Determinants of Corporate Capital Structure among Private Manufacturing Firms in Kenya: A Survey of Food and Beverage Manufacturing Firms

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Abstract   *The purpose of this study was to investigate factors influencing corporate capital structure in private firms in Kenya. Although the capital structure issue has received substantial attention, it is noteworthy that most of the empirical work done focuses on data derived from developed economies that have many institutional similarities and their applicability in developing markets such as Kenya is not documented. Yet, the maintenance of an optimal capital structure is considered as one area where decision makers can influence the company's value and risk. Specifically, the objectives of the study were to establish whether growth opportunities, firm size, firm profitability, and asset tangibility influence corporate capital structure. The study adopted a descriptive survey research design. The study population comprised 121 Food and Beverage private manufacturing firms registered with the KAM that are located in Nairobi and surrounding area. A sample of 36 firms was selected for the survey using stratified random sampling technique from which 30 questionnaires were returned. Primary data was sourced through personally administered questionnaires to the CFOs. Data was analyzed using descriptive statistics and inferential statistics. Multiple regression analysis was used to determine the interplay between the independent variables and dependent variable. Based on the findings, the study concludes that growth opportunities positively influence capital structure; firm size negatively influences the capital structure, there is an insignificant negative relationship between firm profitability and the capital structure, and there is insignificant positive interaction between asset tangibility and the capital structure of private firms in Kenya.*

Key words   Capital structure, growth opportunities, firm size, firm profitability, asset tangibility

1. Introduction

The capital structure is a mix of a company's debt and equity that a firm uses to finance its overall operations and growth (Abor, 2005). According to Mahmud *et al*. (2009), debt comes in the form of bond issues or long-term notes payable, while equity is categorized as common stock, preferred stock or retained earnings. Corporate finance literature reveals that some researchers describe capital structure as long term debt divided by total assets (Omet, 2008). Borgia and Yan (2013) argue that capital structure is an important corporate decision because it could bring an optimal financing mix which could maximize the market value of the firm. Nonetheless, capital structure has stimulated passionate debate in the corporate finance management arena for nearly half-century.

The breakthrough seminal work of Modigliani and Miller (1958), and the ones that followed (Modigliani & Miller, 1961; Miller, 1977), laid down the conditions under which the firm would be fundamentally indifferent to the sources of its financing. As such, the elementary question of whether an exceptional mixture of debt and equity capital maximizes the firm value, and if so, what factors could influence a firm's optimal capital structure have been the subject of numerous debate in the extant capital structure literature. Mahmud *et al*. (2009) contend that interest expenses on debt are tax deductible, whereas dividends, a

distribution to shareholders, are not tax deductible. Therefore, the presence of such a tax shield for interest may trigger firms to use maximum amount of debt.

In sharp contrast, Myers (1977) observe that financial theory does not explain why tax savings generated by debt do not lead firms to borrow to the maximum possible limit or why firms finance with instruments of widely different maturity. Similarly, Brigham and Michael (2001) observe that there are wide variations in capital structure amongst industries and among individual firms within those industries over time. Along the same line of thought, Yong *et al*. (2008) assert that the proportion of debt in a firm's capital structure fluctuate extensively across seemingly comparable firms.

The extant literature reveals that capital structure decisions are determined by a multifarious set of factors (Getzmann, *et al*., 2010). Further, Bhabra *et al*. (2008) underscore the important factors influencing capital structure decision as percentage of tangible assets, size, profitability, and growth opportunities. On the other hand, Frank and Goyal (2009) propose that the consistent factors for explaining market leverage are median industry leverage, market-to-book assets ratio, tangibility of assets, profits, log of assets and expected inflation. Lim (2012) buttress the assertion that capital structure closely relates to firm-level characteristics.

De Jong *et al*. (2008) investigated the significance of firm specific and country specific factors in the capital structure choice of firms across 42 countries. The study concluded that firm specific determinants vary across countries despite previous studies suggesting that the determinants have an equal impact. In contrast, Feidakis and Rovolis (2007) found size and profitability to be positively and negatively associated to capital structure, respectively for large European construction firms from 1996-2004, notwithstanding important cross-country differences. Shah and Hijazi (2004) conducted a study on listed non-financial companies in Pakistan that showed firm size and leverage had a direct relationship indicating that big firms resort to greater use of debt. Additionally, growth opportunities were found to have an inverse relationship with the leverage, and profitability was strongly positively correlated to leverage.

