

**DETERMINATION OF ENTREPRENEURIAL FACTORS THAT AFFECT
AGRICULTURE DEVELOPMENT: A CASE OF HORTICULTURE
FARMERS IN KAJIADO CENTRAL AND KAJIADO EAST SUB
COUNTIES**

BY

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DECLARATION

I declare that this research project report is my original work and has not been submitted to any other university for any other academic award.

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

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DEDICATION

I dedicate this study to my wife Priscah Rawua, and daughter Ninantei Lerindo, my parents Eliud Parsankul and Margaret Parsankul, my brothers and sister for their support and encouragement during the preparation of this research report.

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ACRONYMS AND ABBREVIATIONS

AFFA	- Agriculture Fisheries and Food Authority
HCDA	- Horticulture Crop Directorate
FAO	- Food and Agriculture Organization
ASDS	- Agricultural Sector Development Strategy
CoDF	- Coffee Development Fund
KSF	- Kenya Sugar Fund
ESoF	- Entrepreneurial Skills of Farmers
HRD	- Human Resource Development
ILRI	- International Livestock Research Institute

ABSTRACT

The study sought to determine entrepreneurial factors affecting agriculture development in Kajiado County. The study was conducted in three divisions of the county due to the vastness of the county and time and financial constraints. The Sub-Counties are Kajiado central and Kajiado east. The study specifically focuses on three variables that are; entrepreneurial Skills, Human resource development and nature of co-operative agriculture marketing and how these variables affect agriculture development in Kajiado County. The study employed descriptive research design and the target population for the study comprised of all the horticultural farmers in the two sub-counties. The two sub-counties have 278 registered households engaged in horticulture farming according to the Horticulture crop Development Authority. The sampling frame was obtained from HCDA list of registered horticulture farmers in the county. The study used simple random sampling method to select the sample. The sample size was 30 percent of the total population that is 84 respondents. Data was collected by use of questionnaires. Reliability and validity was undertaken through pre testing of questionnaires and conducting test - retest technique to check reliability and verification by peer review and supervisor review. Data analysis was done through inferential and descriptive statistics. The study established that the farmers used family as a source of labour in the horticulture farms. Further, the study found out that majority of the farmers had an average of 2-4 full time employees in their horticultural farms and an average of 5-7 part time employees in their horticultural farms respectively. The study further established that networking skills, strategy skills, management skills and professional skills were the entrepreneurial skills which were considered important by the respondents. Based on the findings of the study, it was observed that farming was not the respondent's primary source of income for the farmers and that horticulture farming was used to supplement income of the farmers. The study established that majority of the respondents have not registered with any horticultural oriented corporative society but appreciate the importance of being in one. The main benefit of belonging in a corporative society was access to market and sourcing of cheap inputs. The study concludes that horticulture farming was essential for development in the county hence it was important to build the skills of the farmers. It further concludes that the major source of labour was hired temporary labour and farmer networks. It was also noted that commercial banks provide majority of financing into the sector. The study recommends that county governments should emphasize on equipping the horticulture farmer with the requisite skills while building the capacities of the societies for them to access new markets and cheaper inputs finally the county governments should strengthen farmer network and work with this networks at policy development. The suggested area for further research was on how corporative societies could be used to access markets and source cheap inputs for its members. Further studies can also be done to determine how the current policy affects horticulture development and suggest changes and improvements to the current policy

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Agriculture was identified as a vital development tool for achieving the millennium Development Goal that calls for halving by 2015 the share of people suffering from extreme poverty and hunger (World development report, 2008). This report, states that three out of every four poor people in developing countries live in rural areas and most of them depend directly or indirectly on agriculture for their livelihoods.

In all regions, with rising land and water scarcity and the added pressures of a globalizing world, the future of agriculture is intrinsically tied to better management of natural resources. Better utilization of the factors of production would result in reduced wastage of resources and increased production hence the need for more focus in ways of incorporating professional management into agriculture.

