

## Influence of Debt Financing On Financial Growth of Floriculture Exporting Firms in Nakuru County, Kenya

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### Abstract

The floriculture exporting firms are very important to the socio-economic development of Kenya since they are credited with contributing to foreign exchange enjoyed by the country. As such, their financial growth is imperative to the entire nation. However, their financial growth has been declining, an issue that necessitates establishing the influence of capital structure on this growth. This study, therefore, examined the influence of debt financing on financial growth of floriculture exporting firms in Kenya with a special focus on firms operating in Nakuru County. The study was guided by Modigliani and Miller and pecking order theories. A descriptive research design was adopted. A total of 180 staff working with these firms constituted the accessible population. A sample of 65 respondents was drawn using both purposeful and simple random sampling techniques. A structured questionnaire was used in data collection. Both the validity and reliability of the questionnaire were determined prior to using the instrument in data collection. The collected data were analyzed using descriptive and inferential statistics and with the aid of the Statistical Package for Social Sciences programme. Descriptive analysis used frequencies, percentages, means and standard deviations to describe the views of the respondents with regard to capital structure and financial growth of floricultural exporting firms. Inferential statistics involved the use of Pearson's Product Moment Correlation and simple linear regression analysis. The response rate was 90.0%. The relationship between debt financing and financial growth, though negative, was found to be statistically significant to growth ( $r = -0.272$ ;  $p < 0.05$ ).

**Key words:** Debt financing; financial growth; floricultural exporting firms; Nakuru County

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### I. Introduction

Debt financing refers to the act of borrowing funds from companies and investors by using bonds, banks and other financial institutions with the aim of supporting business operations. The companies and financial institutions who lend the funds then expect to be paid the total amount borrowed plus the accumulated interest at a later point in time (Bratton, 2016). Many businesses lack start-up capital, hence, they decide to borrow either from personal sources such as family and friends or from impersonal sources such as banks and other financial institutions (Coleman, Cotei, & Farhat, 2016).

Growth is likely to place a greater demand on internally generated funds and push the firm into borrowing (Hall, Hutchinson & Michaelas, 2004). According to Marsh (2012), firms with high growth will capture relatively higher debt ratios. In the case of small firms with more concentrated ownership in Sweden, it is expected that high growth firms will require more external financing and should display higher leverage (Heshmati, 2011). Heshmati (2011), however, holds the view that firms with growth opportunities will have a smaller proportion of debt in their capital structure. This is because conflicts of interest between debt and equity holders are especially serious for assets that give the firm the option to undertake such growth opportunities in the future. He argues further that growth opportunities can produce moral hazard situations and small-scale entrepreneurs have an incentive to take risks to grow.

In Sub-Saharan Africa, there exists an inverse relationship between capital structure and financial performance; he found out that debt affects profitability negatively. Capital structures of large firms have higher debt equity ratios (Abor, 2008). This is attributed to the debt tax shield that firms utilize to maximize their profits. Among South African firms, financial leverage affects financial performance positively (Fan, Titman, & Twite, 2012).

According to Muma (2012) there exists a positive relationship between leverage and capital structure and a negative relationship between liquidity and capital structure of agricultural firms in Kenya. Short term debt affects financial performance positively, and high debt ratios may lead to bankruptcy costs and decrease in shareholders' wealth (Njagi, 2012). The financing choice a firm decides to adopt can make or break a company

in terms of profits or potential bankruptcy, thus the importance of understanding the factors that a firm should consider to avoid negative financial performance.

