tbody>
</table>

**Best alternatives variables:**

- **Coeff**
- **t-value**
- **p-value**
- **R²**
- **Adj R²**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sales growth rate ((X_1))</th>
<th>Debtor-Sales ratio ((X_4))</th>
<th>Creditor-Sales ratio ((X_7))</th>
<th>Inventory-Sales ratio ((X_3))</th>
<th>Liquidity (Current) ratio ((X_{10}))</th>
<th>Current asset-Sales ratio ((X_9))</th>
<th>Dividend growth rate ((X_4))</th>
<th>Net Income growth rate ((X_2))</th>
<th>Cash –Sales ratio ((X_5))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coeff</strong></td>
<td>0.2045</td>
<td>1.319</td>
<td>1.896</td>
<td>-0.9278</td>
<td>-0.0820</td>
<td>-0.0882</td>
<td>-0.0084</td>
<td>-0.0405</td>
<td>-0.5669</td>
</tr>
<tr>
<td><strong>t-value</strong></td>
<td>1.69</td>
<td>1.56</td>
<td>1.44</td>
<td>-1.28</td>
<td>-1.17</td>
<td>-0.74</td>
<td>-0.73</td>
<td>-0.65</td>
<td>-0.64</td>
</tr>
<tr>
<td><strong>p-value</strong></td>
<td>0.129</td>
<td>0.157</td>
<td>0.187</td>
<td>0.238</td>
<td>0.276</td>
<td>0.483</td>
<td>0.486</td>
<td>0.533</td>
<td>0.539</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>26.3%</td>
<td>23.4%</td>
<td>20.6%</td>
<td>16.9%</td>
<td>14.6%</td>
<td>6.3%</td>
<td>6.3%</td>
<td>5.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td><strong>Adj R²</strong></td>
<td>17.100%</td>
<td>13.800%</td>
<td>10.700%</td>
<td>6.500%</td>
<td>3.900%</td>
<td>0.000%</td>
<td>0.000%</td>
<td>0.000%</td>
<td>0.000%</td>
</tr>
</tbody>
</table>

Source: Field data (2012)

The table 4.3 shows the stepwise regression results on the influence of capital structure on working capital intensity and growth opportunity. The results evidenced that structural
health ratio (SHR) marginally influenced by the capital structure of a company. The working capital ratios weighted to sales in order investigates on how each one shilling of sales generated by amount invested on working capital in a company.

The regression was run to investigate the relationship of the capital structure and working capital and the growth of the company. The regression model profiles that the more the debt employed by the company in its capital structure the less the working capital intensity and the higher growth opportunity of the company.

4.3.1: Regression lines on capital structure, working capital intensity and growth opportunity

The capital structure of companies is a composite of debts and equity invested, the investigation on how capital structure influences the working capital intensity and growth opportunity was done by regressing the both variables. The structural health ratio found to be most factor influenced by capital structure at the marginal level (Table 4.3). The regression profiles the way or nature of influence (Figure 4.1).

Figure 4.1: The regression model of financial leverage and structural health ratio

![Fitted Line Plot](image)

Source: Field data (2012)

The figure 4.1 shows the relationship between financial leverage and structural health ratio. The graph portrays that financial leverage and structural health ratio relates in negative ways. The relation is determined at 37.9 percent.

The relationship between financial leverage and liquidity (current) ratio is evidenced to be poor as illustrated in figure 4.2. It is found that financial leverage and liquidity (current) ratio negatively related (Figure 4.2).
Figure 4.2: The regression model of financial leverage and Liquidity (current) ratio

\[
\text{Financial leverage} = 0.5770 - 0.08201 \times \text{Liquidity (Current) ratio}
\]

Source: Field data (2012)

The figure 4.2 shows the relationship between financial leverage and liquidity (current) ratio. The figure confirms the negative relations of financial leverage and liquidity ratio. The relations determined at 14.6 percent.

