

**FINANCIAL FACTORS INFLUENCING GROWTH OF HORTICULTURAL
SECTOR IN NAKURU COUNTY, KENYA**

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this project to all horticultural firms in Nakuru County for this research work will go a long way in ensuring they understand the different factors affecting growth of horticulture.

ACKNOWLEDGEMENT

First, I thank Almighty God for bringing me this far. I do also acknowledge the moral support from my husband Leonard Kigen and my sons Jayson and Ryan and finally my sincere gratitude to my Supervisor Dr.Maina for his constant support and guidance.

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ABBREVIATIONS AND ACRONYMS

FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GoK	Government of Kenya
HCDA	Horticultural Crops Development Authority
HRS	Household Responsibility Systems
IMF	International Monetary Fund
KNBS	Kenya National Bureau of Statistics
NSE	National Stock Exchange
SMEs	Small and Medium Enterprises
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development

DEFINITION OF TERMS

Cash flows: This refers to inflows and outflows of cash and cash equivalents (Ganesan, 2007)

Credit access: This is the ability of a firm to get loans or credit facilities from lenders (Shinozaki, 2012).

Firm growth: This refers to the increase in size of the firm in terms of production, sales turnover, revenue, profitability and such other parameters (Cooney & Malinen, 2004)

Horticulture: It is one of the agricultural sub-sectors that is involved in farming of perishable produce such as vegetables, fruits and flowers (Minot & Ngigi, 2004).

Liquidity: It is a measure of extent to which a firm has cash to meet immediate and short-term obligations (Chakraborty & Sudeshna, 2008).

Nakuru County: It is one of the 47 counties in the Republic of Kenya as provided by the Constitution of Kenya 2010 (Ministry of Devolution and Planning, 2013).

Working capital: This is financing a business requires for its day-to-day trading operations (Azhagaih & Radhika, 2012).

ABSTRACT

Agriculture as the mainstay of the Kenyan economy underscores the importance of the sub-sector to the country. Horticultural farming is arguably the second most important sub-sector in Kenyan agricultural sector. The sub-sector has been facing key challenges. Farming activities are more cost intensive compared to other forms of agribusiness. More so, ripples in the global market for horticultural produce have aggravated the situation. In respect to this, the study evaluated the financial factors influencing growth of horticultural sector in Nakuru County, Kenya. Of particular interest was the extent to which liquidity, credit access, working capital, and cash flows affected the growth of horticultural firms. The study reviewed theories of liquidity, adverse selection theory and organizational theory of growth. A cross-sectional survey research design was adopted. The study targeted the 300 accounts, finance, and management staff working with the registered horticultural farms in Nakuru County. The sample size constituted 98 respondents. The study employed structured questionnaires. The research instrument was pilot tested before its administration for data collection in the main study. The rationale behind pilot testing was to assess any potential weaknesses in the research instrument. The data collected were subjected to relevant processing and analysis whereby the Statistical Package for Social Sciences (SPSS) software was used to aid in data analysis. Descriptive statistics tools including mean, mode, standard deviation and variances were used. More so, inferential statistics in form of correlation and multiple regression analyses were employed. The research hypotheses were tested at 0.05 level of significance. The findings of the study were presented in form of statistical tables. It was found that the influence of financial factors under study on growth of horticultural firms was significant. Working capital had the greatest influence on growth of firms with a beta coefficient of 0.333 followed by credit access and cash flows with a beta coefficient of 0.323 and 0.140 respectively while liquidity was the least important financial factor with a beta co-efficient of 0.030. The study concluded that horticulture firms in Nakuru County highly invested in working capital and as such it influenced the firm's liquidity. It was inferred that horticulture firms were able to access short-term credit facilities. It was concluded that that the exchange rates affected horticulture firm's cash flows. The study recommended that horticulture firms should have adequate liquidity in that the firms would have sufficient funds to run the operations. The study further recommends that horticulture firms should source for funds from various sources and negotiate for credit terms from such lenders as commercial banks. It is recommended that horticulture firms should effectively manage working capital. In addition, the study recommended that horticultural firms ought to ensure good cash flow management.

CHAPTER ONE INTRODUCTION

1.1 Background of the Study

Horticultural farming falls under agribusiness in that it involves the production and sale of perishable agricultural produce such as fruits, vegetables, and flowers. Essentially, the aforementioned horticultural produces are a form of cash crop especially when farmed on a large scale. Diversified cash crop farming is 63 per cent and above more profitable than tea farming (Mwangi, Gicuru, Sibiko & Wanjiru, 2015). Diversified cash crop farming is exemplified by among others, horticultural farming. In Kenya, horticulture mainly constitutes fruits, cut flowers and vegetable production. It is an important foreign exchange earner whose contribution to the economy cannot be downplayed (Mutuku, Tschirley, & Michel, 2004).

Working capital management is very imperative since it influences the risk, profitability and value of a firm. Essentially, investment in working capital involves a trade off between risks and profitability. This is because investment decisions leading to increase in profitability are inclined towards risk and the reverse is true. In the same breadth, efficiency and effectiveness in management of working capital also enhances cash flow to the firms. This in turn increases the growth opportunities for the firms and return to the shareholders (Ganesan, 2007).

Traditionally, financial viability of firms was pegged on the firms' liquidity. Maintaining high liquidity was believed to negatively affect the profitability of a firm. The relationship between profitability and liquidity is very close. Foregoing either profitability or liquidity at the expense of the other is bound to occasion serious problems for the firm. This is due to the fact that the two are very important goals for any firm regardless of the sector. Whereas, profitability is a long term goal, liquidity is short term. As liquidity determines the survival of the firm, profitability influences the growth of the firm (Chowdhary & Amin, 2007).

1.1.1 Global Perspective of Horticultural Sector

According to Forest, Zhang and Donaldson (2008) in their study on the rural reforms in China small rural households were reinstated as the unit of production. The Household Responsibility Systems (HRS) started in 1978 when Deng Xiaoping gave

land use rights to rural households with new incentives and increase in grain prices which led to increased productivity and reduction in poverty levels. The HRS created some problems one being that the farmers could not use modern farming equipment which resulted in loss of economy of scale and that it made farmers more vulnerable to the risks and shocks associated with specialized commercial farming.

Individual farmers tend to be reluctant to adopt new technologies or crop varieties or to respond to market opportunity due to the high cost of obtaining accurate and timely market information, acquiring necessary skills and equipment needed for new commercial crops, and marketing the harvest to consumers. Horticulture is postulated to provide many developing countries with opportunities for export diversification, poverty alleviation and rural development (Muriithi, 2008). According to Minot and Ngigi (2007), there is a huge global market for horticultural produce and related products. The leading markets include such countries as the UK, France and the Netherlands.

The foregoing observation concurs with Mutuku et al.'s (2005) assertion that most of the developing countries export their horticultural produce to the European markets. Though the authors noted that the European market for horticultural produce has climaxed recently, dynamic across the world are generating concerns. One of the concerns is the saturation of the traditional European markets. It is asserted that most of the developing countries practicing horticultural farming export their produce to European countries where Netherlands is one of the most popular and favourite destinations (Mutuku et al., 2005).

According to Akhtar, Akmal, Shah, Niazi and Tahir (2013) horticulture in Pakistan is one of the fundamental sub-sectors that majorly contributes to the economy of the country. It is observed that the sub-sector contributed to about 12% of the gross domestic product in 2012. Horticultural products dominant are the fruits and vegetables, tangerines, mandarins, onion and Clem. Like in many developing countries, the horticultural sector is hampered by such issues as small holding, poor export infrastructure and lack of adequate processing facilities. The authors note that such bottlenecks have hindered the improvement of the sector and industry from local base to export base. Khan (2000) added that lack of marketing infrastructure hinder the exportability of the products. It is observed that increasing competitive advantage

of the horticultural export products and investing in research and development in order to produce quality marketable surplus would not only improve horticultural sector but also reduce the negative trade balance of Pakistan (Akhtar, Akmal, Shah, Niazi & Tahir, 2013).

It is noted that over 60% of Indian population depends on horticulture for survival. As such the horticultural sector in India has been on the rise since 1991 to 2014. More parcels of land have been put under different horticulture activities which, has led to increase in horticulture produce. Indeed, it is observed that production has increased to approximately 31,000 million tons in the year 2013/14. Particularly, it is observed that production of vegetables is the main activity contributing to about 59% of the total horticultural produce. Other horticulture products in the country include spices, aromatic, plantation crops, fruits and flowers. However, it is noted that the sector has been facing various challenges among them inadequate exportability of produce due to lack of good quality produce. In addition post-harvest management has also been a concern that has hindered price stabilization (Netherland Enterprise Agency, 2015).

1.1.2 Africa Perspective of Horticultural Sector

The Ghanaian horticultural sub-sector is mainly comprised of the fruit sector, vegetables and flowers and has registered progress over the past five years. It is noted that total exports for the sector increased to 70,000 tons in 2002 valued at US\$ 33.6million. The rise has been ascribed to among other factors fresh produce processing and fresh produce sales in both local and regional markets. The horticultural sector has seen the private sector driving most of the exports while the government's role is to support and co-ordinate investment in the horticultural industry. Remarkable developments in the sector in sea-freighting of produce such as pineapples and linking exporters under the Sea-Freight Pineapple Exporters of Ghana have been observed. It is also noted that the success of Ghanaian horticultural sector depends on the repositioning of the leading exports which are pineapples, chillies, Asian vegetables among others. This is through reviewing marketing strategies and integrating multiple products lines instead of relying on single product offering. In addition, it is noted that the venture into cut-flowers, melons, specialty vegetables present the sector with opportunities which can enhance its development in the country (Voisard & Jaeger, 2003).