### **Statement of the Problem**

Floriculture industry plays a critical role in the development of the horticulture sub-sector and, in extension, the agriculture sector in Kenya. In tandem with expected growth and development of the economy, the floriculture industry should ideally record significant financial growth. According to Horticultural Crop Directorate (HCD) provisional statistics, the Floriculture industry earned the country a total of Ksh 82.25 Billion in 2017. This underpins the importance of subsector to the national economy. Though, the value of flower export has been increasing from Ksh 54.60 billion in 2014 to Ksh 62.92 billion in 2015 to Ksh 70.80 billion in 2016 and to Ksh 82.25 billion in year 2017; the export values have been fluctuating over the aforesaid period. Indeed, the increase in flower export volumes between years 2016 and 2017 was 19.68% whereas increase in export values was 16.17% over the same period. This indicates that the value of exports was significantly lower than the volumes of flowers exported out of the country. These statistics indicate that financial growth of the floriculture industry is lower than it would be expected. More so, several floricultural farms have closed down. These include Karuturi Harvest and Flower City Vegpro alongside one branch each of Oserian, Thika Finlay and Primarosa. Therefore, it would be imperative to examine the contribution of financial capital to the aforementioned financial growth. The empirical studies that have done so far, have fallen short of expressing the link between various aspects of capital structure (debt financing, owners' equity financing, and retained earnings financing) and financial growth of floricultural farms in Kenya. For instance, a study by Maavi, Kiweu, and Kinyili (2017) though addressed capital structure and financial performance of agricultural firms, it did not attempt to link debt financing to financial growth. Another study by Muli (2013) addressed the effects of capital structure on financial performance. However, it did not link the same to financial growth. Similarly, a study carried out by Kinyua and Muriu (2017) fell short of addressing retained earnings in the context of financial growth in floricultural farms. The foregoing comparison between past related studies and the current empirical study brings to the fore existing research and knowledge gaps with regard to capital structure and financial growth of floriculture farms in Kenya. It is against this backdrop that this study is necessitated.

### **Objective**

To determine the influence of debt financing on financial growth of floriculture exporting firms in Nakuru County.

### **Hypothesis**

**H<sub>0</sub>:** Debt financing does not significantly influence financial growth of floriculture exporting firms in Nakuru County.

### **Theoretical Framework**

The study was guided by the Modigliani and Miller theorem and the pecking order theory. These theories have been discussed in relation to debt financing and financial growth of floriculture exporting firms.

### **Modigliani and Miller Theorem**

Pagano (2005) argued that the Modigliani and Miller Theorem were formulated in 1958 and it advocated for capital structure irrelevance in determining firm value. Miller and Modigliani observed that the firm's value was dependent on the operating profits and future prospects of growth for the firm. High future growth prospects result in high market value and high share prices. Fan (2012) agreed that whether a firm decides to take up more debt and become a highly leveraged firm or whether it decides to have a lower debt component was completely irrelevant to the value of the firm. Bose (2010) observed that the theory was based on the assumptions that: there were no taxes, the borrowing costs were same for both investors and companies, information was symmetrical both for the investors and the companies thus reducing the chances of agency costs and investors would be rational in the decision making process, transaction costs for selling and buying shares were non-existent, debt financing did not affect the earnings before interest and taxes (EBIT) therefore the market value of the firm is not dependent on the capital structure policy adopted by the firm.

Modigliani and Miller (1958, 1961 and 1963) devised three propositions to support their capital structure irrelevance theory. The first proposition states that the capital structure composition does not affect firm value and increasing the debt proportion to finance the assets of the firm does not increase the firm's value. This proposition argued that both the creditors and shareholders have the same priority and income gained is divided equally among them. The second proposition states that as the firm increases leverage, shareholders perceive a higher risk and a higher return thus leading to an escalation in cost of equity. An escalation in the debt-equity ratio leads to a hike in cost of capital.

According to Villami (2000) Modigliani and Miller's third proposition states that the market value is unconstrained by the dividend policy. Whether a firm decides to pay higher dividends or no dividends at all, the firm's value will be unaffected by the dividend policy implemented by the firm. Stern and Chew (2003) argued

that market values of firm are affected by the dividend policy and even though they acknowledged the work of Modigliani and Miller, they provided evidence that proves that movements in stock prices are affected by the capital structure decision and the dividend policies that firms implement. Stiglitz (1969) disputed the assumptions under which the M&M theory was based on. He pointed out that it was impossible for corporates and individuals to borrow at the same market rate and bankruptcy costs do exist. Furthermore, taxes are existent and capital markets are imperfect. Assumptions should be close to reality and most of the assumptions in the M&M seem to be based in a control environment. In the real world individuals borrow at higher market rates than corporate organizations.