Afza and Hussain (2011) study on capital structure for firms in Automobile, Engineering, and Cable and Electrical Goods Sectors in Pakistan revealed that firms with sound liquidity position and large depreciation allowances used retained earnings, followed by debt financing for growth while equity financing was considered as a last resort. The results supported the Static Tradeoff Theory and Pecking Order Theory. Thus, the significant determinants of optimal capital structure have been disagreed over decades of empirical studies (Harris & Raviv, 1991). Specifically, what are the influential factors in determining how firms select the types of security to be issued are considered to be questionable. Additionally, most firms adjust their capital structure when debt levels are above-target leverage and below-target leverage as well (Byoun, 2007).

Therefore when leverages differ from target capital structure, firms tend to move their capital structure towards the target capital structure, whereas the speeds of adjustment are considered to be questionable. Furthermore, capital structure decision-making is even more complicated when it is examined in an international context, particularly in developing countries where markets are characterized by controls and institutional constraints (Boateng, 2004). Truly, most of the literature seeking an association between the capital structure and the firm specific or industry characteristics has focused on the experience of developed economies (Borgia & Newman, 2012), where they have many institutional similarities. However, emerging markets, with many institutional differences, have rarely been the subject of research in this field (Rajagopal, 2010).

1.1 Capital Structure in Private Firms

One of the main insights of the existing literature is that companies trade-off the potential benefits of adjusting their capital structure. The vast majority of the available empirical evidence on this issue concerns stock exchange quoted companies, who appear to frequently adjust their leverage (Leary & Roberts, 2005). Private companies, however, tend to have a much more restricted access to capital markets. In other words, they face higher transaction costs, which lead them to adjust their capital structure less frequently (Brav, 2009). This lack of financing flexibility is often regarded as a major disadvantage of private companies as compared to public ones (Huyghebaert & Van Hulle, 2006).

However, studies have almost exclusively focused on public firms due to data availability (Borgia & Newman, 2012). Consequently, this leaves a gap in the literature focusing on the financing behavior of private firms. It is assumed that the general theories of capital structure are applicable across the private sector as

well. However, this may not be the case as public and private firms are inherently faced with different costs of financing. This may lead to different financing choices. Public firms have access to capital markets whereas this access is limited for private firms. As a result, private firms face relatively higher costs of both debt and equity (Brav, 2009). Fundamental questions thus arise as to whether the predictions offered by the theories of capital structure are also applicable to private firms. If not, then what drives the capital structure of private firms and how does that differ from its public counterpart. Are the stylized factors determining private firm leverage different from those of public firms?

1.2 Statement of the Problem

Companies strive to optimize their activities in order to increase value to shareholders (Thorsell & Cornelius 2009). The maintenance of an optimal capital structure is considered as one area where decision makers can influence the company's value and risk (Pandey, 2005). As such, to maintain optimum levels of debt and equity in the capital structure, decision makers must constantly be in control of capital structure determinants. However, even after decades of active theoretical and empirical research, what determines a company's capital structure remains an empirical question in corporate finance. Moreover, Rajagopal (2010) underscores the significance of capital structure in deriving the firm's weighted average cost of capital.

Although the capital structure issue has received substantial attention, it is noteworthy that most of the empirical work done focuses on data derived from developed economies that have many institutional similarities and their applicability in developing markets such as Kenya is not known (Oluwagbemiga, 2013). In contrast, little has been done in terms of developing market context such as Kenya as Magara (2012), decry the dearth of studies in Kenya that have examined the firm's choice of capital structure. Moreover, Afza and Hussain (2011) contend thatdue to data limitations, the study on private firms has largely been neglected. Instead, results derived from the study of public firms are generalized to the private firms. Besides, the majority of studies have focused on analysis of large firms listed on stock exchanges. Certainly, Afza and Hussain (2011) suggest that private firms have significantly higher leverage than public firms, indicative of difference in the financing behavior of public and private firms.

It is equally important nonetheless, to study the capital structure of private firms, as these firms form the vast majority of firms in the world. It is therefore imperative, to investigate whether the factors that impinge capital structure of publicly listed companies also affect capital structure of private firms. Furthermore, institutional variation in emerging markets such as Kenya may alter the motivations of privately owned firms to choose capital structure. The study therefore, sought to investigate the factors influencing capital structure in private manufacturing firms in Kenya with the view of filling these gaps.

2. Theoretical Framework

This section presents the fundamental financial theory that is commonly used to explain the costs and benefits of holding debt on a balance sheet.

2.1 The Modigliani-Miller Theorem

The theory of corporate finance in a modern sense starts with the Modigliani and Miller (1958) (henceforth, MM) capital structure irrelevance proposition. Before their work, there was no commonly recognized theory of capital structure. MM exemplified that corporate financial decisions are irrelevant in a perfect, frictionless world. Therefore, the valuation of a firm is independent from its financial structure under certain fundamental assumptions; where there are no corporate and personnel taxes, no transaction costs, symmetric information, complete contracting and complete markets. MM argued that under these assumptions, internal and external finances may be viewed as perfect substitutes.