The sale growth proxy for company growth evidenced that little influenced by the capital structure of a company. The regression model (Figure 4.3) confirms that it positively related but with minimal level of determination, of about 26.3%

Figure 4.3: The regression model of financial leverage and sales growth rate

\[
\text{Financial leverage} = 0.3690 + 0.2045 \times \text{Sales growth rate}
\]
Source: Field data

The figure 4.3 shows the relations of financial leverage and sales growth rate. The figure portrays that the sales growth little influenced by financial leverage proxy for capital structure. It is positively related.

4.3.2: Trend analysis of the capital structure, working capital intensity and growth opportunity of companies

To make thorough investigation on the behaviour of the companies on their capital structure, working capital intensity, and growth opportunity, the trend analysis was established to profile how the companies making decision on the named areas for a period of three years. The trend analysis shows how companies behaving towards to each kind of the named corporate decisions.

(a) Capital structure trend analysis

The capital structure trend was established to examine the pattern trend or behaviour of the companies on the debt and equity mixing. The trend shows that the debt components in the capital structure decreases year to year. The trend shows the negative relations with the number of year. The companies of Tanzania as the year of time going, they are substituting their capital structure with equity financing. The listed companies of Tanzania are equity financing behaved. They prefer equity financing to debt financing (Figure 4.4)

Figure 4.4: Trend analysis for financial leverage proxy of capital structure of Tanzanian listed companies

Source: Field data (2012)
The figure 4.4 shows the growth curve model for financial leverage proxy of capital structure. The trend portrays negative relations of financial leverage and number of years. The listed companies prefer equity to debt financing. Mean Absolute Deviation (MAD) and Mean Absolute Percentage Error (MAPE) and Mean square deviation (MSD) –the forecast accuracy tools displays in small values indicate the accuracy of the fitted trend equation. Due to this fact, the model is best for forecasting the behaviour of financing in the Tanzanian listed company.

(b) Trend analysis of the sales growth proxy of company growth opportunity of the Tanzanian listed companies

The trend analysis on the sales growth of the companies sampled was done, by the intention of examining how these companies affected by their behavior of preferring equity financing. The trend shows that as companies dropping the debt financing, companies grow. The positive trend was evidence for three years (Figure 4.5). That is to say, equity financing advocates growth of the company.

Figure 4.5: Trend analysis for sales growth rate proxy of growth opportunity of Tanzanian listed companies

Source: Field data (2012)

The figure 4.5 shows the growth curve model of sales growth rate of the listed companies of Tanzania. The trend shows that growth rate increases as the number of years increases. The graphs profile acute increases of sale growth from 2010 to 2011. This increase related to the acute drop of financial leverage in the figure 4.4, on the same range of years, from 2010 to 2011.
The model is not best model for performance forecast since MAPE of 35.2315, MAD of 0.1160 and MSD of 0.0244 are not smaller by comparison of the previous model on capital structure growth.

(c) Trend analysis of the liquidity (current) ratio proxy of working capital intensity of the Tanzanian listed companies

The working capital of accompany has influence on the corporate operations, basing on the daily operations. The working capital is an oil of the engine of a corporation, that is, capital structure. The trend on the working capital (Current) ratio was established to examine how listed companies in Tanzania financing its current asset. It is evidenced by the graph that, the working capital intensity increases as the number of years simultaneous with the growth opportunity but negatively to the debt ratio. The more working capital in a company substitutes the need of debt financing in a company (Figure 4.6).

