



EFFECT OF LIQUIDITY ON GROWTH OF MANUFACTURING FIRMS IN KENYA

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ABSTRACT

This study investigated the effect of liquidity on growth of manufacturing firms in Kenya. The study sampled 102 firms from a target population of 708 firms registered in Kenya Association of Manufactures 2017 directory. This study majored on the trade-off theory of capital structure. To systematically solve the research hypothesis, the study's research methodology adopted both descriptive and quantitative research design approach. The target population consisted of manufacturing firms who were registered members of KAM and were part of the 708 members with at least five years in existence (i.e., are in existence from 2011 to 2016). The study used stratified random sampling due to varied features of the firms' population. The primary data in the study was used to produce the descriptive statistics that was used for trend analysis while the secondary data was used for inferential analysis (correlation and regression) to conducted diagnostic tests of the study hypotheses. The study administered a total of 102 questionnaires out of which 80 questionnaires were dully filled and returned. The null hypothesis on firm's liquidity having no significant effect on firm's growth was rejected. The results of the study revealed that there was a statistically significant and positive influence by firm's liquidity on the firm's growth of manufacturing firms in Kenya. The trade-off theory predicts a positive linkage between liquidity and leverage while the pecking order theory predicts a negative relationship between liquidity and leverage (Sheikh & Wang, 2011). The results revealed that liquidity as a current ratio, is positively significantly associated with firm growth. The areas identified for further research include considering other capital structure determinants effect on growth besides liquidity, that this study considered. Contract manufacturing and the impact of leasing of fixed assets on Kenya Manufacturing Industry were also other areas identified for future research.

Key Words: Liquidity, Manufacturing Industry

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INTRODUCTION

The growth of firms is integral to their actual survival because it has been suggested that firms with low or negative growth rates are more likely to fail (Kirchhoff, 2007). The manufacturing sector in the emerging economies like in India and China concentrate on mass manufacturing and competing on price due to both low wages and economies of scale, while in the advanced economies manufacturing sector is more productive technically but shrinking in size. The established firms prefer to compete on technology and innovation as the main drivers of growth, leading to a prevalence of lean manufacturing techniques with objective of controlling costs while improving quality (Thornton, 2010).

Kenya is an import-based economy while its export which is hinged on agriculture is heavily influenced by weather conditions (Obulutsa, 2017). The manufacturing sector in Kenya thus is largely agro-processing dependent on weather patterns (Knbs, 2013). When the country is experiencing drought (as it was in 2016), the hydroelectricity production declines leading to increased higher electricity prices as more electricity come from diesel-powered generators. These in turn increases cost of production (Obulutsa, 2017). Covid-19 has affected all sectors of the economy from disrupting imports of intermediate and capital goods, exerting pressure on agricultural exports, reducing tourism earnings and remittances. The pandemic has also adversely impacted transport, retail trade, construction, and manufacturing sectors (World Bank, 2020).

Since the mid 1970s, low levels of investment, technical inefficiency of production and limited technological progress have hampered development in the Kenyan manufacturing sector. In part, this can be explained by an unsuccessful import substitution strategy pursued since independence (Lundvall & Battese, 2000). From the time Kenya got its independence, several initiatives towards the development and growth of manufacturing sector have been implemented. This

includes creation of export processing zones program in 1990 and special economic zones in Mombasa, Kisumu and Lamu which provided investors with tax incentives and the accelerated processing of work permits, import and export of cargo (KAM, 2012). These initiatives have not been dynamic enough to make manufacturing sector be the engine of economic growth especially when compared to newly industrialized emerging economies due to various challenges like low value addition especially from agriculture and natural resources. Besides, the rate of global technological changes makes it necessary for Kenya to develop an industrialization policy framework that can respond to these rapid changes. Agriculture, manufacturing trade, tourism, financial services, transport, and communication account for over 80% of the private sector's contribution to total GDP (ADBG, 2013).

Firm's growth is considered an important measure of firm's success besides adding value. Firm's grow can be in terms of sales, profits, market share among other objectives. On a macro level, growing firms boost the world economy by increasing the work force (Loi & Khan, 2012). This current study focused mainly on firm specific capital structure determinants which have also been identified as determinants of firm's growth. These factors according to Ali *et. al.* (2018) are enough to determine 72 percent of firms' capital structure. They are firms' profitability, size, holding of tangible assets, volatility in earnings and liquidity.

Conventional studies depict capital structure to be dependent on factors such as firm's size, profitability, liquidity, risk and growth. Koksai and Orman (2015) considered tangibility (liquidity), profitability, dimension (size), firm risk and growth opportunity in their analyses as firm main specific determinants of leverage. Loi and Khan (2012) identified profitability, leverage, innovation, liquidity, and solvency as the main determinants which have impact on firm's growth while controlling age, size, legal form and location of the firm. Vergas, Cerqueira and Brandão (2015) identified four main determinants of capitals structure as tangibility, profitability, dimension and

growth opportunity which in our current study it is a dependent variable hence substituted with firm's risk. In study of capital structure, Rajan and Zingales (1995) identified size, profitability, growth and tangibility as firm-specific independent variables.