Latin America agriculture development has had low growth rate for the past two decades because of different factors. Palo and Uusivuori (1999) report on Latin America states a number of reasons contribute to this, they include insufficient capacity to exploit opportunities for productive progress from current development levels, secondly, low profitability stemming from problematic access to financing, or the serious deterioration of research and technology transfer systems in many of the regions countries.

World development report, (2008) states that “Asia’s fast –growing economies remain home to over 600 million rural people living in extreme poverty, and despite massive rural – urban

migration rural poverty remain dominant for several more decades". World development report, (2008) puts India second worldwide in farm output. Agriculture and allied sectors like forestry and fisheries accounted for 16.6 percent of the GDP in 2009 and about 50 percent of the total workforce.

Similar to Latin America the economic contribution of agriculture to India's GDP is steadily declining with the country's broad – based economic growth. In spite of this India has shown a steady average nationwide annual increase in the kilograms produced per hectare for various agricultural items over the last 60 years World development report, (2008). These gains have come mainly from India's Green Revolution, (This refers to a series of research development, and technology transfer initiatives, occurring between the 1940s and the late 1970s that increased agriculture production around the world) improving road and power generation infrastructure, knowledge gains and reforms (World development report, 2008).

Despite this achievements, agriculture in India has the potential for major productivity and total output gains, because crop yields in India are still just 30 percent and 60 percent of the best sustainable crop yields in the farms of developed countries and as well as other developing countries, additionally losses after harvest due to poor infrastructure and unorganized retail cause India to experience some of the highest food losses in the world (World Bank, 2008)

According to World development report (2008), much of sub-Saharan Africa agriculture is a strong option for spurring growth, overcoming poverty and enhancing food security. Agricultural productivity growth is vital for stimulating growth in other parts of the economy. But accelerated growth requires a sharp productivity increase in small holder farming combined with more effective support to the millers coping as subsistence farmers many of them in remote areas.

African Development Bank (2010) noted that Africa spends between US\$ 15 and 20 billion on food imports annually in addition to the US\$ 20, billion it receives in food aid annually. These are vast amounts of money that the region can ill afford to externalize and which could be used to revitalize agriculture, particularly the low-input agriculture whose yields are limited and thus increase productivity.

In Kenya's vision 2030 under the economic pillar, agriculture is one of the priority sectors and policies have been developed to guide the agriculture sector (African Development Bank, 2010). African Development Bank (2010) further shows that growth of Kenya's economy is highly correlated to growth and development in agriculture. It goes further to state that, Agriculture, the mainstay of Kenya's economy, currently contributes 26 percent of the GDP directly and another 25 percent indirectly. The sector also accounts for 65 percent of Kenya's total exports and provides more than 18 percent of formal employment. More than 70 percent of informal employment is in the rural areas.

In the context entrepreneurship Jones and Sakong (1980) defines entrepreneurship as a force that mobilizes other resources to meet unmet market demands. Timmons, (1989) said that entrepreneurship was the ability to create and build something from practically nothing Stevenson, et al, (1985) noted that it is the process of creating value by pulling together a unique package of resources to exploit an opportunity.

The Kenyan Government has prioritized agriculture this is emphasized by its importance in the economic pillar in vision 2030. Kenya vision 2030 is the country's new development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrializing middle – income country providing a high quality life to all its citizens by the year 2030 (Kenya: Vision

2030 Launch, 2007). The vision is based on three “Pillars” The economic pillar, the social pillar, and the political pillar. Agriculture falls in the economic pillar, and the country aims at improving the sector through three specific strategies which is transforming key institutions in agriculture and livestock to promote household and private sector agricultural growth; increasing productivity of crops and livestock and introduction of new land use policies (Kenya: Vision 2030 Launch, 2007).