Figure 4.6: Trend analysis for liquidity (Current) ratio proxy of working capital intensity of Tanzanian listed companies

Source: Field data (2012)

The figure 4.6 shows the growth curve model of the liquidity (current) ratio of the Tanzanian listed companies. The model portrays that there a positive trends relative to number of year or period. The companies investing more in current assets behaves to decreases their debt ratio in their capital composition and increases sales to enhance the growth of the company. The model not fit for forecast, since it’s MAD of 0.14151, MAPE of 7.28996 and MSD of 0.02604 are not smaller to convincing for accuracy.
4.4: The potency of working capital in advocacy of growth opportunity of Tanzanian listed companies

The potency of working capital in advocacy of growth opportunity of a company is determined in the amount of shilling invested in current assets required to generate a one shilling of sales. Table 4.1 evidences that one Tanzanian shilling of sales generated by 0.10015 Tanzanian shillings invested in cash assets. The companies’ ability to generate one shilling of sales range from 0.03332 to 0.2722 Tanzanian shillings invested in cash asset. The small amount of the currents assets the better the strength of the company. One shilling of sales generate by 0.1328 Tanzanian shilling invested in the inventory. The ability of companies to generate a one Tanzanian shilling is ranged from 0.0178 to 0.3105 Tanzanian shillings. The small amount of shilling requires generating one shilling of sales the better the company, that is, companies requires small amount of inventory so to reduce the inventory cost. This implies that the inventory turnover ratio will be higher. The amount of 0.555 Tanzanian shillings invested in current assets generate one shilling of sales.

4.6. Test of hypotheses

The ten set of the paired hypotheses were tested at 5% and 10% level of significant. Sales growth rate with positive coefficient of 0.2045, R-sq of 26.3 percent and p-value of 0.129 (Table 4.2), found to be statistically insignificant at 10 % level of significant. The p-value of 0.129 is greater than 0.100 level of significant; therefore, there is no strong statistical evidence to reject the null hypothesis. From this fact, the null hypothesis in the first set of the hypotheses is accepted. That is, there is no relationship between financial leverage and sales growths rate.

Net-income growth rate has negative coefficient of -0.0405, R-sq 5.0 percent and p-value 0.533 (Table 4.2), found to be statistically insignificant at 10% level of significant. The p-value of 0.533 is greater than the level of significant of 10%. That is, there is no statistical strong evidence to reject the null hypothesis. Therefore, the null hypothesis of the second set of paired hypotheses was accepted. That is, there is no significant relationship between financial leverage and net-income growth rate.

The inventory-sales ratio variable has negative coefficient of -0.9278, R-sq of 16.9% and p-value of 0.238(Table 4.2) found to statistically insignificant at 10% level of significant. The p-value of 0.238 is greater than level of significant, that is, there is no strong statistical evidence to reject the null hypothesis. Therefore, the null hypothesis in the third set of the paired hypotheses was accepted. That is, there is no significant relationship between inventory-sales ratio and financial leverage.

The dividend growth rate has negative coefficient of -0.0084, R-sq 6.3 percent and p-value 0.486 (Table 4.2), found to insignificant statistically at 10% level of significant. The p-value of 0.586 is greater than the level of significant. That is, there is no statistical evidence to reject the null hypothesis. From this fact, the null hypothesis of the fourth set of hypothesises is accepted, that is, there is no relationship between dividend growth rate and financial leverage.
The cash-sales ratio variable has negative coefficient of -0.5669, R-sq of 4.9 percent and p-value of 0.539 (Table 4.2) found to be statistically insignificant at 10% level of significant. The p-value of 0.539 is greater than the level of significant. That is, there is strong statistical evidence to reject null hypothesis, the null hypothesis in the fifth set of hypotheses is accepted. That is, there is no significant relationship between cash-sales ratio and financial leverage.

The debtor-sales variable has a positive coefficient of 1.319, R-sq of 23.4 percent and p-value of 0.157 (Table 4.2) found to be statistically insignificant at 10% level of significant. The p-value of 0.157 is greater than level of significant; therefore there is no strong evidence to reject the null hypothesis in the sixth set of hypotheses. The null hypothesis is accepted, that is, there is no significant relationship between financial leverage and debtor-sales ratio.