Statement of the Problem

Firm growth is closely related to firm survival. Specifically, firm growth is positively correlated with the likelihood of survival. Hence firms that have continuous growth tend to have a higher probability of surviving in the market (Geroski & Mata, 2001). This study sought to contribute to answering the dilemma of why firms are closing by researching the effect capital structure determinants have on manufacturing firm's growth. The rate at which manufacturers firms are shutting down operations in Kenya is on rise. Over 2.2 million micro small and medium enterprises shut down between 2009 and 2013 (Knbs, 2013). Other big manufacturing firms that have closed part or whole operations include Colgate Palmolive which in 2006 stopped manufacturing in Kenya completely. In 2014, Tata Chemicals Magadi closed its main factory rendering two hundred permanent workers jobless, Eveready Ltd closed its dry cell-making plant and laid off one hundred employees while chocolate maker Cadbury shut down its manufacturing plant in Nairobi, shedding about three hundred jobs (K.A.M, 2016). Other manufacturers that had closed production lines in Kenya included Reckitt Benckiser known for its home and personal care products, Procter and Gamble, Johnson and Johnson, Bridgestone, Unilever, Softa Bottling, a 20-year-old beverage firm closed in 2016, Sameer Africa known for Yana tires with over one hundred and twenty-five employees being laid off, closing the Nairobi factory in 2016 and outsource production to Asia. All the firms cited high cost of doing business and competition from cheaper imports (K.A.M 2016).

This study determined the effect of liquidity on growth of manufacturing firms in Kenya. The contribution of the manufacturing sector to Kenya's GDP has continued to stagnate at about 10 percent, with contribution to wage employment on a

declining trend (KNBS, 2013). Little research has been done in reasserting firm's choice of capital structure in developing countries such as Kenya (Magara, 2012). Most of the previous work found in literature refers to determinants of firm growth in developed countries (Panda, 2015). Owolabi, Inyang and Uduakobong (2012) have of the view that capital structure issue has remained neglected in the developing countries since little importance has been placed to the role of firms in economic development. They also note the historical constraint experienced by third world countries on choice regarding source of funds due to access to equity being regulated or limited because of the underdeveloped stock markets contributed to neglected of capital structure issues.

The study aimed at covering the effect of liquidity on growth of manufacturing firms in Kenya. Much effort has been dedicated to studying the general determinants of growth of firms with theoretical frameworks of firm formation and growth being formulated, though few have been tested expansively (Davidsson, *et.al.*, 2002). (Muia, 2011) identified profitability, industry concentration, sales growth, stock market index and Gross Domestic Product growth as the major factors influencing growth of firms in Kenya. (Namusonge, 2011) identified strategies used by business during the growth process and identified barriers and incidents which facilitate or hinder the growth of small and micro enterprises during the growth process.

Objective of the Study

The objective of this study was to investigate the effect of liquidity on growth of manufacturing firms in Kenya. The study was guided by the below hypothesis;

- H_0 : Firm's liquidity has no significant effect on growth of manufacturing firms in Kenya.

LITERATURE REVIEW

Theoretical Framework

Trade Off Theory of Capital Structure

The trade-off theory is an off shoot of the Modigliani and Miller theory (1963) which remarks that firms can maximize their value by using as much debt capital as possible. A firm thus must balance between debt and equity by considering the tax saving benefits of debt since interest expenses is tax deductible and it is expected to result in lower taxable profits and subsequently lower taxes (Titman & Wessels, 1988). Optimal firms' debt is viewed to be that level close to the industry average bearing in mind that excessive debt may increase bankruptcy costs due to financial distress and agency costs (Brealey *et. al.*, 2012). Trade-off theory is generally interpreted as predicting a positive relation between firm profitability and leverage because high profitability promotes debt utilisation in attempt to benefit from tax shields on interest payments (Titman & Wessels, 1988). Bankruptcy risk is perceived to be low in firms with high profitability which results in them increasing leverage thus a positive

profitability and leverage relationship (Fama & French, 2002). Growth opportunities cannot be collateralized as they are intangible assets, firms tend to borrow less while holding more future growth opportunities, suggesting a negative relationship between leverage and growth opportunities. Trade off theory also suggests that firms with higher liquidity ratios should borrow more due to their ability to meet contractual obligations on time, indicating positive linkage between liquidity and leverage (Rajan & Zingales, 1995).

With trade off theory, it is expected firms taking more debt to be those with constant profitability and have tangible assets which can be offered as collateral (Brealey *et. al.*, 2012). In essence these firms are large and have a lower probability towards default since they are more diversified, less risk towards bankruptcy and have lower agency cost (Rajan & Zingales, 1995). While it is anticipated risky firms having more intangible assets will relying more on equity (Brealey *et. al.*, 2012). Trade-off theory is used in the selection of size, liquidity and growth opportunities as variables.