The study applied Modigliani and Miller Theorem to support the first objective; to determine how debt structure influences the growth of floriculture exporting firms in Nakuru County based on the assumption: there were no taxes, the borrowing costs were same for both investors and companies, information was symmetrical both for the investors and the companies thus reducing the chances of agency costs and investors would be rational in the decision making process, transaction costs for selling and buying shares were non-existent.

### **Pecking Order Theory**

The Pecking Order Theory was introduced by Myers and Majful (1984). Myers and Majful (1984) argued that firms prefer internal financing and would rather use retained earnings to finance future projects before resorting to debt and finally equity. They stated that when firms issue new equity, investors will devalue new equity issued since they believe that the new equity is overvalued. Firms will use internal funds then issue debt and when the firm exceeds the target leverage ratio they will issue new equity (Baskin, 1989). Abosede (2012) analyzed the assumptions put forward in the pecking order theory and added some assumptions which included: new shares must be issued to the public and not the insiders, information is asymmetrical between the shareholders and the firm's managers, cost of equity is much higher than the cost of incurring debt and managers have more knowledge on the value of the future projects. The cost of equity surpasses the cost of debt due to the probability of undervaluation by investors; therefore, firms will opt to follow the pecking order.

Myers and Majful (1984) stated that firms will shy away from issuing new equity and as a result they will pass out new investment opportunities to avoid the perception of overvaluation by investors. Fama and French (2002) agreed with these observations by Majful and stated that organizations with fewer investments pay higher dividends to their shareholders. This would make sense due to the fewer number of shareholders hence the cake is divided among fewer shareholders unlike a firm with a low debt-equity ratio. Baskin (1989) emphasized the importance of transaction costs in making the choice between stock and leverage. The hierarchy of financial decision making policy is highly dependent on transaction costs. Firms will opt to follow the option that has the lowest costs in order to maximize profits. He analyzed the USA markets and concluded that the cost of incurring debt was much lower in those markets than the cost of equity, thus they follow the pecking order. Huang and Ritter (2009) found out that managers want to be in control of the decision making process and will avoid the equity option because they will lose grip of financial policy formulation in the firm. The higher the number of shareholders in the firm, the lower the power they have over the decision-making process. High leverage ratios and number of shareholders restricts the managerial power of financial directors, they are constrained by both the shareholders and suppliers demands and are unable to make financial decisions fast without facing bottlenecks in the process.

Managers will minimize restrictions on their financial control by using internal funds to finance investment projects first and will only proceed to source for external funds once retained earnings are inadequate to fund future projects. They will seek short term loans which have minimal restrictions and do not require collateral and if they still need more funds, they will proceed to take up long term debt (Fox, 1998). The last option is equity financing, after all retained earnings and short- and long-term debt have all been used up, thus following the pecking order theory. Hijazi (2006) outlined the limitations of the pecking order theory by pointing out that it ignores the effects of agency costs and effects of accumulating too much retained earnings, if financial managers are too keen to follow the pecking order theory, they may avoid investing retained earnings on present investment opportunities to keep the funds for future projects to avoid borrowing in the future and as a result losing out on new and lucrative investment opportunities. The researcher anchored Pecking Order Theory to the objective which sought to assess how leverage decisions influences the growth of floriculture exporting firms in Nakuru County that argued that firms prefer internal financing and would rather use retained earnings to finance future projects before resorting to debt and finally equity. They stated that when firms issue new equity, investors will devalue new equity issued since they believe that the new equity is overvalued.

### **Empirical Review**

This section covers a review of past studies with regard to debt financing and financial growth of floriculture firms and related entities.