The 1958 seminal work of the MM inspired serious research dedicated to disproving irrelevance as a matter of theory or as an empirical matter. In this regard, research has indicated that MM theory fails under a variety of circumstances. Bevan and Danbolt (2002) observe that firms will attempt to select levels of debt and equity in order to reach an optimal capital structure, under market imperfections such as restrictions to access to external financing and differentiations in the costs of alternative forms of external finance. Similarly, Groth and Anderson (1997) proposed that apart from deciding on a target capital structure, a firm must manage its own capital structure.

2.2 The Trade-Off Theory

This model is an off-shoot of the MM theory. Myers (1984) contends that a firm that follows the trade-off theory sets a target debt to firm value ratio and then gradually moves towards the target. Since interest expense is tax deductible, a larger interest expense will result in lower taxable profits and subsequently lower taxes. Nevertheless, with very high levels of debt, firms may be unable to meet their debt obligations hence increasing financial distress. Thus, increasing the amount of debt, firms can derive tax benefit through the interest tax shield. According to this theory, the target debt is determined by balancing the tax benefits of using debt against costs of financial distress that rise at an increasing rate with the use of leverage. As such, it envisages moderate amount of debt as optimal (Bradley et al., 1984). In contrast, Miller (1977) and Graham (2000) argue that the trade-off model suggests that many profitable firms should be more highly levered than they certainly are, as the tax savings of debt seem large while the costs of financial distress seem insignificant. However, most profitable firms in an industry tend to borrow the least, despite their probability of experiencing financial distress being very low.

2.3 The Pecking Order Theory

The financial hierarchy (or pecking order) model was first developed by Donaldson (1961) and then extended by Myers and Majluf (1984) who set the model in the context of rational expectations. In a study of capital structures among large corporations, Donaldson (1961) suggested that management favors internally generated funds over external funds. Donaldson findings gave a clue of a pecking order before the theory was developed by Myers (1984). The pecking order theory is a preference order, which states that firms choose to finance new investments through retained earnings, if these are sufficient and prefer to use debt financing over equity financing if additional external funding is needed. Therefore, there is no well-defined target mix of debt and equity finance but each firm's leverage mirrors its aggregate demand for external finance (Beattie et al., 2004).

According to Myers and Majluf (1984), outside investors rationally discount the firm's share price when managers issue equity instead of riskless debt. Hence, managers spurn equity whenever possible in order to evade this discount. Along the same line of thought, Allen (1991) posits that if managers resort to external financing, they will issue the safest security first: debt, followed by hybrids such as convertibles, and finally equity as the last resort. Moreover, firms retain profits and accumulate financial slack to avoid raising external finance in the future in the absence of investment opportunities. Nevertheless, Quan (2002) criticizes the theory for its failure to explain how taxes, bankruptcy costs, security issuance costs, agency problems, as well as other factors such as the firm's investment opportunity set have influences the capital choice.

2.4 Free Cash Flow Theory

The free cash flow theory (or the agency theory) was advanced by Jensen (1986). This theory deals with the relationship of the investors (who delegate authority) and the managers (agents) who have to perform the duties delegated to them. Jensen (1986) observes that agency costs originate from the separation of ownership and management which inherently leads to a conflict of interest between the managers and the shareholders. Further, Jensen argues that leverage can also act as a monitoring mechanism and thereby reduces the agency problem hence increasing firm value, by reducing the agency costs of free cash flow such as empire building. The higher leverage level commits management to pay out the excess free cash flows in interest payments and invest in profitable projects to service the debt. Lewis and Sappington (1995) hold the view that leverage assists as a control mechanism to discipline managers and limits the expropriation of private benefit. As a result, leverage may be essential even when internal funds are available

Jensen and Meckling (1976) argue that there is potential conflict of interest between the bondholders and the shareholders since bondholders have a precedence on claims over equity holders. Therefore, equity holders can either engage in riskier investments or underinvest to minimize the flow of benefits to debt holders. Indeed, the underinvestment problem is predominantly stronger for growth companies as it will cause them to pass on valuable investment opportunities (Myers, 1977). Accordingly, growth companies are at an advantage under equity financing.