Conceptual Framework

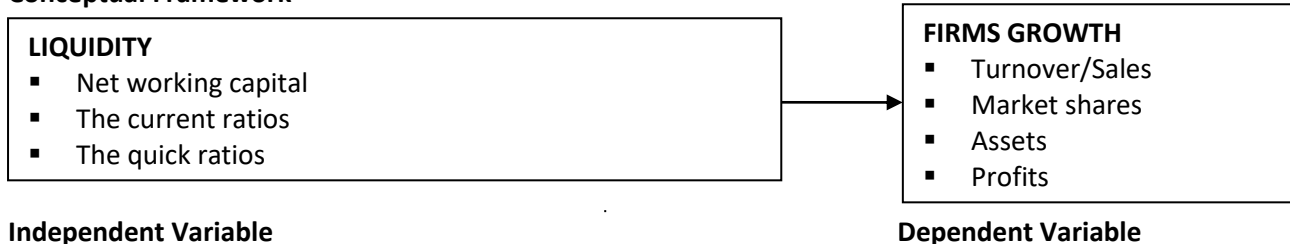


Figure 1: Conceptual Framework: Researcher's Formulation (2020).

Liquidity

Liquidity is a firm's ability to fulfil its cash and collateral obligations at a cost that is reasonable (Santucci, 2015). Mateev and Anastasov (2010) measured the level of short-term liquidity by the current ratio, calculated by dividing the current assets by the current liabilities. A higher ratio means a more liquid current position. Quick ratio is calculated as the sum of cash, cash equivalents, short term investment and accounts receivables

divided by the current liabilities. Cash ratio is calculated by adding cash to cash equivalents to invested funds and dividing the sum by current liabilities, thus measuring current assets available to cover current liabilities. Cash ratio is stringent and conservative of the three short-term liquidity ratios (current, quick and cash ratios). It focuses on the most liquid short-term assets of a firm while ignoring inventories and receivables (Mateev & Anastasov, 2010). Liquidity risk can be managed

using cash flow projections, diversified funding sources, stress testing, liquidity assets cushion and a contingency funding plan (Santucci, 2015).

Firm's liquidity as a determinant concerns the idea that firms grow faster if they hold a sustained level of current assets to pay off their short-term liabilities. Surplus cash enables firm to finance growth opportunities at lower cost or as cash guarantees for a bank loan. The internal finance theory of growth argues that low liquidity could lead to low profitability in short term which may be an obstacle to growth of a firm (Carpenter & Petersen, 2002). Myers and Mijluf (1984) suggested that firms whose values are largely determined by growth opportunities face more severe financing constraints due to asymmetric information. The trade-off theory predicts a positive linkage between liquidity and leverage given firms with high liquidity ratios can borrow and meet short term obligations on time. On the other hand, the pecking order theory predicts a negative relationship between liquidity and leverage, because a firm with greater liquidity prefers to use internally generated funds while financing new investments. These results to them having difficulties in achieving an optimal investment level which could lead to a growth constraint (Sheikh & Wang, 2011).

Firms Growth

Firm's growth is an essential indicator of prosperity and sustainability as efficient firms grow and survive whereas inefficient firms stagnate or exit because of a selection process. Firm's growth is defined as the magnitude change over time, distinct with increase in assets, share market, profits, customer base, branch networks, capital base and or social impact (Thomas, David & Krish, 2006). Growth entails generation of revenue, firms' value addition and business volume expansion besides qualitative aspects as product quality and customer goodwill (Kruger, 2004). Growth firm is one that is increasing at a rapid pace compared to its peers, the industry average or the broad economy over a sustained period and not just because of a one-time surge in revenues rather over several years. At each growth

stage, a firm encounters problems and opportunities which if solved leads to higher levels of productivity (Namusonge, 1998).

Growth and growth opportunities are intertwined. Growth opportunities are related to new investments and the market valuation of the firms and its ratio of sales growth to total assets growth from one year to another (Xu & Li, 2014). Delmar *et.al.*, (2003) established the growth indicators to include the financial or stock market value, the number of employees, the sales and revenue, the productive capacity and the added value of production. Sales growth is the most common business objective for managers. Demerits of sales includes it being relatively insensitive to capital intensity firms, sales can be influenced by a firm's arbitrary decisions like marketing strategies or financial decisions. Sales is also sensitive to inflation and currency exchange rates (Delmar *et.al.*, 2003). Other growth indicators include the ratio of the market value of the firm over the total liabilities (Padron *et.al.*, 2005), the annual growth in total assets or total fixed assets between time t and t-1 of the firm, market to book ratio though it is a challenge obtaining this ratio for private firms (Titman & Wessels, 1988; Cortez & Susanto, 2012), the ratio of investment expenditure over total assets (Titman & Wessels, 1988), earnings per shares, the ratio of market value (i.e. , debt plus equity market value) over the accounting value of the assets (Myers, 1977; Rajan & Zingales, 1995; Gaud *et.al.*, 2005; Kayo & Kamura, 2011) are considered suitable for measuring the effect of growth opportunities.