### **Debt Financing**

A study was undertaken by Yuan, Hu, and Gao (2011) on the choice of farmers and informal credit markets in China. The objective of the study was to investigate farmers' borrowings from formal and informal sources with low or high interest, considering both supply and demand. Data from the 2006 Rural Household Survey was analyzed. It was established that farmers' borrowing behaviour was influenced by their financial conditions. The study concluded that high income and savings implied lower constraints.

An empirical study was carried out by Qwabe (2014) on lending to small-scale farmers in South Africa. The purpose of the study was to establish whether formal financial institutions followed their agricultural lending operations for small-scale farmers properly or not. Qualitative data were collected and subsequently analyzed. The results indicated that formal institutions in South Africa had not realized better delivery modalities that encouraged and supported agricultural finance accessibility among small scale farmers. Furthermore, it was revealed that the loan appraisal process was based on the banking routine of the farm enterprise.

A study was conducted by Maavi, Kiweu, and Kinyili (2017) on capital structure and financial performance of agricultural companies in Nairobi. The aim of this study was to determine the influence of capital structure on financial performance of agricultural companies. The study targeted 6 agricultural companies. Secondary data were obtained through desk research. Data were analyzed using SPSS. The findings of the study implied that in order to increase in financial performance, an increase in debt ratio would be necessary. It was also revealed that an increase in debt combinations would lead to a decrease in after tax profits of the companies and that capital structure affected financial performance. The study recommended that debt ratio and debt equity be well managed for better performance. However, the study did not focus on floricultural firms and their financial growth relative to debt financing.

### **Growth of Floriculture Exporting Firms**

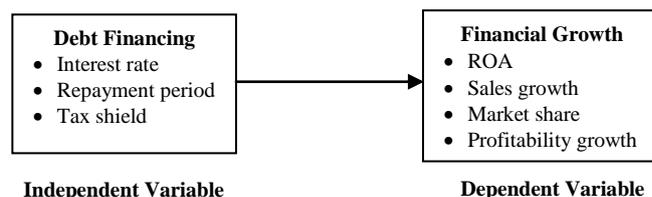
A study assessing the performance of Dutch agricultural and horticultural cooperatives was conducted by Roskam (2013). The goal of the study was to examine the trends in performance of agricultural and horticultural cooperatives between 1993 and 2012. The study used data envelopment analysis with bootstrapping in order to estimate weights for aggregating key performance indicators. The results of the study indicated that agricultural cooperatives have performed best over the years as compared to horticultural cooperatives which have performed poorly.

A study conducted by Udeorah and Vincent (2018) evaluated agricultural financing and performance of the agricultural sector in Nigeria. The objective of the study was to determine the effect of financing sources on the performance of the agricultural sector in the country. Econometric research approach was used for the study. The study used annual data from the period of 1981-2015. The results of the study revealed that using both bank and government financing had an impact on the performance of the agriculture sector in Nigeria.

A local study assessing the financial factors which influence the growth of horticultural sector in Nakuru County was conducted by Tonui and Kimani (2016). The study examined the financial factors which affected the growth of the horticultural sector. The study employed cross-sectional survey research design. The study targeted accountants, management staff and finance staff working at horticultural farms in the County. The sample population comprised of 98 respondents. Structured questionnaires were used as tools of data collection. Descriptive statistics were used in data analysis with the aid of the statistical package of social sciences. The findings established that working capital had the most significant influence on horticultural farms growth. Against this backdrop, the study failed to capture the concept of debt financing and focused more on growth of floricultural farms.

### **Conceptual Framework**

A conceptual framework according to Orodho (2009) is a type of a model that illustrates the nature of relationships between independent and dependent variables in the study. The conceptual framework in Figure 1 hypothesizes the relationships between debt financing and growth of floriculture exporting firms.



**Figure 1: Conceptual Framework**

## **II. Research methodology**

This section outlines the methodology that was followed to conduct the study. It encompassed research design, target population, sample and sampling procedure, description of research instruments, data collection methods and data analysis procedures as they were used.