In Uganda it is noted that floriculture products in the horticultural sector are much more important than fruits and vegetables. This is due to the returns the floriculture products fetch in the international market coupled with the conducive environment for the production of flowers. However, compared to countries like Zambia and Kenya, the performance of horticultural sector in Uganda in terms of exports has been low since the country relies on fresh produce exports such as bananas and peppers mainly to UK. The slow development of the horticultural exports has been associated limited comparative advantage for production of good yields and quality of many temperate vegetables. In addition, lack of competitively priced sea-freight means that can compete with the major supplies of tropical fruits, the horticultural sector in the country is only limited to tropical and sub-tropical fruits and vegetables that have smaller market opportunities in Europe. The floriculture and horticulture sector in the country are under professional associations such as Ugandan Flower Exporters Association (UFEA) and Ugandan National Vanilla Association (UNVA) that aid in reducing input prices and securing competitively freight and airport handling in addition to representing the interests of small-scale growers of horticultural products. The horticulture sector has had its constraints that include lack of technical knowledge on production, high costs of export, insufficient supply and mistrust between exporters and producers among others (Gabre-Madhin & De Vette, 2004).

The high value horticultural industry in Rwanda is at its infant stage. In 2005, it was noted that the sector registered less than US\$ 1million in exports. Some of the products are the fruits and vegetables which are non-high value horticulture. Despite production and export being significant, the returns are marginal. It is noted that limited investment and limited interest in the sector has resulted into underdevelopment of the sector. However, there have been strategies aimed to be implemented in order to boost horticulture development and exploit its full potential. These strategies include the expansion of floriculture producers and exporters, concentrating on sub-segments of the sector in order to enhance value addition and investor attraction among others. It is further observed that the development of horticulture sector from its infant stage will boost economic progress in the country (GoR, 2006).

According to Belwal and Chala (2008) floriculture industry particularly the cut-flower has registered remarkable success in Ethiopia. This is ascribed to wide range of opportunities that has transformed production of cut-flower which has made Ethiopia to be the principal exporter of the product in the world. Such factors as foreign investments, government support and formation of Horticulture Producers and Exporters Association (HPEA) have been a boost to the floriculture sector. It is however noted that the sector has had threats such as shortage of inputs, narrow product range and lack to adherence to international codes of practices that all have hindered the full development of the industry

It is asserted that there exists a number of factors that affect the productivity and profitability of vegetables production of Swaziland (Xaba & Masuku, 2013). Vegetables are part of horticulture hence their significance in the current study. The authors acknowledged that vegetables' farming contributes not only to the share of agriculture in the Swazi's economy, but is also likely to rival with other sectors where there exists fewer government regulations and economic restrictions. The country currently experiences a gap between the amount of vegetables produced and the ones demanded. The foregoing gap is filled through imports of additional vegetables from the neighbouring South Africa.

1.1.3 Kenya's Perspective of Horticultural Sector

Agriculture is the backbone of the Kenyan economy. It directly contributes to about a quarter of the country's Gross Domestic Product (GDP). Indeed, it accounts for about 65 per cent of Kenya's foreign exchange (HCDA, 2010). The results of the First Medium Term Plan (2008-2012) in the IMF Country Report No. 10/224 indicated that agriculture contributes 24% of the Gross Domestic Product (GDP) in Kenya; 75% of industrial raw materials and 60% of export earnings. It employs 3.8 million in farm, livestock production and fishing and 4.5 million in off-farm informal sector activities. The report shows there was an increase in production and export agricultural products. There was an average increase in production and export of agricultural products between 2002 and 2006 of 30%. The report notes that the agricultural sector faces challenges such as high cost of inputs, over-subdivision of land to uneconomic units, limited application of agricultural technology and innovation, weak farmer

institutions, poor livestock husbandry, limited extension services, over-dependence on rain-fed agriculture and inadequate credit facilities.

It is posited that the Kenya's agricultural sector is divided into four major sub-sectors which are food crops, industrial crops, livestock and fisheries, and horticulture (KNBS, 2009). Of interest to this study, is the latter type of farming. It is argued that cash crop farming, which encapsulates horticulture farming, is the primary occupation of majority of farmers in Kenya (Mwangi et al., 2015). According to Amde et al (2009) horticulture at 20 per cent is second to tea at 28 per cent in light of the extent to which it contributes to the total value of agricultural exports in Kenya. It is noted that the horticultural sub-sector in the country has in the recent past recorded tremendous export-driven growth. Its significance is underpinned by the fact that the sector employs close to 5 million Kenyans directly in production, processing and marketing of products related to horticulture (HCDA, 2010).

According to Mwangi et al (2015) horticultural sector is positively significant to wealth generation, poverty alleviation and promotion of gender equity particularly in the rural areas. In addition, the sector is said to be very fundamental to the national economy in that it has created employment opportunities to thousands of Kenyans. It has also contributed significantly to foreign exchange. It is further posited that the uptake of horticultural farming amongst the traditional cash crop farmers is likely to enhance income levels and income security. Mwangi et al documented the implication of shift of resources to horticulture on profitability of small-scale farmers in Gatanga District. Productivity and profitability of farms in this region was argued to be very crucial given that most of the farming is on small scale. The scholars noted that diversification to horticulture could possibly greatly enhance farm profitability amongst farmers who have hitherto been practicing traditional cash crop farming.

1.1.4 Horticultural Farming in Nakuru County

Agricultural products comprise food crops, industrial crops, and horticultural crops such as cut flowers, vegetables, fruits, nuts, herbs, and spices (FAO, 1997). It is added, that horticultural crops more often than not generate higher returns (and profitability) per hectare than staple foods (Minot & Ngigi, 2004). Nakuru County is one of the 47 Counties created by the 2010 Constitution. It lies within the Great Rift Valley and covers an area of 7,496.5 square kilometres. The County receives

sufficient annual rainfall averaging approximately 800mm. It is made up of 11 sub-Counties which are equivalent to constituencies. These include Nakuru Town East, Nakuru Town West, Rongai, Bahati, Subukia, Molo, Njoro, Gilgil, Naivasha, Kuresoi, North, and Kuresoi South. There is a lot of agriculture which is practiced in the County both for food and cash crops. Indeed, agriculture is the economic mainstay of the County followed closely by tourism (Kinambuga, 2010).

Horticultural farming alongside dairy farming is the most important agribusiness in the region. Some of the horticultural produce includes flowers, French beans, prizes and vegetables. Most of these produce particularly flowers and French beans are exported to European markets; the Netherlands being the leading market (GoK, 2013). Most of horticultural farming is practiced in Naivasha sub-County where the leading horticultural farms are located. The major flower farms in the County include Home grown and Oserian in Naivasha sub-County and Subati flower farm in Subukia sub-County (Ministry of Devolution and Planning, 2013).

1.2 Statement of the Problem

Agriculture as the mainstay of the Kenyan economy underscores the importance of the sub-sector to the country. Horticultural farming is arguably the second most important sub-sector in Kenyan agricultural sector in that it contributes 20% of the foreign earnings from the sector. There are many farmers who prefer horticultural farming to other forms of agribusiness due to its presumed profitability. However, the sub-sector has been facing key challenges. Farming activities are more cost intensive compared to other forms of agribusiness. More so, ripples in the global market for horticultural produce have aggravated the situation. The government being aware of the significance of the horticultural industry has allocated a lot of resources to the sector. During the 2015/16 annual budget, the sector was allocated Kshs. 564 million in order to enhance its activities. In spite of this, the sector, just like other agricultural areas, has failed to realize its vision.

Most horticultural farms and firms still complain of less funding and lack of marketing for other products. Farmers are not able to reap the expected benefits due to a number of reasons. In addition, the stringent conditions for quality standards have further made it more difficult for horticultural farmers. The foregoing is bound to

occasion financial challenges in that abiding with the set quality standards there is cost implication. The saturation of traditional global market for horticultural produce is also likely to affect the profitability of the sector. The implications of the foregoing challenge are far reaching in that millions of Kenyans depend directly and indirectly on the sub-sector for their livelihoods. More so, the country's economy is likely to be affected.

1.3 Objectives of the Study

The study was guided by both the general objective and specific objectives.

1.3.1 General Objective

The general objective of the study was to evaluate the financial factors influencing growth of horticultural firms in Nakuru County, Kenya

1.3.2 Specific Objectives

- i. To examine the influence of liquidity on growth of horticultural firms in Nakuru County
- ii. To determine the influence of credit access on growth of horticultural firms in Nakuru County
- iii. To determine the influence of working capital on growth of horticultural firms in Nakuru County
- iv. To examine the influence of cash flows on growth of horticultural firms in Nakuru County

1.4 Research Hypotheses

H₀₁: The influence of liquidity on growth of horticultural firms in Nakuru County is not significant.

H₀₂: The influence of credit access on growth of horticultural firms in Nakuru County is not significant.

H₀₃: The influence of working capital on growth of horticultural firms in Nakuru County is not significant.

H₀₄: The influence of cash flows on growth of horticultural firms in Nakuru County is not significant.

1.5 Scope of the Study

The study was conducted amongst horticultural firms in Nakuru County, Kenya. Nakuru County particularly Naivasha sub-county has many and renowned horticultural firms hence conducting the study in the county will be very relevant. The study was particularly interested in the views of the accounts, finance, and management staff of the aforementioned firms given that these persons were deemed to be the most privy with issues touching on profitability of horticultural firms. The study was guided by a set of four independent variables which included 01 liquidity, credit access, working capital, and cash flows. The dependent variable was growth of horticultural sector. The study was conducted over a period of about three months.