Added value is a good indicator of internal activity since it explains the capacity of the process to increase the value of the output. Unfortunately, it is not often publicly available for individual firms. The problem with employment is that this measure is based against the capital-intensive firm. On the opposite end, assets discriminate against the labor-intensive firm and firms that have a substantial level of outsourcing (Delmar *et.al.*, 2003). Since our sample consisted of private firms, we did not use

market measures such as market to book ratios for proxy of growth. Frank and Goyal (2009) suggest growth to be percent change in sales. This study applied, yearly sales growth rate as a proxy for measuring growth.

According to trade off theory, firms holding future growth opportunities, which are a form of intangible assets that add value to a firm and are not subject to taxable income but cannot be collateralized, tend to borrow less than firms holding more tangible assets. This finding suggests a negative relationship between leverage and firm's growth (Titman & Wessels, 1988). Agency theory also predicts a negative relationship because firms with greater growth opportunities have more flexibility to invest sub optimally, thus expropriate wealth from debt holders to shareholders (Sheikh & Wang, 2011). Growing firms provide a positive signal about the firm's future performance. It is expected that such firms tend avoid agency conflicts by borrowing less especially when they have high growth opportunities. This implies that growth rate has a negative relationship with long term leverage (Deesomsak *et. al.*, 2004). On the other hand, in line with the pecking order theory, growth has a positive impact on debt Chen (2004). This is evidenced by the notion that firms with strong growth opportunities may need capital beyond internal reserves to meet their capital investment requirements. This firms are more likely to tap the debt market rather than equity market as conjectured by Myers and Majluf's (1984).

Esperança *et. al.*, (2003) argue that future opportunities are positively related to leverage, in particular short-term leverage. Hence, the relationship between growth and leverage is ambiguous. This is because higher firm's growth means greater financial distress costs (Nakano & Kim, 2011). In some cases, however, diversification that is closely related to a firms' core product leads to an increase in profits (Rumelt, 1984). Gemba and Kodama (2001) found that manufacturing firms' diversification that is not related to a firm's core

field generally tends to decrease profitability even as it contributes to high growth.

Penrose (1959) suggested that an inverse relationship exists between current growth and future profits. The phrase "Penrose effect" implies that, as firms grow, they tend to spend more on administrative costs due to comparatively inefficient management and profit decrease (Nakano & Kim, 2011). According to scale economies theory (Besanko, Dranove & Shanley, 2007), growth draws the profit cart since growth can lead to future profits due to reduced costs and a more advantageous market position. However, some studies have revealed that growth is not the antecedent of profitability, and that rapid growth could seriously inhibit firms' profit generation (Delmar *et.al.*, 2003). Davidsson *et. al.*, (2002) claimed that profit focused firms are in a better position to reach profitable growth in the future than growth focused firms. In addition, firms with high growth and low profit are more likely to reach a state of low growth and low profit when compared to low growth, high profits firms. Panda (2015) is of the view that technology, diversification and productivity increases firm's growth.

Empirical Review

This study sampled observations, measured phenomena and knowledge from actual studies relating to capital structure determinants and firm's growth based on private firms listed under KAM directory. World Bank (2014), study noted that manufacturing performance over the past seven years was unsatisfactory, with manufacturing growth (3.1 percent) considerably lagging overall economic growth (5.0 percent) in Kenya. Growth in Kenya manufacturing firms is stagnating. Kippra (2013) in their Kenya Economic Report of 2013 notes that the input of the manufacturing sector to GDP has continued to stagnate at about 10 percent, with contribution to wage employment on a decreasing trend. Kariuki and Kamau (2014) in their study, explored factors influencing capital structure in private firms. Their study looked at whether growth opportunities, firm size, firm profitability,

and asset tangibility influence firm's capital structure. The study adopted a descriptive survey research design with a population comprised of private manufacturing firms with the KAM that are in Nairobi and its vicinity. A sample of 36 firms was selected for the survey using stratified random sampling technique, concentrating only on food and beverages manufacturing firms. Kariuki and Kamau (2014) concluded that growth opportunities positively influence capital structure while firm size negatively influence the capital structure, there is an insignificant relationship between firm profitability and the capital structure and there is insignificant positive interaction between asset tangibility and capital structure of private firms in Kenya. Our current study aims to establish the reversal effect of capital structure determinants on firm's growth.