3. Empirical Review

3.1 Corporate Capital Structure

Capital structure indicates the percentage of debt and equity in the total capital structure of the firm (Alfred, 2007). According to Pandey (2005) the various sources used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity capital. As such, capital structure represents the combination of long-term debt and equity financing in a firm. However, it is vital to understand different sources of funds for firms and what informs the decision on their choice of capital structure. Despite the prominence of both the trade-off model and the pecking-order model in explaining the selection of capital structure in western countries, Fan *et al.*, (2010) maintain that they do not provide convincing explanations for the capital choices of firms in developing countries because of distinctive institutional environment. In the same vein, Lim (2012) claim that trade-off theory has limited explanatory power for Chinese listed companies and Chinese publicly listed firms seem to follow a different pecking order from developed countries. Indeed, Chen (2004) proposes a new pecking order; retained earnings, then equity and lastly debt.

Brigham and Michael (2001) in a study of U.S. industries concluded that extensive differences in capital structure exist among industries and among individual firms within those industries. Moreover, capital structure disparities also occur within a given firm over also varies widely across apparently similar firms. De Jong *et al.* (2008) assert that firm specific determinants differ across countries whereas earlier studies suggested that the determinants have an equal impact. According to Bhabra *et al.* (2008) the important factors influencing capital structure decision are firm size, proportion of tangible assets, profitability, and growth opportunities. On the other hand, Frank and Goyal (2009) identify the determinants of leverage as market-to-book assets ratio, tangibility of assets, profits, log of assets and expected inflation. Thus, capital structure decisions are determined by a composite set of factors (Getzmann *et al.*, 2010). Nonetheless, there is no consensus from the extant literature on the important determinants of optimal capital structure.

3.2 Growth Opportunities

Titman and Wessels (1988) avow that growth opportunities may be viewed as assets that add value to a firm, but cannot be used as collateral and are not subject to taxable income. This is indicative of a negative association between debt and growth opportunities. This argument is in line with the pecking order theory which suggests that a firm's growth is negatively related to its capital structure (Nguyen & Ramachandran, 2006). However, firms with growth opportunities may be in need of capital beyond internal reserves to finance their investments. As a result, growth firms may be more likely to tap the debt market rather than equity markets as conjectured by Myers and Majluf's (1984). In contrast, Chen (2004) found a positive relationship between leverage and growth. Hence, the relationship between growth and leverage is ambiguous.

Myers (1977) observes that growth firms may avoid taking debt as it may lead them to pass on profitable investment opportunities due to debt servicing. Consequently, shareholders of levered firms have an incentive to invest sub-optimally to divert wealth from bondholders (Nguyen & Ramachandran, 2006). This agency problem is more distinct for growth firms with significantly large investment opportunities (Jensen & Meckling, 1976). Thus, firms in growth industries would opt to use equity financing over debt financing to avoid the sub-optimal investment. Moreover, Myers (1984) proposes that this agency problem can be assuaged through the issue of short term debt rather than long term debt. Additionally, Green (1984) recommends the use of convertible debt. Therefore, firms with large investment opportunities may not issue debt in the first place, and hence leverage is expected to be negatively related to growth opportunities.

On the other hand, Fama and French (2002) are of the view that high leverage prompts high costs of financial distress. As a result, the market discounts the shares of firms in financial distress at a higher rate hence leading to the negative relationship between leverage and growth opportunities. In the extant literature growth opportunities are measured differently, depending to a great extent on data availability. Typically, the market-to-book (MBK) ratio is used as a measure of growth opportunities (Chen & Zhao, 2006). However, it is not possible to obtain a measure of the market-to-book ratio for private firms. As such, yearly sales growth rate is used as a proxy for measuring growth opportunities (Garcia-Tereul *et al.*, 2007).

Null hypothesis, (H₁o): *Growth opportunities have no significant influence on corporate capital structure among private manufacturing firms in Kenya.*

3.3 Firm Size

Gill *et al.,* (2009) posit that firm size is considered a vital element that can influence the financial architecture of the firm since it is linked to the leverage ratios of the firm. Similarly, Nguyen and Ramachandran (2006) observe that many studies suggest that there is a positive interplay between firm size and leverage. Trade-off theory predicts that larger firms have a higher debt capability and are able to be more highly levered. Additionally, large firms tend to be more diversified and thereby less prone to financial distress, have more steady cash flows and may be able to exploit the economies of scale in issuing securities (Gaud *et al.* 2005). Therefore, Wiwattanakantang (1999) argue that larger firms have an advantage over smaller firms in accessing credit markets and can borrow under better conditions. Along the same line of thought, Padron *et al*. (2005) hold that smaller firms are also likely to face higher costs for obtaining external funds because of information asymmetries. On the other hand, Smith (1977) noted that small sized firms bear high costs of issuing new equity and long term debt, and hence they may prefer to rely on short term debt and may be more levered than larger sized firms.