### **Research Design**

This study was carried out using descriptive research design. According to Nassaji (2015) the major purpose of descriptive research is to describe the state of affairs as it exists. It is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. Descriptive research seeks to establish factors associated with certain occurrence, outcomes, conditions or types of behaviour. This study adopted this design to determine the degree in which factors (variables) exist and try to discover the links or relationships that exist between them.

### **Target Population**

The target population refers to members of a real or hypothetical people to whom a researcher wishes to generalize the results of the study (Gall, Borg, & Gall, 2003). The floricultural exporting firms in Nakuru County constituted the target population. There were 60 such firms in the County when the data for the study was being collected. Three staff attached to the finance department of each firm constituted the accessible population. Therefore, the study population comprised a total of 180 staff.

### **Sample Size**

The required sample size is influenced by the size of the population the sample seeks to represent, the number of variables in the data gathering instrument, the requirement for statistical analysis, and the degree of confidence required from the results (Cohen, Manion, & Morrison, 2003). Nassiuma's (2008) formula was employed to determine the sample size as shown below.

$$n = \frac{NC^2}{C^2 + (N - 1)e^2}$$

Where:

'n' = Sample size

'N' = Study population (180)

'C' = Coefficient of variation ( $21\% \leq C \leq 30\%$ )

'e' = Precision level ( $2\% \leq e \leq 5\%$ )

The equation was substituted thus;

$$n = \frac{180 \times 0.3^2}{0.3^2 + (180 - 1) 0.03^2}$$

n = 64.52  
n = 65 respondents

Therefore, the sample size was found to be 65 respondents.

A sample of 65 finance staff was obtained from the floricultural exporting firms in Nakuru County. Naivasha Sub-County, Rongai Sub-County, Subukia Sub-County produced 32, 18, and 15 respondents respectively. This was supported by the fact that in Nakuru County, Naivasha Sub-County has the largest concentration of floricultural exporting firms followed by Rongai and Subukia Sub-Counties respectively.

### **Sampling Technique**

Sampling is the process of selecting a representative of a total population in order to produce a miniature (small) cross section; it is a small proportion of the target population selected for analysis (Kothari, 2004). The sampling procedure refers to the techniques used to draw a representative sample size. Both purposive and simple random sampling techniques were used to draw the sampled respondents from the 180 staff working with floriculture exporting firms in Nakuru County. Purposive, in that only the staff conversant with finance issues were considered. Simple random sampling technique was employed since there was homogeneity in the distribution of the aforementioned firms (each contributed an equal number (3) of staff as respondents). This sampling technique ensured that the selected staff and firms had an equal chance in participating in the study.

### **Research Instrument**

The study used structured questionnaires to collect primary data. The questionnaires consisted of close-ended data items (questions) which facilitated collection of quantitative data. Questionnaires have the advantages of low cost, easy access, physical touch to widely dispersed samples, and also the fact that the data collected using them are quantifiable. However, the use of questionnaires requires careful preparation as it could easily confuse the respondents, or discourage them, or simply fail to capture important information needed in the study (Mugenda & Mugenda, 2003).

### **Data Collection Procedure**

The researcher sought the approval of the University to collect data with regard to the study in question. Moreover, a research permit and authorization letter from the National Commission for Science, Technology and Innovation (NACOSTI) was obtained before collecting requisite data. The consent of senior management of each of the surveyed floriculture exporting firms was sought and duly obtained. Ethical considerations were factored in by explaining to the prospective respondents the purpose of the study and also reassuring them that the information they divulge would only be used for academic purposes. The data were collected for a period of between 5 and 10 working days.