Creditor –sales ratio has a positive coefficient of 1.896, R-sq of 20.6 percent and p-value of 0.187 (Table 4.2) found to insignificant at 10 % level of significant. The p-value of 0.187 is greater than the significant level; therefore there is no strong statistical evidence to reject the null hypothesis in the seventh set of hypotheses. The null hypothesis is accepted, that is there is no significant relationship between financial leverage and creditor-sales ratio.

The structural health ratio has negative coefficient of -0.188, R-sq of 37.89 and p-value of 0.058 (Table 4.2) found to be statistically significant at 10% level of significant. The p-value of 0.058 is less than significant level of 0.100. Therefore, there is no statistical strong evidence to accept the null hypothesis at this level of significant. The null hypothesis is rejected at the eighth set of the hypotheses. That is, there is a significant relationship between financial leverage and structural health ratio.

The current asset-sales ratio has negative coefficient of -0.0882, R-sq of 6.3 percent and p-value of 0.483 (table 4.2) found to be insignificant at 10% level of significant. The p-value of 0.483 is greater than level of significant. Therefore, there is no strong evidence to reject the null hypothesis in the ninth set of hypotheses. The null hypothesis is accepted. That is, there is no significant relationship between financial leverage and current asset –sales ratio.

The liquidity (current) ratio has a negative coefficient of -0.0820, R-sq 14.6% and p-value of 0.276 (Table 4.2) found to be statistically insignificant at 10% level of significant. The p-value of 0.276 is greater than level of significant; therefore, there is no strong evidence to reject the null hypothesis in the tenth set of hypotheses. The null hypothesis is accepted, that there is no significant relationship between financial leverage and liquidity (current) ratio.

4.7 Findings

The study aimed to investigate the influence of capital structure on the working capital intensity and growth opportunity of a company. It is subjected to the three specific objectives. The first objective is to investigate how Tanzanian listed companies behave in their capital structure, working capital intensity and growth opportunity. The second is to examine how the capital structure influences working capital intensity and growth opportunity of Tanzanian listed companies and the third is to examine the potency of working capital (current assets) in advocacy of growth opportunity of Tanzanian listed companies. The study met their objective
The study found that the listed companies of Tanzania are unleveraged companies with averaged mean of debt ratio of 0.4370. The companies’ capital structure weighted on equity, about of 0.5630. Companies grow at the average of 33.3% and maintain a liquidity ratio of 1.706. Generally, companies listed at Dar es Salaam Stock Exchange (DSE) is not liquidity, they have a little ability to meet their debts obligations, thus is why, their capital structure weighted in equity. The rate of growing is of 33.3% is a sustainable growth; this indicates that unleveraged companies grow fast. The low debt ratio tends to favour the growth of a company. Therefore, it concluded that, the listed companies at DSE are unleveraged, growing fast and reluctant to invest more in their current asset, they are illiquidity. Since they are unleveraged companies this is not worse for them. This is fact, addresses the first objective of the study.

The influence of capital structure on the working capital intensity and growth opportunity of companies, the second objective, was found that there is no significant influence of the working capital on the level or intensity of the working capital and the growth opportunity of a company. Although the trend or behaviour analysis of the capital structure of the listed companies shows that as the years comes they prefer equity to debt.

The third objective was to measure the potency or ability of current assets to generate sales is found that listed companies at DSE have ability generate one shilling of sale by 0.555 Tanzanian shillings. It is very hard to appraise optimality of this performance, but the small amounts of money invested in current asset are required to generate a one shilling of sale is preferred.

4.8 Discussion on the results

The findings of this study lay a foundation that there is no significant relationship between capital structure, working capital and the growth of companies. The variables tested on the proxies of the capital structure, working capital and growth opportunity of a company are found that there is no statistical evidence, strong to confirm the relations. The findings confirm the studies of Anderson (2002) who found that the financial leverage has no influence of the growth opportunity of a company. The study confirms the finding of Sen and Oruc (2008) and Najjar and Petrov (2011) who found that there is no meaningful relations of company growth opportunity and capital structure.