The extant literature overwhelmingly supports the positive relationship between firm size and leverage premise (Padron *et al*., 2005; Gaud et al., 2005). Thus, firm size is a pointer of borrowing capacity for firms, with larger firms having higher borrowing capacity and lower cost of borrowing with better access to capital markets. Nonetheless, other researchers present evidence of negative relationship between leverage and firm size (Ooi, 1999). Consistent with this assertion, Marsh (1982) observes that small firms tend to rely greatly on bank credit for their financing needs owing to their restricted access to the equity capital market. As a result, they become more levered than larger firms. Moreover, some of the researchers observe no systematic relationship between firm size and total leverage (Ozkan, 2001). Consequently, Rajan and Zingales (1995) conclude that the interplay between firm size and leverage is ambiguous. Indicators of firm size used in literature include; logarithm of total assets (Padron et al., 2005) and logarithm of net sales (Rajan & Zingales, 1995; Gaud *et al*., 2005).

Null hypothesis, (H₂o): *Firm size has no significant influence on corporate capital structure among private manufacturing firms in Kenya.*

3.4 Firm Profitability

According to (Nguyen & Ramachandran, 2006) there are conflicting theoretical predictions on the influence of profitability on the leverage of the firms. The trade-off theory predicts that profitable firms would more likely be able to benefit from greater tax advantages of debt which might induce them to be more levered with low risk of financial distress. Gaud et al. (2005) buttress this assertion by observing that if past profitability is a good proxy for future profitability, profitable firms could borrow more, as the likelihood of paying back the debt is greater. Myers (1984), and Myers and Majluf (1984) postulate a negative relationship between profitability and debt using the pecking order theory, on the basis that profitable firms do not need to rely heavily on outside financing. Instead, profitable firms will lower leverage as they will predominantly meet their financing needs through retained earnings.

On the other hand, Jensen (1986) argues that cash flow rich firms may suffer from the agency problems of free cash flows. Thus, managers may expropriate private benefits creating a conflict of interest between the managers and the shareholders. As a result, leverage may thereby be increased to discipline the managers and limit their consumption or perquisites, hence predicting a negative relationship between leverage and profitability. Therefore, (Gaud *et al*., 2005) notes that theoretical predictions yield no consistent conclusions for the correlation between profitability and leverage.

The empirical results of a study conducted by Afza and Hussain (2011) on the determinants of capital structure for firms in Pakistan revealed that firms with high profitability used retained earnings, followed by debt financing and equity financing was considered as a last resort. Thus, the evidence supports pecking order theory. According to the extant literature, there is strong empirical evidence on the negative association between profitability and leverage (Gaud *et al.,* 2005). On the other hand, some studies present evidence for

a positive correlation between financial leverage and the firm's profitability (Feidakis & Rovolis 2007). The positive association between profitability and leverage may be due to lenders being more willing to lend to profitable firms. Hence, more profitable firms would have greater access to debt markets and would be more likely to benefit from greater tax shield of debt.

In a study of UK property companies, Ooi (1999) present empirical evidence showing that corporate profitability is not a vital determinant of capital structure. Similarly, De Jong *et al.* (2008) found non-significant inverse relationships between leverage and profitability among firms across 42 countries. In literature, various proxies such as ratios of operating income over sales and operating income over total assets (Titman and Wessels, 1988), the return on assets (Wiwattanakantang, 1999), the return on total assets, (Gaud et al., 2005) were used as indicators of profitability to measure profitability.

Null hypothesis, (H₃o): *Firm Profitability has no significant influence on corporate capital structure among private manufacturing firms in Kenya.*

3.5 Asset Tangibility

The type of assets owned by a firm may motivate the financing behavior of firms. The tangible assets of a firm can be considered as the representatives of the real guarantees to its creditors. Padron *et al*. (2005) underscore the significance of tangible assets in influencing a firm's level of debt. Similarly, Gaud *et al*. (2005) affirm that tangible assets are probable to have an effect on the borrowing decisions of a firm since they are less subject to informational asymmetries and they have a greater value than intangible assets in case of insolvency. Moreover, the firm's use of tangible assets as security reduces the risk of the moral because this is a positive indicator to the creditors who can request the liquidation of these assets in the case of credit default. Consistent with this line of argument, Rajan and Zingales (1995) posit that the greater the proportion of tangible assets on the balance sheet, the more willing lenders should be to advance loans, and leverage should be higher.

According to Myers and Majluf (1984) a positive relation subsists between the collateral value of tangible assets and leverage. Biger *et al.* (2007) pronounce that firms with high level of assets that can be used as collateral tend to use more debt rather than issue new equity because costs associated with issuing equity rise due to the asymmetry of information possessed by insiders and outsider. Indeed, many studies indicate a positive relationship between the asset tangibility and leverage which is consistent with this prediction (De Jong *et al.*, 2008).