1.6 Significance of the Study

The findings of the study will inform the policy makers and other stakeholders on the best strategies that can be formulated and implemented in order to salvage the sub-sector. The recommendations suggested will aid in coming up with feasible policies of addressing the issues affecting the sub-sector. Secondly, scholars, researchers and academicians in the field of horticulture and finance will benefit from the findings of the study as a source of reference. The study will further benefit farm managers in that they will be able to understand better how they can enhance the growth of their respective horticultural firms. Ultimately the government is likely to benefit when the issue of growth of horticultural sector is addressed. This is premised on the fact that the sector contributes significantly to the national gross domestic product.

1.7 Limitations of the Study

The study faced limitations including respondents being skeptical to participate in the study. This was due to fear of victimization by their bosses for divulging certain information concerning their firms. To allay this fear, they were assured that their identity would remain anonymous and that the study was exclusively for academic purposes. Traversing the entire Nakuru County to the horticultural firms was time consuming. To counter this challenge, the researcher made prior appointments with key informants in the aforesaid firms in order to avoid making more than one trip to each of these firms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the theories, conceptual framework, and empirical studies relative to financial factors influencing growth of firms particularly in horticultural sector. A summary of the conceptual review is outlined. This is followed by a presentation of identified research gaps.

2.2 Theoretical Framework

A theoretical framework is comprised of the concepts and theories relevant to study variables. A theoretical framework is further defined as the structure that can hold or support a theory of a research study. The framework introduces and describes the theory that explains why the research problem under study exists (Swanson, 2013). In this study, theories and concepts relevant study variables are discussed and reviewed. The theories put into perspective are theories of liquidity, adverse selection theory and organizational theory of growth.

2.2.1 Theory of Liquidity

The theories of liquidity were advanced by Vayanos and Wang (2012). The theory emphasizes on illiquidity, that is, the lack of liquidity to underlying market imperfections. The theories put into consideration six main imperfections. These include participation costs, transaction costs, asymmetric information, imperfect competition, funding constraints, and search. The foregoing imperfections map into six different theories of illiquidity. Each imperfection is addressed from three perspectives. That is, how to measure illiquidity, how illiquidity relates to underlying market imperfections and other asset characteristics, and how illiquidity affects expected returns.

Participation costs imply that in the perfect market benchmark, all agents are present in the market throughout. It is exemplified that a seller can have immediate access to the entire population of buyers. However, it is argued that, in practice, agents do face costs of market participation, for instance, to monitor market movements and have ready access to a financial exchange. Transaction costs imply that agents typically pay costs when executing transactions. It is stated that transaction costs drive a wedge

between the buying and selling price of an asset. Transaction costs are said to occur in various forms which include brokerage commissions, exchange fees, transaction taxes, bid-ask spreads, and price impact (Vayanos & Wang, 2012).

Relative to asymmetric information, it is asserted that in the perfect-market benchmark, all agents have the same information about the payoff of the risky asset. However, this is only in theory since in practice, agents can have different information because they have access to various sources of information or have different abilities to process information from the same source. Imperfect competition implies that in the perfect-market benchmark, agents are competitive and have no effect on prices. Yet, it is postulated that in markets this is not the case. The reason is some agents are large relative to others in that they can influence prices either due to their sizes or because of their information advantage (Vayanos & Wang, 2012).

Funding constraints imply that, agents' portfolios often involve leverage. That is, they borrow cash to establish a long position in a risky asset, or borrow a risky asset to sell it short. It is stated that in the perfect-market benchmark, agents can borrow freely as long as they have enough resources to service the loan. However, there are various frictions that can limit agents' ability to borrow and fund their positions. As such, there is a constraint in that agents may fail to pledge some of their future income. Search, on the other hand, implies that in the perfect-market benchmark, the market is organized as a centralized exchange. Yet, many markets do have a more decentralized form or organization. It is exemplified that in over-the-counter markets, investors negotiate prices bilaterally with dealers. Therefore, locating suitable counter-parties in these markets can take time and as such involve search (Vayanos & Wang, 2012).

In the context of the present study, liquidity is argued to be one of the crucial financial factors that do influence growth of horticultural firms. Given that most of the horticultural produce is destined for export particularly to European markets, the various market imperfections are important to the sector. For example, there exist participation costs since the producers do not have immediate access to the entire population of buyers which means that they have to rely on agents. There are also transaction costs in the horticultural sector in form of brokerage commissions, exchange fees, transaction taxes, amongst others. Also horticultural firms with limited

finances are obliged to leverage; an aspect that borders on their liquidity (Vayanos & Wang, 2012).

2.2.2 Adverse Selection Theory

The theory of adverse selection of credit markets is attributed to Stiglitz and Weiss (1981). The theory assumes that lenders cannot distinguish between borrowers of different levels of risk, and that loan contracts are subject to limited liability. This is due to hidden information which implies that lenders do not have absolute knowledge of the borrower's capacity to service a certain amount of loan. It is on this premise that the theory posits that lending institutions demand for collateral to be put up as a mitigating measure against loan defaults.

This theory also holds that the interest rates charged on credit facilities may fail to raise enough to guarantee that all loan applicants secure credit particularly when loanable funds are scarce. The theory further states that borrowers possessing greater wealth to put up as collateral obtain cheaper credit, have incentives to work harder, and indeed may earn additional income eventually. Inequality in the distribution of assets that can be used as collateral denies many people and corporate from accessing sufficient credit facilities to run their operations (Ghosh, Mookherjee & Ray, 2000). The adverse selection theory works against such enterprising businesses as horticultural firms in that they are required to have sufficient collateral in order for them to access huge credit from either local or international lenders. This is against the acknowledgment that these firms are capital intensive and the degree of risk is also high since they deal with perishable produce.

2.2.3 Organizational Theory of Growth

The organizational theory of growth was pioneered by Naghavi and Ottaviano (2006). The theory puts into perspective the dynamic effects of the organizational choices of firms on innovation and growth. The theory is based on a growth model earlier developed by Grossman and Helpman (1991). The theory focuses on both static and dynamic implications of the fragmentation of production. The theory illustrates that in event that a firm decides to outsource; the static gains from specialized production may possibly be linked to relevant dynamic losses for consumers because of slower innovation.

More so, it is posited that outsourcing, particularly offshore outsourcing, may slow organizational growth. This is due to reduction in feedback. It is argued that firms are heterogeneous and as such, is important to include decisions passed by firms on their organizational form which should essentially tally with their individual level of productivity (Baldwin & Robert-Nicoud, 2006). According to Naghavi and Ottaviano (2007), as firms' composition moves towards off-shoring mode, labour that is released from research and development and increased average productivity of the remaining vertically integrated firms stimulate innovation and as such foster growth. This theory can be employed to explain growth of horticultural firms given that a number of them are multinational while almost all of them rely on export markets.

2.3 Conceptual Framework

A conceptual framework is a diagrammatic representation of the hypothesized relationship between study variables as outlined in Figure 2.1. As indicated liquidity, credit access, working capital and cash flows are the independent variables. The dependent variable is the growth of the horticultural sector while Agricultural Act 2012 is the intervening variable. It is held that the four independent variables related to the dependent variable. This implies that each of them influences the growth of horticultural sector in Nakuru County.