Magara (2012), study wanted to find out the major determinants of capital structure and he established that from the period 2007 to 2011, there was a positive significant relationship between the firm size, liquidity, growth rate and the firm's leverage degree. The causal effect of capital structure on firms' growth was not factored. Namusonge (2011) in his study highlighted new approaches to what makes small and medium enterprises grow. Njenga (2013) study established that the behaviour of Kenyan firms can be explained by pecking order theory which is an indicator of asymmetry in the capital market. The study reveals that firm specific factors affecting the capital structure of listed firms in Kenya are asset tangibility, firm's profitability, firm size, growth opportunities of the firm and liquidity of a firm's assets, while economic growth and corporate tax rates are the macro-economic factors. Gathogo and Ragui (2014) paper concludes that size, asset growth, profitability, liquidity, cost of debt has a positive effect on firm's capital structure, but business risk and the industry type were not very strongly correlated to firm's capital structure. Wahome, Memba and Muturi (2015) study concluded that size had a significant influence on

capital structure with moderating effect of the management control while risk was not significant. Our study focused on relationship between capital structures determinants and firm's growth.

METHODOLOGY

The study adopted both descriptive and quantitative research design approach. The target population comprised of 393 firms from the five major strata that were chemical and allied, food and beverages, metal and allied, paper and paper board and plastics and rubber that represented 64.74 percent of the entire population of manufacturing firms (607 firms) registered in Kenya Association of Manufactures 2017 directory, excluding 101 firms that comprised of services and consultancy. A questionnaire was used as the instrument to collect primary data from the sampled firms (Hair, et al, 2006) whereby the respondents filled them in absence of the person administering them since they could easily be shared using emails (Kothari, 2011). The filled questionnaires data were entered and verified after coding. For easy management and longevity of the data, it was captured in Microsoft Excel 2013 after which data was exported into statistical package for the social sciences software (IBM SPSS Statistics 24).

This study analysis one independent variables and one dependent variable which measured, control and manipulated this research. The dependent variable in this study was the firm growth. The independent variable was liquidity. This is part of the firm specific characteristics, which may affect a firm's growth. The current ratio was calculated by dividing the current assets by the current liabilities for period 2011 to 2016. An increase in the current ratio reinforced a firm's liquidity position. Firms with a lower level of liquidity tend to have more cash constraints and possibility of having difficulties in repaying suppliers.

Analyzed data was presented using tables. This data presentation was intended to provide a visual view of the relationship between liquidity and how they influence manufacturing firm's growth.

FINDINGS AND DISCUSSION

Analysis of the Means and Standard Deviations of Various Statements of the Factors for Primary data.

The study used primary data to produce the descriptive results in terms of the means and standard deviations while secondary data was used to produce inferential results (correlation and regression). Finchman (2008) argues that descriptive results are used to describe the study population and aide in complementing the inferential analysis. This section represents the descriptive results of the primary and secondary data of all the study variables.

Means and Standard Deviation Analysis of Firm's Growth

The respondents were asked to rate statements on firm's growth on a Likert scale. The results in Table 1 indicated that the respondents agreed that an increase in sales turnover signifies growth of our firm (M = 4.38; SD = 0.49), Net income growth is a good indicator of the rate at which our firm has grown (M = 4.31; SD = 0.51), the direction change in total assets can be indicative of our firm's health and future prospects (M = 3.69; SD = 0.47), the higher the change in total assets, the faster the realized assets the more rapid our firm's growth (M = 3.85; SD = 0.51) and growth in earnings per share is an indicator that our firm is growing (M = 3.81; SD = 0.64). They however neither agreed nor disagreed

that rapid sales growth results in debt increase pressure which slows down our firm's overall growth (M = 2.63; SD = 1.17), increase in sales does not always imply our firm is growing (M = 3.44; SD = 1.12), mature firms have more constant level of firm growth due to lower net income growth rate than high net income growth rate firms (M = 3.31; SD = 0.69), constant drop in our firm's net income due to decrease sales indicates our firm's declining in growth (M = 2.56; SD = 1.00) as well as whether their firm tends to get higher returns when we focus than when we diversify in periods of low growth but they experience little difference in returns during periods of high growth (M = 3.19; SD = 0.53). These results reflect Kariuki and Kamau (2014) findings that growth opportunities positively influence capital structure of manufacturing firms. Similarly, these findings concur with Hovakimian *et.al.*, (2004), suggestion that high-growth firms have the possibility of bringing more capital gains to institutional investors than lower growth ones. The reason being institutional investors in view of them being taxpayers, prefer to invest in capital gain stocks to delay tax payments and to avoid double taxation. The statements were recorded in a Likert scale of between 1-5 where; 1= {1.49 and below} which was strongly disagree, 2= {1.50-2.49} which was disagree, 3= {2.50-3.49} which was neutral, 4= {3.50-4.49} which was agree and 5= {4.50 and above} which was strongly agree.

Table 1: Primary Data Descriptive Results on Firm Growth in terms of Mean and Std. Dev.