Chen and Chen (2011), Ahmed and Hishami (2009) on their studies confirm this finding that growth opportunity of a company does not depends on the nature of the capital structure. On the other side they found that liquidity influence the financial leverage in a negative way. The findings do not confirms the findings of studies done by Ebadi, Thim and Choong (2011) which detected that the liquidity and negatively related to financial leverage and the growth opportunity of a company positive depends on the financial leverage. This finding confirms Bundala (2012), Bundala and Machogu (2012), Ozkan (2011), Myers (1984) who detected negative influence of the liquidity of financial leverage and positive relationship between financial leverage, at the insignificantly statistical confidence.
This finding does not confirm Ali, Akhtar and Sadaqat (2011) that found that financial leverage negatively related liquidity of a company. Mishra (2011), Malik (2012), Kumar, at al. (2012) found that financial leverage has a positive influence on the growth opportunity of accompany. These studies findings do not confirm the findings of this study. Sabir and Malik (2012) do not confirm this finding; they found liquidity has a positive influence of financial leverage.

5. Conclusion and recommendations

5.1 Conclusion

The study aimed to determine how the capital structure influences the working capital and the growth opportunity of the listed companies in Tanzania. The three objectives are established to accomplish the study. The first objective is to examine how Tanzanian listed companies behave in their capital structure, working capital intensity and growth opportunity. The second objective is to examine how the capital structure influences working capital intensity and growth opportunity of Tanzanian listed companies and the third objective is to examine the potency of working capital (current assets) in advocacy of growth opportunity of Tanzanian listed companies.

The study met their objectives. The finding on the first objective is that, the listed companies of Tanzania are unleveraged companies. They prefer equity to debt in their capital structure. They have averaged mean of debt ratio of about 0.4370. The companies grow at an average rate of 33.3 percent. This is a high growth rate; this is due to the fact that the company weighted in equity tends to have stable growth opportunity. The unleveraged companies prefer internal financing, particularly, retained earnings. This accelerates companies to grow at high rate. The liquidity of a company proxy for working capital is average to 1.706. This shows that the unleveraged companies tends to have low liquidity due to fact that they not highly subjected to interest covenants from creditors.

The second objective was met by the finding in the sense that it is evidenced that there is no meaningful or significant relationship between capital structure, working capital and growth of the company. The study concluded that the growth opportunity of a company does not depend on the capital structure but depends on the investing opportunity available in the company. The investment opportunity in a company is a key determinant for growth. The liquidity or working capital intensity of a company depends also on the availability of the short-term project opportunity in a company. The company with short-term project opportunity tends to intensive working capital. In other words, liquidity or working capital of a company depends on the nature or origin of the business industries belongs. The industry which a company belongs determines the need and intensity of the working capital.

The third objective was met by the study. The findings profile that the ability or potency of the current assets to generate sales of the listed companies in DSE is averaged 0.555 Tanzanian shillings per one shilling of sales generated. This means the current assets of Tanzania listed company have positive power or ability of generating sales. One shilling invested in current assets stimulates or generates 2 shilling of sales.
5.2 Recommendations

The findings provided an open air windows for corporate managers, stakeholders, practitioner academician and researcher. The findings concluded that capital structure, working capital and growth opportunity of a company has no significant relations. But the trend analysis of capital structure, working capital and growth opportunity detected that listed companies in Tanzania are unleveraged companies. These companies tend to grow fast. They invested less in current assets. It is recommended that companies aim for growth should adhere on the investment opportunity available in the company rather think about of optimality of its capital structure or working capital intensity, since it is proven to be having little influence of the growth. Companies should prefer internal financing to external funding to avoid burden of debts and restrictive covenants from their creditors. This should be done with a care to save the interest of their shareholders and other corporate stakeholders.

References


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