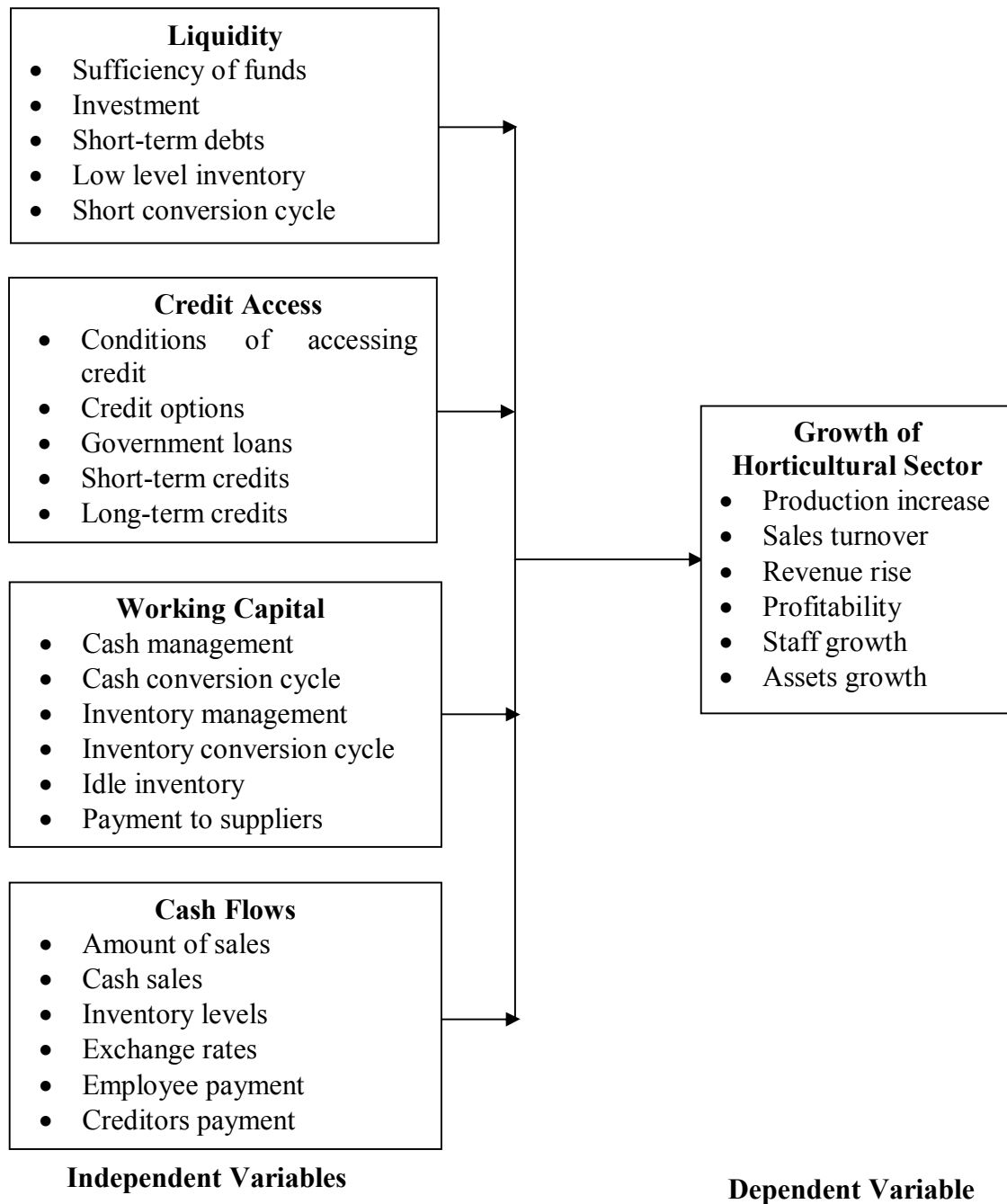


Figure 2. 1: Conceptual Framework for factors influencing growth of horticulture

2.4 Empirical Review

Empirical studies on liquidity, credit access, working capital, cash flows, and growth of firms particularly in the horticultural sector are reviewed in this section.

2.4.1 Liquidity and Growth of the Firm

According to Chakraborty and Sudeshna (2008) firm liquidity is vital for the firm to meet short-term obligations as they fall due. The authors warn against increasing profitability at the expense of liquidity since it exposes a firm to insolvency and bankruptcy. Lower investment in working capital according to the author is noted to result to poor liquidity while excess of working capital decreases profitability. It is therefore imperative that firms balance profitability and liquidity objectives through efficient working capital management as firms cannot survive on either. The foregoing was underscored by Hu and Michael (2006) who argued that liquidity is significant on performance of firms.

It is acknowledged that firms must trade-off between liquidity and profitability in order to prevent insolvency (Raheman & Nasr, 2007). Liquidity problems arise when working capital investments are not converted to cash at the same moment in time or with the same cash flow magnitude. Atrill (2006) underscored the essence of effectively managing working capital since it directly affects liquidity, profitability and growth of a firm. In addition, the author noted that the financial health of firms highly depend on working capital efficiency since high proportion of firm assets are employed in working capital. Eljelly (2004) is also of the opinion that firms must strike a balance between liquidity and profitability in conducting daily operations and to ensure that firms meet their obligations. Sibel and Engin (2012) on the other hand contend that liquidity positively influence performance of real estate investment trusts.

2.4.2 Credit Access and Growth of the Firm

It is ascertained that access to credit is a cardinal factor for accelerating business growth (Shinozaki, 2012). The author further noted that less credit constrained small and medium enterprises are able to increase their sales growth than their credit constrained counterparts. Aivazian, Mazumdar and Santor (2003) on the other hand established that small firms usually suffer in their ability to access credit where financial markets are underdeveloped, segmented or when subjected to arbitrary credit-allocation mechanisms. According to the authors, the World Bank interventions have provided Sri Lankan financial constrained small and medium firms with heavily subsidized loans.

According to Maertens (2008) credit constraint is a major issue to small holder farmers in Senegal. It is noted that such farmers are credit constrained in that they lack access to credit at all while others access but not to desired amounts necessary to purchase the required farm inputs and make necessary investments. As such, the author noted that credit constraints among smallholder farmers limit their agricultural production and productivity growth. The author therefore saw the need for smallholder farmers to engage into off-farm employment and income in order to alleviate credit and input constraints.

Sasu and Egyir (2010) established that constraints in accessing working capital are a major impediment to intensity of export success. It is further noted that lack of access to working capital adversely influence the intensity of export success of Ghanaian horticultural exporting firms. The author noted that stakeholders and government interventions are important in addressing lack of working capital in horticulture exporting firms.

Hatab and Hess (2013) note that small agricultural exporters suffer from small amounts of liquidity which make it difficult for the firms to cater for costs of exportation and exchange disparities. It is also noted that such firms lack adequate capital, experience high costs of credit access and export loans from financial institutions. In other circumstances, the author note that small agricultural firms do not access loans due to the reluctance of the banks to serve them. As such, the author not that it is important for firms to develop closer ties and collaborations with firms that supply them with quality agricultural products and also gather information about prices and regulations of foreign markets.

2.4.3 Working Capital and Growth of the Firm

Working capital is the most crucial factor for maintaining firm liquidity, survival, solvency and profitability of a firm (Mukhopadhyay, 2004). According to Raheman, Afza, Qayyum and Bodla (2010) such elements of working capital as cash, marketable securities and inventory management play a crucial role in performance of the firm. In the same vein, Ganesan (2007) report that efficiency in managing working

capital increases cash flow of firms which in turn increases the growth opportunities for firms and return to the shareholders. Indeed, Shah and Sana's (2006) noted managing working capital is important for generating return to shareholders and firm growth.

One of the fundamental elements considered important in operations of the firm is working capital (Azhagaih & Radhika, 2012). The authors ascertained that working capital is crucially important in enhancing growth of sales in firms. In addition, the authors argued that a target in sales growth can be achieved only if it is supported by adequate working capital. Vijayakumar and Venkatachalam (2003) on the other hand reiterated that keeping optimum level of working capital is a prerequisite for financial health of a firm. Moreover, Arora (2013) established that working capital, specifically net working capital influenced the growth rate of sales and profit of Hindustan Unilever Company of India. However, Thuvarakan (2013) noted that various components of working capital did not influence performance of manufacturing and construction companies listed in London stock exchange.

2.4.4 Cash Flows and Growth of the Firm

Effective cash flows and cash management practices are vital for organizations and businesses (Morin & Maux, 2011). Since exchange rates may affect the settlement of contracts and operating cash flows of the firm (Eun & Resnick, 2009), El-Masry (2006) noted it is important to safeguard and manage volatility of cash flows by using hedging and derivatives. Mathur (2012) was also of the opinion that hedging programs in firms are beneficial in reducing negative effects of foreign exchange rate changes on their cash flows and earnings. Brigham and Ehrhardt (2008) on the other hand reaffirms that managers of the firm can stabilize the firm's cash flows and enhance firm value.

It is suggested that to improve cash flows and business liquidity, small and medium enterprises needed to improve their cash management techniques such as cash flow forecasts, cash flow cycle, cash budgets and working capital management (Aren & Sibindi, 2014). The authors accentuated the importance of managing cash flow for survival and grow of the enterprises. Managing cash inflows and outflows has also been observed vital for small-sized firms in addressing dividend changes of averagely geared firms and low and high growth firms (Adelegan, 2003).

2.4.5 Firm Growth

It is suggested that a firm begins at infant stage, grows and matures and finally growth may decline (Gupta, Guha & Krishnaswami, 2013). Further it is suggested that firm growth may follow a linear and predictable path or it may be fairly opportunistic and unpredictable. Gupta et al (2013) noted that internal as well as external factors affect the growth of small and medium enterprises. Indeed, the author noted that internal factors such as innovativeness, operational, financial and technical capabilities and external factors such as political and economic environment influenced firm growth. Davidsson, Achtenhagen and Naldi (2006) suggested that the growth of a firm depends on the size, sectoral affiliation, location among other factors. The authors highlighted that availability of capital and management efficiency were among major factors that fuel growth of firms. In addition, the authors noted that young and small firms grow organically but as they expand, their larger share of growth is achieved through acquisitions.

According to UNCTAD (2012) horticulture is the largest category that accounts for more than 20% of the world agricultural exports. Goger, Hull, Barrientos, et al (2014) noted that the growth of the horticulture sector and exports in Africa has been apparent. This is ascribed to more integration of smallholder producers into horticulture global value chain. Indeed, Evers, Amoding, and Krishnan (2014) noted that Africa's horticultural earnings increased by over US\$8bn from 2001 to 2011. Goger et al (2014) further noted that the rapid growth in the Africa's horticulture sector and export has been fuelled by increased regional and global demand for high value horticulture products in the UK, Asia, Middle East and Sub-Saharan Africa.

Mwansakilwa, Tembo and Mugisha (2013) noted that despite a remarkable reduction in the growth of the horticultural sector in Zambia owing to the collapse of largest horticultural export company in 2004, the subsector has experienced a steady growth in terms production, earnings and workforce over a few years due to government's significant support, European investment bank and private investments. In addition, the author noted that the performance of the horticultural and other agricultural exports has been determined by the volume or growth of production domestically and also the quantity of exports from competing countries.

2.5 Summary of Reviewed Literature

It has been established that it is vital for a firm to preserve its liquidity in order to meet short-term obligations as they fall due. It is cautioned that increasing profitability at the expense of liquidity exposes a firm to insolvency and bankruptcy. It is concluded that firms ought to balance between profitability and liquidity objectives through efficient working capital management as firms cannot survive on either. Reviewed studies have revealed very high positive correlation between liquidity and profitability of the companies. It is acknowledged that firms must tradeoff between liquidity and profitability in order to prevent insolvency. It is further noted that liquidity problems have constrained even the access to credit from financial institutions.