Wachira (2015) states that agriculture accounts for about a fifth of gross domestic product and three out of every four jobs in Kenya, the world’s largest black-tea exporter and supplier of a third of the fresh-cut flowers traded in Europe. He further notes that horticultural-export earnings soared 80 percent over four years to 90 billion shillings (\$980 million) in 2012 before falling to 83 billion shillings in 2013, even as the volume of sales increased, according to the Kenyan statistics bureau thus horticultural farming is very important for the economic development of a county. According to Kajiado County (2013) the county provides 9% of all the tomatoes production needs for Nairobi. This indicates the potential of horticulture farming in the county.

1.2 Statement of the Problem

The Government of Kenya has developed policy framework and implemented agricultural sectorial changes aimed at improving the agriculture sector in the country. These structural changes include the restructuring of agriculture sector institutions such as collapsing the small institutions such as Kenya Sugar Board, Coffee Board, Tea Board, Pyrethrum Board, Cotton and Coconut boards into one institution known as Agriculture Fisheries and Food Authority (AFFA), similarly with the agriculture research institutions which were collapsed into Kenya Agriculture Livestock Research Organization (KALRO). In the last 5 years, over 15 policies and 6 pieces of legislation have been developed and are being implemented. Among these are the Seed Policy, the Food Security and Nutrition Policy, the National Dairy Development Policy, the National

Agricultural Sector Extension Policy, the Cotton Act 2006 and the Cooperatives Policy Kenya (GOK, 2007).

Despite the well-intended structural and policy changes and improvements that have been put in place by the government, Kajiado agricultural sector has been on a declining trend as indicated in the National Drought Management Authority (2014) report which provides statistic that shows all agricultural activities practiced in the county have been on a decline. The study sought to determine the types of entrepreneurial skills required for success in agriculture development; to establish the relationship between human resource development and success in agricultural development and to examine the impact of Agricultural Co-operative Movement on agriculture development Kajiado County. These factors are significant issues, which needs to be addressed by all stakeholders in the agricultural socio-economic network (farmers' associations, research and advisory organizations, market and chain parties, governmental and social agencies) in order to motivate farmers in a more structured manner to increase the agricultural sector performance in the county.

1.3 Purpose of the study

The overall purpose of the study was to determine the effect of entrepreneurial factors that affect agriculture development in Kajiado County.

1.4 Objectives

In the light of the issues explicated in the above statement of the problem, the study specifically sought to explore and investigate the following:

1. To determine the types of entrepreneurial skills required for agriculture development in Kajiado County.

2. To establish effect of human resource development on agricultural development in Kajiado County.
3. To examine the impact of agricultural co-operative movement on agriculture development in Kajiado County.

1.5 Research Questions

1. What are types of entrepreneurial skills required in agriculture development in Kajiado County?
2. How does human resource development affect agricultural development in Kajiado County?
3. What impact does agricultural co-operative movement have on agriculture development in Kajiado County?

1.6 Significance of the Study

This study aimed at contributing information for enhanced attention to entrepreneurial factors affecting agriculture development in Kajiado County.

The findings of the study helped in improving coordination amongst diverse actors such as; development agencies who see agricultural entrepreneurship as an enormous employment potential; politicians who see it as the key strategy to prevent community unrest; farmers who see it as an instrument for improving farm earnings; and women who see it as an employment possibility near their homes which provides autonomy, independence and a reduced need for social support. To all these groups, however, agricultural entrepreneurship stands as a vehicle to improve the quality of life for individuals, families and communities and to sustain a healthy economy and environment.

Theoretically, the study adds to the existing knowledge on the role of entrepreneurial skills on agricultural development. It suggests direction useful to improve entrepreneurial skills and agricultural development.

1.7 Limitation of the study

The study was confined to two Sub-Counties of Kajiado County that is Kajiado Central and Kajiado East due to the vastness of the county; therefore, the findings of the present investigation had the limitation of wider generalization.

Secondly the time for data collection was very limited because of a busy work schedule. In order to manage this limitation the researcher sought permission from work to collect data.