Statements	Mean	Std Dev
Increase in sales turnover signifies growth of our firm	4.38	0.49
Rapid sales growth results in debt increase which slows down firm's overall growth	2.63	1.17
Increase in sales does not always imply our firm is growing	3.44	1.12
Net income growth is a good indicator of the rate at which our firm has grown	4.31	0.59
Mature firms have more constant level of firm growth due to lower net income growth rate than high net income growth rate firms	3.31	0.69
Drop in firm's net income due to decrease sales indicates firm's declining in growth	2.56	1.00
The direction change in total assets indicate of firm's health and future prospects	3.69	0.47
The higher the change in total assets, the faster the realized assets the more rapid our firm's growth	3.85	0.51
Growth in earnings per share is an indicator that our firm is growing	3.81	0.64
Our firm tends to get higher returns when we focus than when we diversify in periods of low growth. But we experience little difference in returns during periods of high growth.	3.19	0.53

Secondary data was also collected on the firm's growth proxy which is growth in sales. The data was collected from the financial records of the manufacturing firms. Descriptive statistics of the variable were established. The mean as a measure of central tendency and the standard deviation a measure of dispersion was studied. Normality of data was also examined using Jarque-Bera. The results in Table 2 show the descriptive results for

sales. The standard deviation of the value of sales is 3.23 implying a moderate low variation in the value of sales change for the firms in the manufacturing sector over the years of the study period. Jarque-Bera was found to be significant implying that the data for sales was not normally distributed. Natural logarithm of sales was therefore computed to ensure data is normally distributed.

Table 2: Secondary Data Descriptive Results on Firm Growth

Indicator	Sales (% changes)
Mean	13.22
Maximum	18.47
Minimum	0.00
Std. Dev.	3.23
Skewness	-0.491
Kurtosis	0.985
Jarque-Bera	3.2
Probability	0.0001

Means and Standard Deviation Analysis of Liquidity

The first objective of the study was to determine the effect of liquidity on growth of manufacturing firms in Kenya. Respondents were asked to rate statements on liquidity on a scale of 1 to 5, where 1 represented strongly disagrees, 2 represented disagree, 3 represented neutrals, 4 represented agree and 5 represented strongly disagree. The findings are presented in Table 3 indicated an agreement with the statement that the period when a firm has more current assets as compared to current liabilities it experience fast growth (M = 4.38; SD = 0.60), firms tend to have problems meeting short-term financial obligations when current assets level is lower than current liabilities (M = 4.00 ; SD = 0.71), firm grows when current assets net of inventory is greater than current liabilities (M = 3.63; SD = 0.49) and the ease with which firm uses cash to retire current liability translates into firm growing faster (M = 3.50; SD = 0.50).

The respondents however neither agreed nor disagreed with the statement that when current

assets level is more than twice current liabilities this is a signal that a firm is experiencing working capital management problems {M = 2.94; SD = 0.83}, when most of a firm's assets can be converted into cash quickly a firm experience difficult in growing {M = 2.13; SD = 0.49}, when our cash ratio is low, we know a firm is facing insolvency challenge which can lead to decline in growth {M = 2.94; SD = 1.15}, firms still experience growth even when cash and cash equivalents are less than current liabilities {M = 3.31; SD = 0.69}, during period when a firm has no growth opportunities, it tend to have high levels of cash assets to cover current liabilities {M = 2.88; SD = 0.93} and firms entice creditors' confidence .in a firm growing by maintaining high cash ratio {M = 3.50; SD = 1.13}. Given that a higher liquidity ratio means a higher liquid flow in the firm hence implying high volumes of sales. This has a direct impact on the growth of the firm as suggested by (Nakano & Kim, 2011) and Oliveira and Fortunato (2006). Therefore, the higher the means depicts that the respondents agreed on a higher liquidity ratio which have an influence on the growth of the firms. The statements were recorded in a Likert scale of between 1-5 where; 1= {1.49 and below}

which was strongly disagree, 2= {1.50-2.49} which was disagree, 3= {2.50-3.49} which was neutral, 4= {3.50-4.49} which was agree and 5= {4.50 and above} which was strongly agree.

Table 3: Primary Data Descriptive Analysis on Liquidity in terms of Means and Std. Dev.

Statements	Mean	Std. Dev.
The period when our firm has more current assets as compared to current liabilities it experiences fast growth.	4.38	0.60
We tend to have problems meeting short-term financial obligations when our current assets level is lower than our current liabilities.	4.00	0.71
When our current assets level is more than twice our current liabilities this is a signal that we are experiencing working capital management problems.	2.94	0.83
Our firm grows when current assets net of inventory is greater than current liabilities.	3.63	0.49
The ease with which our firm uses cash to retire current liability translates into our firm growing faster.	3.50	0.50
When most of our assets can be converted into cash quickly, we experience difficult in our firm growing	2.13	0.49
When our cash ratio is low, we know our firm is facing insolvency challenge which can lead to decline in growth	2.94	1.15
Our firms still experience growth even when cash and cash equivalents are less than current liabilities	3.31	0.69
During period when we have no growth opportunities, we tend to have high levels of cash assets to cover current liabilities	2.88	0.93
We entice creditors' confidence in our firm growing by maintaining high cash ratio.	3.50	1.13