It was ascertained that access to credit is a cardinal factor for accelerating business growth. It is argued that access to credit affects farm productivity since farmers facing binding capital constraints use lower levels of inputs in their production activities. It is argued that access to credit affects farm productivity since farmers facing binding capital constraints use lower levels of inputs in their production activities. Access to credit was noted not to change farmers' production decisions for market oriented farmers since the available amount of credit did not restrict productivity and farmers need no more credit to improve productivity. It was recommended that various stakeholders in the export department including the government should intervene in order to address the issue of working capital inaccessibility in order to enhance intensity of export success. It is asserted that a large proportion of Kenyan agribusiness SMEs rely more on self-financing due to the problems associated with accessing credit facilities.

Working capital is considered fundamental in the operations of a firm. It was ascertained that working capital is crucially important in enhancing growth of sales. It was argued that a target sales growth can be achieved only if supported by adequate working capital. It was argued that a target sales growth can be achieved only if supported by adequate working capital. It is admitted that working capital is the most crucial factor for maintaining liquidity, survival, solvency and profitability of a firm. It has been demonstrated that sales growth was negatively influenced by working

capital requirements. It is pointed out that working capital influences investment and financing decisions of a firm as it affects both liquidity and profitability.

Studies underscore the importance of developing good cash flow management practices in firms to prevent insolvency and business failures. Greater emphasis is put on the importance of good and effective cash flows and cash management practices for organizations and businesses. It is suggested that to improve cash flows and business liquidity, small and medium enterprises needed to improve their cash management techniques such as cash flow forecasts, cash flow cycle, cash budgets and working capital management. It is noted the horticultural firms hedged derivatives in order to cushion themselves against the fluctuations in cash flows.

It is suggested that a firm has a beginning, then grow and finally mature and declines. Further it is suggested that firm growth may follow a linear and predictable path or it may be fairly opportunistic and unpredictable. Further, it is suggested that firm growth may follow a linear and predictable path or it may be fairly opportunistic and unpredictable. It is noted that for firm to grow through sustained expansion, then it must satisfy growth requirements, that is, increase its sales, access additional resources, expands its knowledge base and management efficiency. It is documented that the growth of the horticultural industry has been aided by the government through provision of enabling legislation, intellectual property rights and functional quality control among other regulatory regimes.

2.6 Research Gaps

A study by Owiti (2014) focused on Kenya's sugar industry. The study noted that firms search for liquidity and operational efficiency through minimizing their investment in working capital. It was further observed that search for liquidity and operational efficiency through minimizing their investment in working capital. An earlier study (Malik & Athar, 2012) noted that liquidity problems have constrained even the access to credit from financial institutions. Waswa (2014) on the other hand linked dividend payout with liquidity. It was established that agricultural firms listed at NSE were able to pay out dividends to their shareholders because of their high liquidity. The studies reviewed fell short of elaborating the link between liquidity and firm's growth particularly in the horticultural sector.

Locally, Muli (2013) carried out a study on capital financing and growth of small and medium enterprises in the agribusiness sector. The study noted that a large proportion of Kenyan agribusiness SMEs rely more on self-financing due to the problems associated with accessing credit facilities. It was further noted that most of SMEs do not have adequate credit to meet their needs at different levels of growth. Muriithi et al (2012), on the other hand, lamented the lack of capital to finance the rising cost of labour and other firm inputs for smallholder horticulture farmers forced them to exit the business. Waswa (2014) underscored the essence of providing agricultural firms with working capital through credits in order to improve productivity when he looked into dividend payout by agricultural firm listed at NSE. The three authors, however, did not relate credit accessibility to growth of firms in the horticultural sector.

In Kenya, Wahogo (2014) determined the nexus between working capital management and financial performance of firms in the agricultural sector. The study particularly examined firms in the coffee industry. The study noted that firms that effectively used their working capital components were likely to gain higher performance. Wainaina (2010) while looking to establish the relationship between profitability and working capital was also of the opinion that firms ought to establish optimal level of working capital. More recently, Afande's (2015) study observed that working capital influences investment and financing decisions of a firm as it affects both liquidity and profitability. The studies reviewed did not focus on the horticultural sector. They also did not directly relate working capital to organization's growth.

A study was conducted by Nebart (2010). It was interested in foreign exchange risk management with a special focus on horticultural industry in Kenya. The study established that future cash flows of firms with international business operations can be severely affected in the event of unexpected fluctuations in forex rates. The study noted the horticultural firms hedged with derivatives in order to cushion themselves against the fluctuations in cash flows and volatility of their earnings in order to reduce risks and facilitate budgeting and control processes in the firm. Though the study focused on the horticultural sector, it failed to address the theme of cash flows in relation to growth of these firms. These research gaps on the subjects of liquidity, credit access, working capital, and cash flows are addressed in the present research study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology entails the steps taken to carry out a research study. It outlines the research design suitable for the study, target population, sampling procedure, research instrument, pilot testing, reliability, data collection procedure and how the collected data were processed and analyzed. It also states how the study findings were presented.

3.2 Research Design

Research design is the means to achieve the research objectives (Chandran, 2004). According to Creswell (2009) research design is the plan and structure of investigation so conceived as to obtain answers to research questions. On the other hand, Kothari, (2007) defines research design as the arrangement of conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. A good research design enables the study to be conducted effectively and successfully.

In this study a cross-sectional survey research design was adopted. This was founded on the basis that the study involved various horticultural firms in Nakuru County. More so, cross-sectional studies are carried out at a specific point in time or over a short period of time (Olsen & George, 2004); a fact that agreed with the present study which took approximately three months.

3.3 Population

According to Mugenda and Mugenda (2003) population refers to the entire group of individuals, events or objects having a common observable characteristic. On the other hand, accessible population is a subset of the target population from which the sample is derived. While the accounts, finance, and management staffs working with horticultural farms in Kenya registered with Horticultural Crop Development Authority constituted the target population, the accessible population comprised of 300 such staff working with the registered horticultural firms in Nakuru County. The

targeted employees were perceived to be conversant with issues touching on financial performance of their respective firms.

3.4 Sample Size and Sampling Technique

This part presents the sampling frame, how sample size was calculated, and the methods of obtaining the sampled respondents. A sampling frame is described as an exhaustive list of individuals from which a sample is derived. Therefore, the 300 accounts, finance and management staff working with the registered horticultural firms constituted the sampling frame. Table 3.1 outlines the sampling frame.

Table 3. 1:Sampling Frame

Name of the Firm	Targeted Employees
1. Bahati Spring Farm	12
2. Colour Crops Ltd	8
3. Datura E.A. Ltd	7
4. Gillan Nurseries	8
5. Hamer Kenya Ltd	13
6. Kandubu Blooms Ltd	10
7. Kenya Highland Nurseries	9
8. Keringet Flowers Ltd	9
9. Kijabe Limited	12
10. Lake Flowers Ltd	12
11. Longnot Horticulture Ltd	7
12. Myaflower (K) Ltd	8
13. Majili Bud Ltd	9
14. Nakita Kinale Flowers	9
15. Nini Limited	6
16. Njoro Gardens Ltd	11
17. Northlake Nurseries Ltd	9
18. Nordam Roses (K) Ltd	11
19. Oserian Development Company Ltd	17
20. Rift Flora Ltd	14
21. Robison Diesel	6
22. StokmanRozen Kenya Ltd	8
23. Sher Agencies Ltd	11
24. Sian Agriflora Ltd	16
25. Sulmac Company Ltd	13
26. Elsagro Limited	8
27. Musaka Farm Produce	8
28.Njoro Canning Factory	12
29. Subati Flower Farm	9
30.Home Grown Flowers	8
Total	300

Kombo and Tromp (2006) define a sample as a finite part of a statistical population whose properties are studied to gain information about the whole sample. A sample is a subset of the accessible population. The accessible population (300) was quite large and this necessitated sampling. To scientifically calculate the sample size, Nassiuma's (2009) formula was employed as shown below.

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

n = Sample size

N = population size

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

e = Error rate ($2\% \leq e \leq 5\%$)

Substituting these values in the equation, estimated sample size (n) was:

$$\begin{aligned} n &= \frac{300 (0.3)^2}{0.3^2 + (300-1)0.025^2} \\ n &= 97.52 \\ n &= 98 \text{ respondents} \end{aligned}$$

Therefore, the sample size constituted 98 respondents drawn from the 30 horticultural firms in Nakuru County. The study adopted stratified random sampling method to get the 98 sampled respondents from the accessible population. Stratified random sampling involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup making it possible to make reliable estimates for each stratum as well as for the population as a whole (Cooper & Schindler, 2003). The 30 registered horticultural farms in Nakuru County constituted 30 strata. Stratified sampling ensured that all the 30 firms were proportionately represented in the study. Further stratified random sampling was conducted within each firm in order to ensure equitable representation of accounts, finance, and management staff. The method hugely minimized sampling bias. Table 3.2 shows the sample distribution.

3.5 Data Collecting Instruments

A research instrument facilitates collection of data from the respondents. The present research employed structured questionnaires to collect primary data. This was based on the fact that questionnaires are the most appropriate tools for collecting data in survey studies and in the cases where the respondents are quite many (Kothari, 2008). The questionnaire facilitated collection of data on employee and firm backgrounds, and also on both independent and dependent variables.

3.6 Pilot Study

The research instrument was pilot tested before its administration for data collection in the main research study. The pilot testing involved administering the structured questionnaires on a few respondents working with horticultural firms in Nyandarua County. The participants in this study were 10 per cent (10 respondents) of the sample population (Kothari, 2004). The filled questionnaires underwent both reliability and validity tests.