In contrast, Psillaki and Daskalakis (2009) present empirical evidence of negative relationship between leverage and fixed assets in small and medium firms. Jõeveer (2006) suggest leverage to be negatively correlated with asset tangibility in line with the agency theory. As such, higher leverage would prompt higher financial distress costs and thus limit the expropriation of private benefits by managers. As a result, firms with low tangible asset may be more levered in an attempt to discipline managers. Indicators of asset tangibility used in literature include the ratio of book values of tangible assets plus inventories to total assets as used by Chen (2004) and Gaud et al. (2005).

Null hypothesis, (H₄o): *Asset tangibility has no significant influence on corporate capital structure among private manufacturing firms in Kenya.*

3.6 Research Gaps

The study of the determinants of firms' capital structure has received growing attention by researchers. The foregoing review of empirical literature reveals that the studies were mainly conducted in developed countries that have many institutional similarities and their applicability in developing markets such as Kenya is not documented. The debate on the factors influencing capital structure within the literature has not yet reached consensus. The theory and empirical evidence tend to be inconclusive on the link between most of the variables and capital structure. Indeed, broadening understanding of determinants of capital structure seems to be a natural step towards a better and more realistic comprehension of observed corporate finance practices. Moreover, the current empirical studies rely on secondary data to provide evidence on capital structure. Thus, this survey-based study aims to bridge these gaps in the literature by examining chief

financial officers (CFOs) of private manufacturing firms to comprehensively investigate the factors influencing capital structure in private firms in Kenya.

4. Methodology of research

The study used a quantitative descriptive survey design. The target population for this study was the Food and Beverage private manufacturing firms registered with the Kenya Association of Manufacturers (KAM) as published in the 2013 members' directory. According to KAM (2013) there were 162 registered Food and Beverage manufacturing firms at the close of 2013 in Kenya. Over 80 per cent of these companies are based in Nairobi, while the rest are located in other major towns and regions. The study sampling frame comprised 121 private food and beverage manufacturing firms in the Food and Beverages sector registered with the KAM that are located in Nairobi County and surrounding region. A sample of 36 firms was deemed sufficient because it forms at least 30 per cent of the targeted population of 121 firms. According to Mugenda and Mugenda (2003), a sample size of 10% is considered adequate for descriptive survey study, which means a sample of 36 firms accounting for 30% of the population will be much beyond the 10% required and hence was adequate. Moreover, Roscoe (1975; as quoted by Sekaran and Bougie, 2010), proposes the following rule of thumb for determining sample sizes; sample sizes larger than 30 and less than 500 are appropriate for most research. The main instrument of collecting primary data in this study was questionnaires containing both closed and open ended questions. Quantitative data was analyzed using SPSS program. The multiple regression analysis was used to determine whether the group of variables together predicted the corporate capital structure. Specifically, the following linear regression model was applied.

$$CS = \beta_o + \beta_1 GO + \beta_2 FS + \beta_3 FP + \beta_4 AT + \varepsilon \qquad (1)$$

Where:

CH	= Capital Structure
GO	= Growth Opportunities
FS	= Firm Size
FP	= Firm Profitability
AS	= Asset Tangibility
ε	= Error term
β_o	= Intercept
β_1- β_5	= Slope coefficients representing the influence of the associated independent variable on the dependent variable

5. Results and Discussions

The CFOs filled in and returned 30 questionnaires making a response rate of 83.3%. This response rate was fair and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is good and a response rate of 70% and over is excellent. The commendable response rate was only possible after the researcher made personal calls to the respondents informing them of his intent and personally administering the questionnaires.

5.1 Growth Opportunities

The study sought to find the growth opportunities of the firms measured by sales growth and established that the mean sales growth rate for the year 2013 was 4.72% with a standard deviation of 0.69. On whether firms with abundant growth opportunities are more likely to tap the debt market rather than equity markets, the study established that CFOs agree that firms with abundant growth opportunities are more likely to tap the debt market rather than equity markets. This had a t- value of 28.86 which is significant at 5% significance level (P-value of 0.000 which is less than 0.05). This shows that growth firms may require capital beyond its internal reserves to finance their investments. The observation buttresses the assertion by Myers and Majluf's (1984) that growth firms may be more likely to tap the debt market rather than equity markets.