The study also collected secondary data on liquidity. It was captured as the ratio of current assets to current liability. The mean, standard deviation and normality of liquidity ratio was established and presented in Table 3. The results indicated that the liquidity ratio for the manufacturing firms on average is 8.904 for the study period. This implies that on average, the total of current assets relative to current liabilities for the entire study period was 8.904. The standard variation of the current ratio for the firms in the manufacturing sector was

53.665 for the study period. This implies that there was a high variation in current ratio amongst the firms in the manufacturing sector as well as over the years of the study period. The results further indicated that Jarque-Bera value was significant implying that the data was not normally distributed for the study period. To ensure that the data is normally distributed for purposes of inferential statistics, natural logarithm of the current ratio was obtained.

Table 4: Secondary Data Descriptive Analysis for Liquidity

	Liquidity Ratio
Mean	8.904
Maximum	688.517
Minimum	1.022
Std. Dev.	53.665
Skewness	11.873
Kurtosis	149.738
Jarque-Bera	160,194.873
Probability	0.000

Trend Analysis.

The study conducted trend analysis of all the study variables to establish the changes over the period of the study. Trend analysis was used to establish the stationary nature of the data, while revealing time effects on the data. The section presents the

findings of the mean sectorial values per year for each variable of the study.

Liquidity Trend Analysis on Growth of Manufacturing Firms in Kenya.

The study established the trends of liquidity of the manufacturing firms captured as liquidity ratio for a period spanning 2011 to 2016.

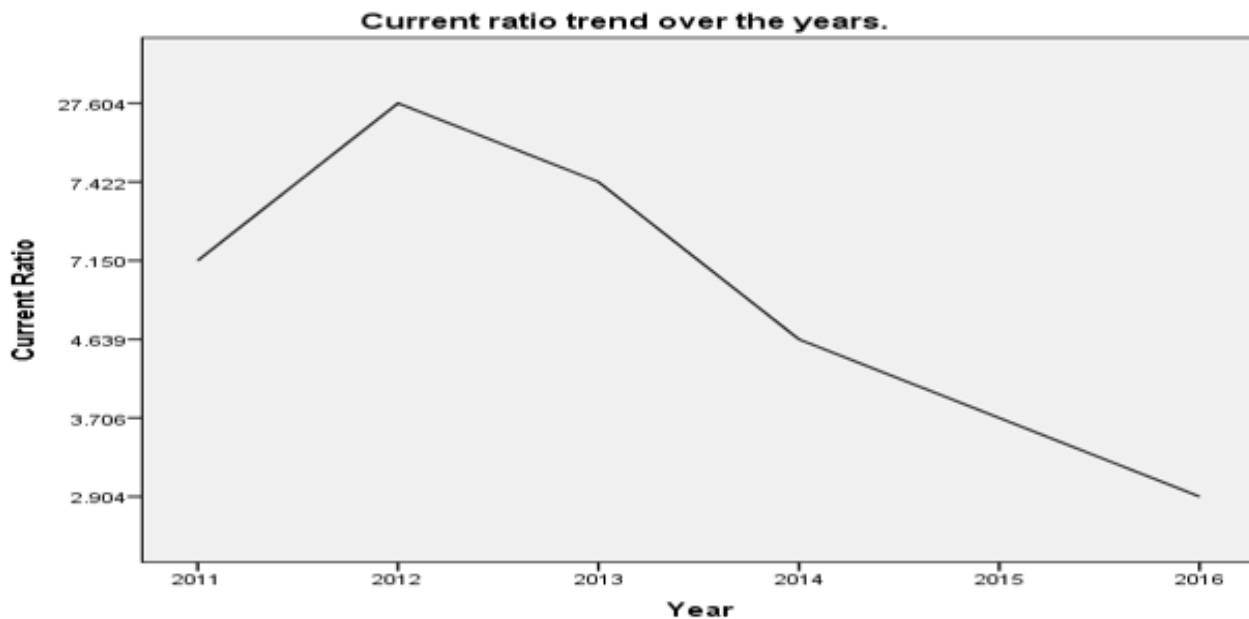


Figure 2: Current ratio trend analysis

The results for trends of current ratio as shown in Figure 2 indicated an unsteady fluctuation in the current ratio for the firms in the manufacturing sector for the entire study period. This implies that total assets relative to total liabilities for the firms in the manufacturing sector fluctuated unevenly for the given period. The study also revealed a steady increase in the current ratio for the firms in the manufacturing sector from 7.145 in the year 2011 to 27.604 in the following year after which the firms in the manufacturing sector experienced a steady decline in the current ratio for the remaining study period.

Hypothesis Testing

The study sought to test the null hypothesis that firm's liquidity has no significant effect on growth of manufacturing firms in Kenya.

H_0 : Firm's liquidity has no significant effect on growth of manufacturing firms in Kenya.