### **Data Analysis**

The data collected were analyzed using both descriptive and inferential statistics with the help of Statistical Package for Social Sciences (SPSS). Descriptive analysis involved frequencies, percentages, means and standard deviations to describe the views of the respondents with regard to capital structure and financial growth of floriculture exporting firms. Inferential statistics involved the use of Pearson's Product Moment Correlation Coefficient, simple linear regression analysis, and multiple regression analysis. The following regression model was adopted. The feasibility of the multiple regression was subjected to the acceptable threshold of Variance Inflated Factors (VIF). This diagnostic test was used to assess the extent of multicollinearity amongst independent variables.

$$Y_i = \beta_0 + \beta_1 x_1 + \varepsilon$$

Where;

y = Financial Growth

$\beta_0$  = Constant

$X_1$  = Debt Financing

$B_0$  to  $\beta_1$  = Beta Coefficients for Independent Variable

$\varepsilon$  = Error Estimate with Normal Distribution Assumption

## **III. Data Analysis and Presentation**

This section covers the results of the data analysis alongside pertinent interpretations and discussion. The first part presents the results in relation to descriptive statistics. The last section covers results of inferential statistics. The findings are in line with study variables debt financing and financial growth.

### **Descriptive Analysis**

In this section, views of representatives of floricultural exporting firms in Nakuru County are put into perspective. The data was collected in respect of debt financing and financial growth were on a 5-point Likert scale where integers 1, 2, 3, 4 and 5 represented strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree respectively. The results herein are presented using descriptive statistics that comprise percentages, means, and standard deviations which express measures of distribution, central tendencies and dispersion in that order.

### **Descriptive Results on Debt Financing**

The study examined the views of finance staff in relation to debt financing. The results indicated in Table 1 revealed that majority (98.1%) of the respondents admitted that their firms allowed a significantly long loan repayment period of over 5 years. A total of 87.0% of the surveyed finance staff agreed that their firms had considerably increased the level of borrowing in the last 5 years. More so, it was established that 96.4% of the respondents registered their agreement with the opinion that their firms got debt financing on negotiable interest rates. Additionally, 87.0% of the respondents agreed that debt capital comprised of more than 30% of their company's capital structure. Regarding the argument that interest tax shield made debt financing relatively cheap compared to other sources of finance 79.7% of the respondents concurred with the view. However, 18.5% of the respondents were neutral. These findings deferred with the observations made in a past empirical study conducted by Maavi et al, (2017) that an increase in debt would lead to decrease in after tax profits of agricultural companies in Nairobi County.

It was further observed that the respondents, in general, strongly agreed that their firms allowed a significantly long loan repayment period of over 5 years (mean = 4.50). On average the respondents were in admission that their firms had considerably increased the level of borrowing in the last 5 years (mean = 4.28). The respondents generally concurred with the assertions that their firms got debt financing on negotiable interest rates (mean = 4.27); debt capital comprised of more than 30% of their company's capital structure (mean = 4.22); and that the interest tax shield made debt financing relatively cheap compared to other sources of finance (mean = 3.91). The views of respondents in respect of debt financing were largely similar (std dev > 1.000).

It is apparent that majority of the respondents were generally in agreement with propositions under debt financing in floricultural exporting firms in Nakuru County. This is evidenced by the results of the mean being generally inclined towards either 4 (agree) or 5 (strongly agree), and the standard deviation being relatively small (less than 1.000) in most of the assertions. Conclusively, the aforesaid firms were allowed a long loan repayment period by their financiers. Although, they were generally allowed to negotiate the lending rates, this did not guarantee improved financial performance possibly due to increased indebtedness.

**Table 1: Descriptive Statistics for Debt Financing**

	SA (%)	A (%)	NAND (%)	D (%)	SD (%)	Mean	Std. Dev.
Our firm allowed a significantly long loan repayment period of over 5 years.	51.9	46.3	1.9	0.0	0.0	4.50	.541
Our firm has considerably increased the level of borrowing in the last 5 years.	46.3	40.7	7.4	5.6	0.0	4.28	.834
Our firm gets debt financing on negotiable interest rate.	44.5	51.9	3.8	0.0	0.0	4.27	.478
Debt Capital comprises of more than 30% of the company's capital structure.	48.1	38.9	0.0	13.0	0.0	4.22	.984
The interest tax shield makes debt financing relatively cheap compared to other sources of finance.	13.0	66.7	18.5	1.9	0.0	3.91	.622