They also sought to assess the respondents' view on growth firms may avoid taking debt as it may lead them to pass on profitable investment opportunities due to debt servicing. From the findings, 36.7 % of respondents strongly disagreed with the statement, 30.0% disagreed, 20% were neutral, 10% agreed and 3.3% strongly agreed with a mean of 2.13 and a standard deviation of 1.136. This had a t- value of 10.28 which is significant at 5% significance level (P-value of 0.000 which is less than 0.05). This shows that growth firms are likely to take debt to finance growth opportunities since the respondents disagreed with the given statement. This contradicts Myers (1977) observation that growth firms may avoid taking debt as it may lead them to pass on profitable investment opportunities through debt repayment. This finding may however, lead the shareholders of the levered firms to invest sub-optimally to divert wealth from bondholders as postulated by Nguyen and Ramachandran, (2006).

5.2 Firm Size

The firm size measured by the logarithm of the total assets was established to be 4.82 with a standard deviation of 0.46 for the year 2013. On respondents' view on whether larger firms with stronger credit ratings have a higher debt capability and are highly levered, the respondents were in agreement that larger firms with stronger credit ratings have a higher debt capability and are highly levered (t-statistic was 20.42 which is significant at 5% significance level)in line with trade-off theory. This finding concurs with Nguyen and Ramachandran (2006) that there is a positive interplay between firm size and leverage. Further, the study found that larger firms have an advantage over smaller firms in accessing credit markets and can borrow under better conditions with a mean of 3.50 and standard deviation of 1.17. The response had a t- statistic of 16.43 which is significant at 5% significance level (P-value of 0.001 which is less than 0.05). This is in agreement with Wiwattanakantang (1999) contention that larger firms have an advantage over smaller firms in accessing credit markets and can borrow under better conditions. Additionally, it supports Padron *et al*. (2005) argument that smaller firms are likely to face higher costs for obtaining external funds because of information asymmetries.

5.3 Firm Profitability

The study sought to find the firms' profitability represented by return on assets measured by the operating income over total assets. It was established that the return on assets of the firms for the year 2013 was 0.206 with a standard deviation of 0.19. To the question on profitable firms benefiting from greater tax advantages of debt which induce them to borrow more, the data findings indicated that 40% were neutral, 26.7% disagreed, 23.3% strongly disagreed, 10% agreed, and none strongly agreed with a mean of 2.43 and a standard deviation of 1.07. The response had a t- statistic of 12.43 which is significant at 5% significance level (P-value of 0.005 which is less than 0.05). Thus, the results indicate that despite profitable firms benefiting from greater tax advantages, tax shield does not induce them to borrow more. This disagrees with the trade-off theory which predicts that profitable firms would more likely be able to benefit from greater tax shield of debt which might prompt them to be more levered with low risk of financial distress.

The study further established that majority (66.7%) of the respondents agreed that profitable firms predominantly meets their financing needs through retained earnings, 20% were neutral, 6.7% apiece strongly agreed and strongly disagreed while none disagreed with a mean of 3.67 and standard deviation of 0.884. The response had a t- statistic of 22.71 which is significant at 5% significance level (P-value of 0.000 which is less than 0.05). The results show that the private manufacturing firms meet their financial needs through retained earnings. Thus, the empirical evidence supports pecking order theory. This is in line with the empirical results of a study conducted by Afza and Hussain (2011) on the determinants of capital structure for firms in Pakistan which revealed that firms with high profitability used retained earnings, followed by debt financing and equity financing was considered as a last resort.

On whether the financial institutions are more willing to lend to profitable firms, 43.3% of the respondents agreed, 26.7% were neutral, 23.3% strongly agreed and 3.3 % apiece disagreed and strongly disagreed with a mean of 3.80 and standard deviation of 0.961.The response had a t- statistic of 21.65 which is significant at 5% significance level (P-value of 0.005 which is less than 0.05). The results show that the profitable private manufacturing firms can easily borrow funds from financial institutions. This confirms

Feidakis and Rovolis (2007) assertion that a positive correlation between financial leverage and the firm's profitability may be due to lenders being more willing to lend to profitable firms.

5.4 Asset Tangibility

The study established that the firms' asset tangibility measured by the ratio of book values of tangible assets plus inventories to total assets for the year 2013 was 0.86 with a standard deviation of 0.46. Also, the results show that an overwhelming majority (60%) agreed that use of tangible assets as security motivate the borrowing behavior of firms, 30% were neutral, 4% strongly disagreed, 3% each agreed and 3% strongly disagreed. The mean was 3.53and standard deviation of 0.899 as shown in figure 4.10. The response had a t-statistic of 21.51 which is significant at 5% significance level (P-value of 0.005 which is less than 0.05). The results show that the respondents were in agreement that firms' use of tangible assets as security stimulates them to borrow. This is consistent with Gaud *et al*. (2005) proposition that tangible assets are likely to have an effect on the borrowing decisions of a firm since they are less subject to informational asymmetries and they have a greater value than intangible assets in case of insolvency.