3.6.1 Reliability Test of the Research Instrument

The rationale behind pilot testing was to assess any potential weaknesses in the research instrument. This was achieved through validity and reliability tests. To test for reliability, a research question must be answered by respondents the same way each time. The Cronbach alpha coefficient was employed to test the reliability of the research instrument. The findings of the reliability test are as shown in Table 3.3 indicated that questions on all variables captured in the questionnaires were reliable since they had alpha coefficients greater than 0.7.

Table 3. 2: Reliability Test Results

Variables	Test Items	Alpha Coefficients (α)
Liquidity	6	0.771
Credit Access	6	0.760
Working Capital	6	0.814
Cash Flows	6	0.803
Growth of Firm	6	0.751

3.6.2 Validity Test of the Research Instrument

Validity is defined as the degree to which a test measures what it is supposed to measure (Kimberlin & Winterstein, 2008). There are various forms of validity

including face validity, construct validity and content validity. However, in this study, the content validity of the questionnaire was determined through consultation with the assigned university supervisor.

3.7 Data Collection Procedure

Data collection was preceded by obtaining permission to do so from Jomo Kenyatta University of Agriculture and Technology and also seeking consent of the management of the firms from where data will be obtained. The questionnaires which were self-administered were issued to the respondents through their respective departments by the researcher in person.

3.8 Data Processing and Analysis

The data collected were subjected to relevant processing and analysis whereby the Statistical Package for Social Sciences (SPSS) software was used to aid in data analysis. Descriptive statistics which included measures of distribution including percentages, central tendencies such as mean, and variation in form of standard deviation were used. More so, inferential statistics in form of correlation and multiple regression analysis were employed. The following multiple regression model guided multiple regression analysis of the collected data.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y	Represents	Firm Growth
β_0	Represents	Constant
X_1	Represents	Liquidity
X_2	Represents	Credit Access
X_3	Represents	Working Capital
X_4	Represents	Cash Flows
ϵ	Represents	Error Term

$\beta_1, \beta_2, \beta_3, \beta_4$ = Régression Coefficients of the Independent Variables

The findings of the study were presented in form of statistical tables.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1 Introduction

The findings that emanated from the data analyzed are presented in this chapter. The chapter unfolds by first presenting background information of the respondents. The descriptive and inferential findings are then outlined. The related discussions in respect to the findings are also presented.

4.2 Response Rate

A total of 98 questionnaires were issued to the sampled respondents where 75 of them were filled and collected. This implied that response rate was 76.5 per cent. The response was deemed sufficient and acceptable for analysis. According to Nulty (2008) 70% is an acceptable or adequate response rate in survey studies.

4.3 Background Information

The background information outlined in this part relates to the respondents' gender, the department where the respondents work, work experience in horticultural firms and in the horticultural sector in general.

4.3.1 Distribution of Respondents by Gender

The sampled respondents provided information relating to their gender. The results of the analysis are indicated in Table 4.1.

Table 4. 1: Distribution of Respondents by Gender

	Frequency	Percentage
Male	47	62.7
Female	28	37.3
Total	75	100.0

The study established that 47 accounts, finance and management personnel of horticultural firms in Nakuru County which represented 62.7% of the sampled respondents were males. The rest (37.3%) were females. As such it can be argued that

the personnel in accounts, finance and management positions in the firms were dominated by males. Moreover, the two third gender rule was observed by the horticultural firms in their recruitment policy.

4.3.2 Distribution of Respondents by Department

The study wanted to establish the department to which the sampled respondents work in or were attached. The outcome of the analysis is shown in Table 4.2.

Table 4. 2: Distribution of Respondents by Department

	Frequency	Percentage
Accounts	36	48.0
Finance	25	33.3
Management	14	18.7
Total	75	100.0

The study noted that majority (48%) of the respondent were attached to accounts department. A total of 25 respondents that translated to 33.3% were attached to finance department. Those in management positions were 18.7% of the sampled population.

4.3.3 Distribution of Respondents by Work Experience with Horticultural Firms

The study ascertained the respondents' work experience with horticultural firms. Table 4.3 illustrates the findings.

Table 4. 3: Distribution of Respondents by Work Experience

	Frequency	Percentage
Less than 5 years	24	32.0
5 to 10 years	35	46.7
Above 10 years	16	21.3
Total	75	100.0

It was found that majority (46.7%) of the respondents had 5 to 10 years working experience with horticultural firms. Respondents that had less than 5 years working

experience were 32% while those that had worked for over 10 years with horticultural firms were 21.3%.

4.3.4 Distribution of Respondents by Work Experience with Current Firms

The study further established the period the respondents had worked with the present firm in Nakuru County. It is in Table 4.4 that the findings are displayed.

Table 4. 4: Distribution of Respondents by Work Experience with Current Firms

	Frequency	Percentage
Less than 1 years	22	29.3
1 to 5 years	32	42.7
More than 5 years	21	28.0
Total	75	100.0

The study ascertained that 42.7% of the respondents had worked for 1 to 5 years with the current horticultural firms. In addition, 29.3% had worked with the firms for less than a year while 28.0% of the respondents had worked for more than 5 years with their present firms in Nakuru County.

4.4 Descriptive Findings

The study requested respondents to give opinions in regard to liquidity, credit accessibility, working capital, cash flows and growth of the firms. The responses were on a scale of five points where 5, 4, 3, 2, and 1 represented strongly agree, agree, not sure, disagree, and strongly disagree respectively. Their responses were assessed and analyzed. In this section, the findings in respect to the aforementioned are presented.

The findings are presented in form of means and standard deviations.

4.4.1 Liquidity and Growth of Firm

The study assessed the views of the respondents concerning liquidity and growth of horticultural firms. The pertinent findings are illustrated in Table 4.5.

Table 4. 5: Descriptive Statistics for Liquidity

		n	Min	Max	Mean	Std. Dev
i.	There is always sufficient funds in our firm for operations	75	1	5	2.03	1.252
ii.	There is high investment in working capital	75	1	5	3.75	.773
iii.	Working capital influences our firm's liquidity	75	1	5	3.71	1.206
iv.	Short term debt are met on time	75	1	5	2.97	1.208
v.	Low level of inventory is maintained	75	1	5	2.79	1.407
vi.	The conversion cycle in our firm is short	75	1	5	2.88	1.252

The study noted that respondents agreed (mean \approx 4.00; std dev \approx 1.000) that there was high investment in working capital and that working capital influenced the firm's liquidity. Respondents disagreed (mean = 2.03; std dev = 1.252) that there were always sufficient funds in the firm for operations. It was unclear (mean = 2.97; std dev = 1.208) whether short term debts were met on time. In addition, respondents were indifferent (mean \approx 3.00; std dev $>$ 1.000) of the views that low level of inventory was maintained and that the conversion cycle in the firm was short. It was, therefore, noted that horticultural firms in Nakuru County invested heavily on working capital perhaps to ensure that the daily operations were run efficiently and cost-effectively.

4.4.2 Credit Access and Growth of Firm

The opinions of the respondents in relation to credit access and growth of horticultural firms in Nakuru County are outlined in Table 4.6.

Table 4. 6: Descriptive Statistics for Credit Access

		n	Min	Max	Mean	Std. Dev
i.	Access to credit facilities from lenders is easy	75	1	5	2.04	1.340
ii.	Commercial banks set out strict conditions on credit facilities	75	1	5	3.79	1.106
iii.	There are various options from which our firm can access credit facilities	75	1	5	3.35	1.214
iv.	Government loans are easily accessible	75	1	5	2.72	1.214
v.	Short-term credits are accessible	75	1	5	4.05	1.126
vi.	Long-term credits are accessible	75	1	5	3.13	1.178

The findings illustrated that respondents admitted (mean ≈ 4.00 ; std dev > 1.000) that commercial banks set out strict conditions on credit facilities and that short term credits were accessible. Respondents disagreed (mean = 2.04; std dev = 1.340) that access to credit facilities from lenders was easy. However, respondents were unsure (mean ≈ 3.00 ; std dev > 1.000) whether there were various options from which the firm could access credit facilities and whether government loans were easily accessible. In addition, respondents were non-committal (mean = 3.13; std dev = 1.178) regarding the views that long-term credits were accessible. On all issues touching on credit access, respondents held extreme opinions as reflected by the relatively large standard deviations (std dev > 1.000).

4.4.3 Working Capital and Growth of Firm

The study further sought the views of the respondents in respect to working capital in the horticultural firms they worked with in Nakuru County. The findings are shown in Table 4.7.

Table 4. 7: Descriptive Statistics for Working Capital

		n	Min	Max	Mean	Std. Dev
i.	Cash management is effective	75	1	5	3.16	1.480
ii.	Cash conversion cycle is relatively short	75	1	5	2.99	1.214
iii.	Inventory management is effective	75	1	5	3.88	.972
iv.	Inventory conversion cycle is relatively short	75	1	5	1.80	1.115
v.	Idle inventory is minimal	75	1	5	2.27	1.004
vi.	Suppliers are always paid in good time	75	1	5	2.49	1.155

The findings revealed that respondents concurred (mean = 3.88; std dev = 0.972) with the assertion that inventory management in horticultural firms was effective. It was, however, not clear (mean \approx 3.00; std dev > 1.000) whether cash management was effective and whether cash conversion cycle was relatively short. Respondents strongly disagreed (mean = 1.80; std dev = 1.115) that inventory conversion cycle was relatively short. Respondents further disagreed (mean \approx 2.00; std dev = 1.155) that idle inventory in the firm was minimal and that suppliers were always paid in good time.