### Descriptive Results on Financial Growth

In addition, the study examined various issues descriptive of financial growth of floricultural exporting firms operating in Nakuru County. The findings regarding financial growth of floriculture exporting firms are shown in Table 2. It was revealed that most (77.8%) of the finance staff working with the surveyed floricultural firms admitted that their respective firms had posted increased annual sales growth over the previous 5 years. It was also noted that, 48.1% of the participants agreed that their firms had witnessed increased return on assets over the preceding 5 years. However, 35.2% of the staff disputed the foregoing opinion.

The study further observed that 46.3% of the respondents disagreed that their firms had recorded consistent increase in annual profitability over the last 5 years. The findings were in concurrence to those of a past study conducted by Roskam (2013) which had indicated that horticultural cooperatives performed poorly from 1993 to 2012. Only 16.7% of the respondents were in agreement with the aforesaid assertion. Regarding the argument that the market share had recorded significant annual increase over the previous 5 years, majority (70.4%) of the respondents disagreed with the assertion.

The results also demonstrated that the respondents generally concurred that their respective firms had posted increased sales growth per year over the last 5 years (mean = 3.61). The views of respondents regarding this assertion were closely related (std dev < 1.000). The study also noted that, on average, the respondents were indifferent pertaining the proposition that their firms had witnessed increased return on assets over the preceding 5 years (mean = 3.13). In general, the participating staff disagreed with the view that their firms had recorded consistent increase in annual profitability over the last 5 years. The views of the surveyed staff regarding the aforesaid assertions were largely similar (std dev < 1.000). Furthermore, the respondents averagely disagreed that the market share had significantly increased over the last 5 years. The views of respondents in relation to this propositions varied substantially (std dev > 1.000).

The findings led to the inference that over the past five years, floricultural exporting firms in Nakuru County had recorded increased growth in annual sales turnover. However, this did not translate to increased profitability, return on assets, and market share over the aforesaid period of time. This could be attributed to fluctuating market prices especially in the European markets which are the major destinations of the produce of the floricultural firms. This means albeit increased production and sales, this did not translate to increased unit return on assets. Another probable conclusion would be that in spite of increased sales turnover, the expenditure (variables costs) exemplified by working capital increased either in tandem or in greater proportions than the sales. Therefore, the revenue recorded could be higher but profitability would be on a declining trend. The observation that the market share of floricultural exporting firms in Nakuru County did not increase substantially could have resulted from other counties and countries having successfully embarked on floricultural farming, thus getting a sizeable slice of the aforesaid firms' market niche.

**Table 2: Descriptive Statistics for Financial Growth**

	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev.
Our firm has posted increased sales growth per year over the last 5 years.	0.0	77.8	5.6	16.7	0.0	3.61	.763
Our firm has witnessed increased return on assets of over year over the last 5 years.	0.0	48.1	16.7	35.2	0.0	3.13	.912
Our firm has recorded consistent increase in profitability per year over the last 5 years.	0.0	16.7	18.5	46.3	18.5	2.33	.971
The market share has significantly increased per year over the last 5 years.	0.0	16.7	13.0	42.6	27.8	2.19	1.029

### Correlation Analysis

Correlation analysis was done to examine how debt financing related to financial growth of floricultural exporting firms operating in Nakuru County between years 2014 and 2018. The correlation results are presented in Table 3.

**Table 3: Correlation between Debt Financing and Financial Growth**

Debt Financing		Financial Growth
	Pearson Correlation	-.272 <sup>*</sup>
	Sig. (2-tailed)	.047
	n	54

**\*. Correlation is significant at the 0.05 level (2-tailed).**

The correlation results shown in Table 3 indicated that there existed a negative, weak and statistically significant relationship between debt financing and financial growth ( $r = -0.272$ ;  $p < 0.05$ ). These results were interpreted to mean that an increase in debt financing was likely to minimally reduce the financial growth of floricultural exporting firms in Nakuru County. The aforesaid reduction was also likely to be substantial. As such, though debt financing did not have huge implications on financial growth of the aforesaid entities, it could not be ignored since it played a critical role in these firms.