An overwhelming majority (60%) agreed that lenders are more willing to advance loans to firms with greater proportion of tangible assets on their balance sheet, 16.7% were neutral, 10% apiece strongly agreed and disagreed, and a paltry 3.3% strongly disagreed. The mean was 3.63 and standard deviation of 0.928. The response had a t- statistic of 21.45 which is significant at 5% significance level (P-value of 0.000 which is less than 0.05). Thus, the respondents were in agreement that lenders consider the proportion of tangible assets in advancing credit to private firms. This observation buttresses the argument by Rajan and Zingales (1995) that the greater the proportion of tangible assets on the balance sheet, the more willing lenders should be to advance loans, and leverage should be higher.

5.5 Corporate Capital Structure

The study established that the firms' mean corporate capital structure measured by the ratio of total debt to total equity for the year 2013 was 2.04 with a standard deviation of 0.315. The maximum financial leverage was 2.60 and the minimum was 1.50. Thus, the range of financial leverage for the firms was 1.10. On whether firms have optimal or target debt-equity level, an overwhelming majority (98%) of the respondents felt that private firms do not maintain an optimum debt-equity level while a paltry 2% answered in the affirmative. Thus, the results indicate that the tradeoff theory could not be applied to the private firms under the study. This is in congruence with Lim (2012) claim that trade-off theory has limited explanatory power for Chinese listed companies.

5.6 Regression Analysis and Hypothesis Testing

The multiple regression analysis models the linear relationship between the dependent variable which is corporate capital structure (leverage) and independent variables which are; growth opportunities, firm size, firm profitability and asset tangibility. According to the results of the regression analysis, the independent variables explain 42.79% of the capital structure (R^2). The F-statistic (ANOVA**)** for the model was 4.68 which was significant at 5% level of significance (P-value was 0.006 which was less than 0.05). The regression analysis coefficients are as shown in table 1 and table 2.

Table 1. Regression Model ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.898	4	2.725	4.675	.006
	Residual	14.568	25	.583		
	Total	25.467	29			

Table 2. Regression Model Coefficients

	Model	Unstandardized Coefficients	P-value (Significance)
1	(Constant)	4.717	0.018
	Growth Opportunities	0.324	0.002
	Firm Size	-1.042	0.041
	Firm Profitability	-0.563	0.568
	Asset Tangibility	1.712	0.116

Hypothesis 1

The results of regression analysis show that the regression coefficient representing the influence of the growth opportunities on capital structure was 0.324. This indicates a significant positive relationship at 5% significance level (P-value was 0.002 which is less than 0.05).Based on the findings, the study concludes that growth opportunities positively influence capital structure of private manufacturing firms. This is in line with Chen (2004) empirical evidence indicating a positive relationship between leverage and growth. The evidence supports the pecking order theory of capital structure.

Hypothesis 2

The results indicate that firm size negatively influence the capital structure of private firms in Kenya. The Beta coefficient is -1.042 which is significant at 5% significance level (P-value was 0.041 which is less than 0.05). On the firm size, the study concludes that firm size negatively influences the capital structure of private firms in Kenya. This is in agreement with Ooi (1999) evidence of negative relationship between leverage and firm size. Nonetheless, the negative interplay contradicts trade-off theory which predicts a positive relationship between firm size and capital structure and supports pecking order theory.

Hypothesis 3

According to the study findings, firm profitability has negative insignificant influence on the capital structure of private firms in Kenya. The Beta coefficient is -0.563 which is not statistically significant at 95% confidence interval (P-value was 0.568 which is greater than 0.05).In regard to firm profitability, the study concludes that there is an insignificant negative relationship between firm profitability and the capital structure of private firms in Kenya. This supports pecking order theory albeit the insignificant relationship.

Hypothesis 4

Regression analysis results for asset tangibility exhibited a positive insignificant interplay with the capital structure of private firms in Kenya. The slope coefficient is 1.712 which is statistically not significant at 95% confidence interval (P-value was 0.116 which is greater than 0.05).On asset tangibility the study established that asset tangibility positively influences the capital structure of private firms in Kenya. However, the influence is insignificant at 95% confidence interval. The positive prediction is consistent with the tradeoff theory and De Jong *et al.* (2008) argument for a positive relationship between the asset tangibility and leverage.

7. Recommendations

The study recommends that further research should be done on a larger sample of all manufacturing companies since the current study only focused on the factors influencing capital structure of food and beverage private manufacturing firms. Additionally, future research should focus on other factors influencing capital structure apart from firm specific factors such as economic factors and management demographics. This would augment this study for it will bring to light what other factors influence the capital structure of private manufacturing firms in Kenya apart from the firm specific factors.

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