4.4.4 Cash Flows and Growth of Firm

The study further sought to determine the extent to which the respondents agreed or disagreed with the statements provided in respect to cash flows in the firm. The findings are displayed in Table 4.8.

Table 4. 8: Descriptive Statistics for Cash Flows

		n	Min	Max	Mean	Std. Dev
i.	Substantive sales are made over a short period of time	75	1	5	3.45	1.200
ii.	Most of our firms' sales are in cash	75	1	5	2.80	1.294
iii.	Minimal inventory is always maintained	75	1	5	2.68	1.210
iv.	Exchange rates affect our firm's cash flows	75	1	5	4.15	.968
v.	Employees are always paid on time	75	1	5	3.03	1.345
vi.	Creditors are always paid on time	75	1	5	2.37	.997

It was noted that respondents agreed (mean = 4.15; std dev = 0.968) that exchange rates affected the firm's cash flows. It was however disagreed (mean = 2.37; std dev = 0.997) that creditors were always paid on time. Respondents were neutral (mean \approx 3.00; std dev $>$ 1.000) regarding the view that substantive sales were made over a short period of time and that most of the firm's sales were in cash. Respondents were also unsure (mean \approx 3.00; std dev $>$ 1.000) concerning the opinion that minimal inventory was always maintained and that employees were always paid on time.

4.4.5 Descriptive Findings for Growth of Firm

Lastly, the respondents were asked to indicate their level of agreement or disagreement regarding propositions floated to them. Table 4.9 illustrates the findings.

Table 4. 9: Descriptive Statistics for Growth of Firm

	n	Min	Max	Mean	Std. Dev
i. There has been increased production over time	75	1	5	3.67	1.178
ii. Sales turnover has always been increasing	75	1	5	3.87	.759
iii. Revenue has always been on the rise	75	1	5	3.71	.969
iv. Profitability has always been increasing over the past five years	75	1	4	2.07	1.308
v. Recruitment of staff has been on the rise and employee turnover is low	75	1	5	3.35	1.268
vi. The assets of our firm are on the rise	75	1	5	3.60	1.284

Respondents concurred (mean \approx 4.00; std dev \approx 1.000) that there has been increased production over time and that sales turnover has been on the rise. In addition, it was agreed (mean \approx 4.00; std dev \approx 1.000) that revenue has always been on the rise and that the assets of the firm were on the rise. It was disagreed (mean = 2.07; std dev = 1.308) that profitability has always been increasing over the past five years. It was unclear (mean = 3.35; std dev = 1.268) whether recruitment of staff had been on the rise and employee turnover was low.

4.5 Inferential Findings

Using correlation analysis, the study established the relationship between liquidity, credit access, working capital, cash flows and, growth of the firm. The established relationship was further explained.

4.5.1 Influence of Liquidity on Growth of the Firm

The relationship between liquidity and growth of the firm was determined. Table 4.10 shows the results of correlation analysis.

Table 4. 10: Correlation between Liquidity and Growth of Firm

		Growth of the Firm
Liquidity	Pearson Correlation	.360**
	Sig. (2-tailed)	.002
	N	75

** . Correlation is significant at the 0.01 level (2-tailed).

It was noted that there was a weak, positive but statistically significant relationship between liquidity and growth of the firm ($r = 0.360$; $p < 0.01$). Liquidity positively influenced growth of the horticultural firms. It could, therefore, be argued that horticultural firms in Nakuru County were liquid hence able to honour short-term and long-term obligations and furthermore fund the ongoing operations. It can also be argued that there were increases in the current assets over the current liabilities in the firm. Liquidity positively influenced growth of the firm. The findings partly agreed with a previous study by Waswa (2014). The study had noted that agricultural firms listed at NSE were able to pay out dividends to their shareholders because of their high liquidity. It is quite obvious that a firm which is paying out dividends is on a positive growth trajectory.

4.5.2 Influence of Credit Access on Growth of the Firm

The study determined how credit access influenced growth of the firm. In addition, the relationship between the two study variables was ascertained. Table 4.11 displays the results.

Table 4. 11: Correlation between Credit Access and growth of Firm

		Growth of the Firm
Credit Access	Pearson Correlation	.648**
	Sig. (2-tailed)	.000
	n	75

** . Correlation is significant at the 0.01 level (2-tailed).

The findings indicated that credit access and growth of horticulture firms had positive, moderately strong and statistically significant relationship ($r = 0.648$; $p < 0.05$). This meant that credit access largely influenced growth of the firms. The ability to access and procure credit from financial lenders enabled the firms to expand their production, fund assets and more so fund the operations of the firm and therefore not only ensure going concern but also enhance growth of the firm. The findings of this study reinforced earlier findings that there exists a relationship between credit access and growth of firms (Muli, 2013).

4.5.3 Influence of Working Capital on Growth of the Firm

The study further evaluated how working capital of the firm influenced their growth. The outcome of the analysis is shown in Table 4.12.

Table 4. 12: Correlation between Working Capital and Growth of Firm

		Growth of the Firm
Working Capital	Pearson Correlation	.667**
	Sig. (2-tailed)	.000
	n	75

** . Correlation is significant at the 0.01 level (2-tailed).

The study established that there existed a positive, moderately strong and statistically significant ($r = 0.667$; $p < 0.05$) relationship between working capital and growth of horticultural firms. Working capital significantly and largely influenced growth of the firm. As such it is argued that horticulture firms adequately invested in working capital in order to undertake growth activities such as expanding production and expanding workforce. As such working capital in the firms is fundamentally important in boosting their growth. There was, however, a point of departure between the findings of this study and the observations of Dutta (2000) and Chiou et al (2006).

These scholars had demonstrated and observed that gross working capital was negatively correlated with sales growth, and that sales growth was negatively influenced by working capital requirements.

4.5.4 Influence of Cash Flows on Growth of the Firm

In addition the study analyzed the relationship between cash flows and growth of horticulture firms in Nakuru County. The relevant findings are illustrated in Table 4.13.

Table 4. 13: Correlation between Cash flows and Growth of Firm

		Growth of the Firm
Cash flows	Pearson Correlation	.360**
	Sig. (2-tailed)	.001
	N	75

** . Correlation is significant at the 0.01 level (2-tailed).

It was noted that there existed a weak, positive and statistically significant ($r = 0.360$; $p < 0.05$) relationship between cash flows and growth of the firm at 0.01 significance level. Cash flows though marginally positively enhanced growth of the firm. The ability of the horticulture firms in Nakuru County to generate cash flows rather quick ensures that funds are available to fund other activities such as productivity that ensure growth. It can also be argued that horticulture firms generating adequate cash flows have better liquidity which is an important aspect for enhancing growth. The findings of this study supports earlier findings that cash flows influence liquidity (Galo et al., 2012) which as earlier observed in this study affects growth of firms.

4.5.5 Regression Analysis for Overall Model

The study evaluated how the financial factors under study (liquidity, credit access, working capital and cash flows) influenced growth of horticultural firms in Nakuru County. Using multiple regression analysis and Analysis of Variance (ANOVA), the combined effect of liquidity, credit access, working capital and cash flows on growth of the firms was established. The relevant results are indicated in Table 4.14, Table 4.15, and Table 4.16 respectively.

Table 4. 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.525	.498	.67974

a. Predictors: (Constant), Cash flows, Liquidity, Credit Access, Working Capital

As indicated in Table 4.14 the adjusted coefficient of determination ($r^2 = 0.498$) shows that 49.8% of growth of the horticultural firms in Nakuru County could be explained by liquidity, credit access, working capital and cash flows. The 50.2% of the growth of horticultural firms resulted from other factors such as industry specific factors, economic factors among others not investigated by the current study.

Table 4. 15: Analysis of Variance (ANOVA^b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	35.773	4	8.943	19.356	.000 ^a
Residual	32.343	70	.462		
Total	68.116	74			

a. Predictors: (Constant), Cash Flows, Liquidity, Credit Access, Working Capital

b. Dependent Variable: Growth of the Firm

According to the ANOVA results the association between the financial factors under study (Liquidity, Credit Access, Working capital and Cash flows) and growth of the firm was positive and significant as indicated by the F calculated ($F = 19.356$; $P < 0.05$).

Table 4.16: Significant Test Results for Overall Model

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.335	.366		3.651	.001
	Liquidity	.030	.112	.026	.266	.791
	Credit Access	.323	.106	.360	3.052	.003
	Working Capital	.333	.109	.377	3.057	.003
	Cash Flows	.140	.091	.137	1.547	.126

a. Dependent Variable: Growth of the Firm

Table 4.16 shows the overall significant test results for the hypothesized research model.

The interpretations of the findings indicated follow the following regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Therefore,

$$Y = 1.335 + 0.030X_1 + 0.323X_2 + 0.333X_3 + 0.140X_4$$

It was noted that the financial factors investigated in the study significantly influenced growth of the firm ($t = 3.651$; $p < 0.05$). It was further noted that the influence of liquidity ($t = 0.266$; $p > 0.05$) and cash flows ($t = 1.547$; $p > 0.05$) was not significant. The foregoing implies that the first (H_{01}) and fourth (H_{04}) null hypotheses failed to be rejected. However, credit access ($t = 3.052$; $p < 0.05$) and working capital ($t = 3.057$; $p < 0.05$) significantly influenced growth of the horticulture firms in Nakuru County. This implied that both the second (H_{02}) and third (H_{03}) null hypotheses were rejected. In addition, it is noted that holding the financial factors (liquidity, credit access, working capital and cash flows) constant, the growth of the firm would be 1.335. This would be as a result of other factors not investigated in the study. Out of the four factors investigated, credit access and working capital were the most important since to generate one unit of growth of the firms, 0.323 units of credit access and 0.333 units of working capital must be increased. Therefore, horticultural firms in Nakuru County ought to focus more on working capital and credit accessibility in their growth strategies and decisions.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter the summary of the research findings are outlined. The conclusions drawn from the findings are also covered. The recommendations relative to the findings of the study are also provided. Lastly, further areas of research are suggested.