These results, however, were a departure from observations made in a previous empirical study conducted by Maavi et al, (2017) that an increase in debt ratio was necessary in enhancing financial performance of agricultural firms. Unlike this study which linked debt financing to financial growth, an earlier study by Echoka (2010) noted that credit performance was affected by both internal and external challenges. These could possibly have included factors that hinder debt financing.

### Regression Analysis

The results of simple linear regression with regard to debt financing and financial growth are presented in Table 4 Table 5 and Table 6.

**Table 4: Model Summary for Debt Financing on Financial Growth**

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.272 <sup>a</sup>	.074	.056	.56458

**a. Predictors: (Constant), Debt Financing**

The results illustrated in Table 4 indicate that debt financing explains 7.4% of variance in financial growth of floricultural exporting firms in Nakuru County ( $r^2 = 0.074$ ).

**Table 5: ANOVA for Debt Financing on Financial Growth**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.323	1	1.323	4.150	.047 <sup>a</sup>
	Residual	16.575	52	.319		
	<b>Total</b>	<b>17.898</b>	<b>53</b>			

**a. Predictors: (Constant), Debt Financing**

**b. Dependent Variable: Financial Growth**

The results of F-statistics,  $F_{1, 52}$  (4.150;  $p < 0.05$ ) as shown in Table 5 illustrate that the effect of debt financing on financial growth was statistically significant at 0.05 level of significance. This implied that the sample data fitted the simple linear regression model adopted.

**Table 6:** Regression Coefficients for Debt Financing on Financial Growth

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	4.120	.645		6.386	.000
Debt Financing	-.308	.151	-.272	-2.037	.047

a. Dependent Variable: Financial Growth

The results shown in Table 6 were used to interpret the following model.

$$Y_i = \beta_0 + \beta_1 x_1 + \varepsilon$$

$$Y_i = 4.120 - 0.308x_1$$

The results indicated that a unit change in financial growth was subject to -0.308 unit change in debt financing ( $\beta_1 = -0.308$ ) when other factors were held constant ( $\beta_0 = 4.120$ ). As earlier indicated by the results of F-statistics, the results of t-statistics revealed the effect of debt financing on financial growth of floricultural exporting firms in Nakuru County was statistically significant ( $t = -2.037$ ;  $p < 0.05$ ). These results corroborated earlier findings that increasing debt combinations could result in reduced profitability of firms (Maavi et al, 2017).

### Testing Null Hypothesis

The results of the t-statistics captured in Table 6 were used in testing the null hypothesis. It was indicated that the effect of debt financing on financial growth of floriculture exporting firms was not statistically significant ( $t = -2.037$ ;  $p < 0.05$ ). This implied that the null hypothesis ( $H_{01}$ : Debt financing does not significantly influence financial growth of floriculture exporting firms in Nakuru County) was rejected since it contradicted the results of the analysis.

## IV. Conclusions

The following conclusions were made in respect of the study findings. It was concluded that floriculture firms allowed a long loan repayment period of over 5 years and had considerably increased the level of borrowing since 2014 to date. It was, further, inferred that the firms got debt financing on negotiable interest rates. Additionally, it was concluded that more than 30% of the floriculture firm's capital was made up of debt capital. Moreover, the study deduced that interest tax shield made debt financing relatively cheap.

## V. Recommendations

The study further made the following recommendations in light of the conclusions made. The study recommended that debt financing should only be used in cases where the firm has exhausted internal funds. It was also recommended that firms should negotiate for lower interest rate charges on loans extended to them. The study, further, recommended that floricultural firms should focus on reducing the percentage of debt used in order to increase financial growth. In addition, the study recommended that equity financing should not be encouraged in financing floriculture firms but should be used as an alternative when retained earnings are insufficient.

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