The null hypothesis on firm's liquidity having no significant effect on firm's growth was rejected since the p-value = 0.000 was less than the alpha level of 0.05 which implied that there was a statistically significant influence by firm's liquidity on the firm's growth of manufacturing firms in Kenya.

CONCLUSION AND RECOMMENDATIONS

The objective of the study was to determine the effect of liquidity on growth of manufacturing firms in Kenya. Respondents were asked to rate statements on liquidity. The findings indicated an agreement with the statement that the period when a firm has more current assets as compared to current liabilities it experienced fast growth, firms tend to have problems meeting short-term financial obligations when current assets level is lower than current liabilities, firm grows when

current assets net of inventory is greater than current liabilities and the ease with which firms uses cash to retire current liability translates into a firm growing faster.

The respondents however neither agreed nor disagreed with the statement that when current assets level is more than twice the current liabilities this is a signal that the firm is experiencing working capital management problems. When most of a firm's assets can be converted into cash quickly the firm experience difficult in growing, when our cash ratio is low then a firm is facing insolvency challenge which can lead to decline in growth. That firms still experience growth even when cash and cash equivalents are less than current liabilities, during period when firms have no growth opportunities, firms tend to have high levels of cash assets to cover current liabilities and firms entice creditors' confidence by maintaining high cash ratio. Given that a higher liquidity ratio means a higher liquid flow in the firm hence implying high volumes of sales. This has a direct impact on the growth of the firm as suggested by (Nakano & Kim, 2011) and Oliveira and Fortunato (2006). Therefore, the higher the means depicts that the respondents agreed on a higher liquidity ratio which have an influence on the growth of the firms.

The study also collected secondary data on liquidity. It was captured as the ratio of current assets to current liability. The results indicated that the liquidity ratio on average for the entire study period was 8.904. The standard variation of the current ratio for the firms in the manufacturing sector was 53.665 for the study period. This implies that there was a high variation in current ratio amongst the firms in the manufacturing sector as well as over the years of the study period. The results further indicated that Jarque-Bera value was significant implying that the data was not normally distributed for the study period. To ensure that the data is normally distributed for purposes of inferential statistics, natural logarithm of the current ratio was obtained.

On conclusion, firm's liquidity as a determinant concerns the idea that firms grow faster if they hold a sustained level of current assets to pay off their short-term liabilities. Surplus cash enables firm to finance growth opportunities at lower cost. The internal finance theory of growth argues that low liquidity could lead to low profitability in short term which may be an obstacle to growth of a firm (Carpenter & Petersen, 2002). The trade-off theory predicts a positive linkage between liquidity and leverage given firms with high liquidity ratios can borrow and meet short term obligations on time which it is anticipated can spur growth. On the other hand, the pecking order theory predicts a negative relationship between liquidity and leverage, because a firm with greater liquidity prefers to use internally generated funds while financing new investments. These results to them having difficulties in achieving an optimal investment level which could lead to a growth constraint (Sheikh & Wang, 2011). The results revealed that liquidity as a current ratio, is positively significantly associated with firm growth. This implied that an increase in current ratio leads to a significant increase in firm growth of manufacturing firms in terms of growth in sales volumes. As revealed by the findings, liquidity has a positive and statistically significant effect on firm growth of manufacturing firms in Kenya. From the results, the null hypothesis on firm's liquidity having no significant effect on firm's growth was rejected since the p-value = 0.000 was less than the alpha level of 0.05 which implied that there was a statistically significant influence by firm's liquidity on the firm's growth of manufacturing firms in Kenya. These findings implied that an increase in liquidity leads to a positive and significant effect on firm growth of manufacturing firms in Kenya. This supports the suggestion by Oliveira and Fortunato (2006) that liquidity has a direct impact on growth of the firm given that a higher liquidity ratio means a higher liquid flow in the firm hence implying high volumes of sales.

Based on the above conclusions we recommend that for manufacturing firms in Kenya to grow, there is need to priorities liquidity. From the study, the hypotheses for both liquidity had a positive significant to growth of manufacturing firms. Further, from the data liquidity accounts for up to 26.7% of the variations in sales of the manufacturing firms in Kenya.

Areas for Further Research

The study focused on establishing the effect of liquidity on growth of manufacturing firms not listed on Nairobi Securities Exchange in Kenya. There is a need for future studies to establish the other factors for comparison of the findings of the current study.

Contract manufacturing if research is undertaken and the concept implement may unlock the current

growth stagnation of manufacturing firms in Kenya. Firms aims at having integrated production process that reduce costs, are easier to scale production, process that enhance talent acquisition of resource skill set required and generally have ability to make the firm focus on its core objectives.

Apart from the liquidity determinant used in this study, different other determinants can be chosen to study how they relate to firm's growth and firm value with larger sample size can be taken to analyse the relationship among liquidity and firm's growth. Future study on effect of liquidity on growth can be taken to compare the various countries results analysis example, Africa versus South Asian economies.

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