5.2 Summary

The study finding are summarized and presented in this section. The summary captures both the descriptive and inferential findings.

5.2.1 Liquidity

It was believed that there was high investment in working capital and that working capital influenced the firm's liquidity. However, it was not clear whether there was always sufficient funds in the firm for operations and whether short term debts were met on time. Moreover, respondents were indifferent of the views that low level of inventory was maintained and that the conversion cycle in the firm was short. The correlation results indicated that relationship between liquidity and growth of the firm was weak, positive and statistically significant.

5.2.2 Credit Access

It was agreed that commercial banks set out strict conditions on credit facilities and that short term credits were accessible. Further, it was disagreed that access to credit facilities from lenders was easy. However, respondents were unsure of the view that there were various options from which the firm could access credit facilities. In addition, the views that government loans were easily accessible and that long-term credits were accessible were inconclusive. The findings indicated that credit access and growth of horticulture firms had positive, moderately strong and statistically significant relationship.

5.2.3 Working Capital

The findings indicated that inventory management in the horticulture firm was effective. It was however not clear whether cash management was effective and whether cash conversion cycle was relatively short. It was disagreed that idle inventory in the firm was minimal and that suppliers were always paid in good time. It was further strongly disagreed that inventory conversion cycle was relatively short. The relationship between working capital and growth of the firm was positive, moderately strong and statistically significant.

5.2.4 Cash Flows

It was admitted that exchange rates affected the firm's cash flows. Nevertheless, it was disagreed that creditors were always paid on time. Respondents were neutral regarding the view that substantive sales were made over a short period of time and that most of the firm's sales were in cash. Respondents were also unsure concerning the opinion that minimal inventory was always maintained and that employees were always paid on time. It was noted that there existed a weak, positive and statistically significant .

5.2.5 Growth of the Firm

The study ascertained that that there has been increased production over time and that sales turnover has been on the rise. In addition, it was agreed that revenue and assets of the firm were on the rise. It was however disagreed that profitability has always been increasing over the past five years. The view that recruitment of staff has been on the rise and employee turnover was low was inconclusive.

The multiple regression analysis revealed that substantial growth of the horticulture firms in Nakuru County was as a result of liquidity, credit access, working capital and cash flows. The analysis of variance indicated that the influence of Liquidity, Credit Access, Working capital and Cash flows on growth of the firm was positive and significant. Indeed, multiple regression results indicated that the aforementioned financial factors significantly influenced growth of the firm .It was noted that credit access and working capital were the most important financial factors that enhance growth of horticulture firms in Nakuru County.

5.3 Conclusions

The study concluded that horticulture firms in Nakuru County highly invested in working capital and as such it influenced the firm's liquidity. In addition, the study inferred that it was critical for horticulture firms to have adequate liquidity in order to ensure that the firms meet short term maturing obligations and more so enhance growth.

The study further inferred that horticulture firms were able to access short-term credit facilities. However, commercial banks set out strict conditions on the credit facilities. Access to credit was noted to largely enhance growth of the firms since credit or loans would finance assets, expand production and other operations aimed at enhancing growth. Access to credit was crucially important in improving horticulture firms.

A firm's working capital ensures that funds are available for the firm to run its daily operations and more so trade profitably. The study noted that inventory management in the horticulture firm was effective. However, idle inventory in the firm was not kept at minimum level and inventory conversion cycle was not short. As such it was concluded that working capital in the firms was not properly managed. However the study concluded that working capital positively and largely enhanced growth of the horticulture firms. It was therefore vital for the firms to focus on working capital management in order to further enhance growth.

It was further inferred that the exchange rates affected horticulture firm's cash flows. The study further deduced that creditors' management was not properly done and as such it can be argued to be detrimental to the firm since the firm may be locked out in accessing credit. Cash flow was equally important in ensuring growth of the firm. Therefore, quick generation of cash flows coupled with its proper management was argued to enhance growth.

5.4 Recommendations

The study made a number of recommendations aimed to address the problems identified by the study. The study recommended that horticulture firms should have adequate liquidity in that the firms would have sufficient funds to run the operations. In addition, the firm should be careful in maintaining the required level of liquidity so that required profitability is also achieved. A firm having too much idle current assets

would be at the expense of profitability. Therefore to ensure further growth, optimal liquidity should be maintained.

The study further recommends that horticulture firms should source for funds from various sources and negotiate for credit terms from such lenders as commercial banks. In addition, proper management of the funds borrowed is also recommended so as to ensure that funds are channeled to their intended purpose of ensuring growth. It is recommended that horticulture firms should adequately manage working capital that is cash, inventory, cash conversion cycle and the inventory conversion cycle in order to enhance profitability and consequently growth of the firms. Cash flows are vital for the firm's profitability and for funding activities that enhance growth. It is therefore imperative for horticulture firms to ensure good cash flow management.

5.5 Suggestions for Further Research

Drawing from the study findings and conclusions, the study suggests areas for further research in Kenya. These are; the effect of working capital management on growth of firms in the service sector; the influence of capital structure on growth of exporting horticultural firms in Kenya; an assessment of financial factors influencing profitability of listed agricultural firms in Kenya.

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APPENDIX I

LETTER OF INTRODUCTION

Letter to the Respondent

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: REQUEST FOR RESEARCH DATA

My name is Jackline Tonui, a student at Jomo Kenyatta University NAKURU Town campus. Currently am carrying out a study on **Financial factors affecting the growth of horticultural sector, a case study of Nakuru County**. You have been selected to take part in this study as a respondent. Kindly spare some time to answer the questions to the best of your knowledge. Further, you are assured that your identity will be treated with utmost confidentiality and the information will only be used for the purpose of the study.

Your assistance will be highly appreciated

Yours Faithfully

JacklineTonui.

APPENDIX II

RESEARCH QUESTIONNAIRE

This questionnaire is integral to a research study titled “Financial factors influencing growth of horticultural sector in Nakuru County, Kenya.” Kindly use any relevant mark to indicate your correct choice in the spaces provided.

Section A: Background Information

1. Kindly indicate your gender.
Male []
Female []
2. To which department are you attached?
Accounts []
Finance []
Management []
3. How long have you worked in the horticultural sector?
Less than 5 years []
5 – 10 years []
Above 10 year []
4. How long have you worked in the present firm?
Less than 1 years []
1 – 5 years []
More than5 year []

Use a scale of 1-5 where 5= Strongly Agree, 4= Agree 3=Not sure , 2= Disagree with 1= strongly Disagree.

Kindly indicate your level of agreement with the indicated statements.

Section B: Liquidity

	5	4	3	2	1
1. There is always sufficient funds in our firm for operations					
2. There is high investment in working capital.					
3. Working capital influences our firm's liquidity.					
4. Short term debts are met on time					
5. Low level of inventory is maintained.					
6. The conversion cycle in our firm is short					

Section C: Credit Access

	5	4	3	2	1
1. Access to credit facilities from lenders is easy					
2. Commercial banks set out strict conditions on credit facilities.					
3. There are various options from which our firm can access credit facilities.					
4. Government loans are easily accessible					
5. Short –term credits are accessible					
6. Long term credits are accessible					

Section D: Working Capital

	5	4	3	2	1
1. Cash management is effective					
2. Cash conversion cycle is relatively short.					
3. Inventory management is effective					
4. Inventory conversion cycle is relatively short.					
5. Idle inventory is minimal					
6. Suppliers are always paid in good time					

Section D: Cash Flows

	5	4	3	2	1
1. Substantive sales are made over a short period of time					
2. Most of our firm’s sales are in cash.					
3. Minimal inventory is always maintained					
4. Exchange rates affect our firm’s cash flows.					
5. Employees are always paid on time					
6. Creditors are always paid on time					

Section E: Growth of Firm

	5	4	3	2	1
1. There has been increased production over time					
2. Sales turnover has always been increasing					
3. Revenue has always been on the rise					

4. Profitability has always been increasing over the past five years					
5. Recruitment of staff has been on the rise and employee turnover is low					
6. The assets of our firm are on the rise.					

Thank you for finding time to respond to the questionnaire

APPENDIX III

LIST OF FIRMS REGISTERED WITH HORTICULTURAL CROP DEVELOPMENT AUTHORITY IN NAKURU COUNTY

1. Bahati Spring Farm
2. Colour Crops Ltd
3. Datura E.A. Ltd
4. Gillan Nurseries
5. Hamer Kenya Ltd
6. Kandubu Blooms Ltd
7. Kenya Highland Nurseries
8. Keringet Flowers Ltd
9. Kijabe Limited
10. Lake Flowers Ltd
11. Longnot Horticulture Ltd
12. Myaflower (K) Ltd
13. Majili Bud Ltd
14. NakitaKinale Flowers
15. Nini Limited
16. Njoro Gardens Ltd
17. Northlake Nurseries Ltd
18. Nordam Roses (K) Ltd
19. Oserian Development
Company Ltd
20. Rift Flora Ltd
21. Robison Diesel
22. StokmanRozen Kenya Ltd
23. Sher Agencies Ltd
24. Sian Agriflora Ltd
25. Sulmac Company Ltd
26. Elsagro Limited
27. Musaka Farm Produce
28. Njoro Canning Factory
29. Subati Flower Farm
30. Home Grown Flowers