There was also some difficulty in obtaining reliable information from the respondents due to fear that the information was going to be disclosed to third parties. The researcher assured the respondents that the data collected was purely for academic purposes and the collected information would remain confidential

1.8 Delimitation of the Study

The study targeted men and women who were 18 years old and above because they are expected to own land and have more information on farming in the area.

Only those questions that are approved by the supervisor were included in the survey instruments.

Further, test-retest reliability analysis was used to determine which questions on the role of entrepreneurship in agricultural development were utilized in the final document.

No distinction was made between small scale and large scale farmers operating in the area, as this is beyond the scope of the research question. Furthermore, the aim was to approach entrepreneurial factors affecting agriculture development as a whole, in so far as this is possible.

1.9 Assumption of the study

The study was based on the assumption that entrepreneurship had an impact on agriculture development and that the respondents were co-operative and gave voluntarily accurate information.

1.10 Definition of Significant Terms

Agriculture Development: Agricultural development means better utilization of the factors of production to reduce wastage of resources and increase productivity and profitability by incorporating professional management into agriculture.

Co-operative Agriculture Marketing: These are business organizations owned by farmers to collectively sell their products. These organizations (associations of producers) pool the produce of the small farmers having a small surplus to market and improve their bargaining power.

Entrepreneur: The entrepreneur is an innovative agent, who introduces something new into the economy – a new method of production or a new product, a new source of material or new markets. An entrepreneur's function is to revolutionize the pattern of production by exploiting an invention or introducing an untried technological possibility for producing a new commodity

Entrepreneurship: Entrepreneurship is connected to a person (the entrepreneur) and his or her activities and tasks; entrepreneurial tasks and activities are focused on starting, developing and continuing a profitable farming enterprise; the entrepreneur has to be able to find ways and means of creating and developing a profitable farming enterprise.

Entrepreneurial Skills: Entrepreneurial skills are such qualities that are required to recognise and exploit business opportunities and to put them into business practice

Farmer: This study defines farmers as those individuals occupied or employed on a part or full time basis in a range of activities which are primarily dependent on the farm and agriculture including the practice of cultivating the soil, growing crops and raising livestock or fish as their source of income or livelihood.

Farmers' entrepreneurship: Refers to that status of farmers' engaged in the organization and management of any farming enterprise while applying innovative skills to achieve sustainable expansion of farming operations and (periodically) shouldering a degree of state of uncertainty by undertaking calculated economic risk to maximize profit.

Human resource development (HRD) is a planned approach to learning aimed at change in knowledge, skills understanding, attitudes, values and the behavior of a learner or a group of learners.

1.11 Organization of the Study

This study encompasses five chapters. Chapter one looked at the background information to the study, the statement of the problem, the research objectives and questions, purpose and significance of the study, assumptions, limitations and delimitations of the study and definition of significant terms. Chapter two was a review of literature on agriculture development both locally and internationally. Literature on theoretical framework of the study, empirical review of the identified factors and conceptual framework was also sampled in this chapter. Chapter three focused on the methods of carrying out the research study. It covered the research design, target population, sample and sampling techniques, methods of data collection, research instruments, pilot testing, validity and reliability of the instruments, operational definition of variables, methods of data analysis and the ethical considerations of the research. Chapter four covered data

presentation, analysis and interpretation. Chapter five focused on the summary of findings, recommendation and lastly suggestions for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provided a presentation of the relevant literature, where the main variables relevant to answer the research question were further elaborated upon. It is an account what has been accomplished by previous scholars/researchers and what needs to be done. The trends created by predecessors pave the way for researchers to proceed further. The literature survey on different dimensions of topic under study was presented in the following heads: Theoretical framework then the literature review which looks at: the factors that hinder or stimulate the development of entrepreneurial skills, at the farm; determine the types of entrepreneurial skills required for success in agriculture development; the relationship between Human resource development and agricultural development; the impact of agricultural co-operative movement on agricultural development; review summary and lastly the conceptual framework.

2.2 Entrepreneurial skills required and success in the agriculture development.

The environment in which agricultural entrepreneurs operate is constantly changing and developing, as farmers adapt to the vagaries of the market, changing consumer habits, enhanced environmental regulations and so on. Running an enterprise successfully in this dynamic setting requires substantial tangible resources, such as physical or financial capital. Besides material assets, the success of the enterprise is also dependent on the more intangible resources embedded in the enterprise, such as entrepreneurial capital. It is recognized that in markets characterized by

dynamic change some entrepreneurs become alert and develop knowledge, making (deliberate) information investments that others do not (Busenitz et al., 2004).

Rudmann (2008) argued that instead of entrepreneurship the most essential challenge for farmers is to abandon the productivistic, or Fordist, model of production. Michael Winter (1997), for example, suggests that there is a need for farmers to unlearn productivist ways of thinking and acting, and instead to learn new skills and knowledge concerning the environmentally friendly and sustainable management of farms. Entrepreneurship is widely assumed to be a highly appropriate requirement in the current farm context. For example, Swedish economist Rolf Olsson made a sound prediction in 1988 when he wrote that, 'Managerial and entrepreneurial skills of the farmers are going to play increasingly important role in future developments in agriculture both at the farm level and in the agricultural sector as a whole'.

De Wolf & Schoorlemmer (2007) noted that it is a widely shared view among experts that the changing environment of farms at present necessitates that farmers must develop their farm business and business activities in economic terms, in order to survive and be successful. De Wolf & Schoorlemmer (2007) state that while professional/technical skills and managements skills are basic requirements for farmers, opportunity skills, strategic skills and cooperation/ networking skills can be viewed as proper entrepreneurial skills. Thus, studying entrepreneurial skills does not imply that other skills are assumed to be irrelevant or not important.

According to Rudmann (2008) theoretical elaboration, entrepreneurial skills are to be understood as higher level skills. They have to do with establishing, running and developing a business enterprise. In such business activities several types of lower level skills are needed, corresponding to the tasks of production, administration, marketing and so on. These may be referred to as

technical, professional or managerial skills. However, entrepreneurial skills may be conceptually differentiated from all these as meta-level skills that touch the whole process of initiation, steering and developing a business (Vesala, 2008). Rudmann(2008) suggests that it is warranted to view entrepreneurial skills as a hierarchical construct, where the pursuit of opportunities may be viewed as a key entrepreneurial skill that covers the core tasks in entrepreneurship, and represents the ‘top of the pyramid’ of the hierarchy of entrepreneurial skills.

2.3 Human resource development and success in agricultural development

Krisal (2013) noted that vocational programs can be secondary or post-secondary in nature, and can focus on direct training for producers or training for individuals who support farmers and contribute to the post - production process. With the current focus on strengthening agricultural value chains and investing in workforce development, systems are being re-evaluated and assessed for their relevance in a changing agricultural and development setting. Increased access to primary and secondary education, as well as connections to urbanizing populations and international markets, has shifted the employment demands in many sectors of agricultural production and post-production.

Karmayogi (2014) said that the contribution of education to development is a well-documented fact. For example, recent World Bank studies indicate that even 4 years of general primary education result in a 13% increase in the annual output of farmers. Development Education is that education which helps the student realize the enormous developmental potentials available to him and to the country and motivates him to endeavor to benefit by tapping some of these potentials. Agricultural Science belongs to the realm of pure knowledge extended to the field of agriculture. Modern farming technique belongs to the other end of this spectrum focusing on training in

practical skills. Literate farmers were found to be relatively and undeniably more efficient than those without literacy.

It is also proved by some previous studies that education have impact on the technology as well (Appleton and Balihuta, 1996). Abdullah (2009) reported that Harbison and Myers offered the first definition of HRD in 1964. This definition is very broad in perspective, as it elaborates HRD in relation to culture, the economy and social and political contexts rather than individuals and organizations. They defined HRD as: “The process of increasing the knowledge, the skills and the capacities of all the people in a society. In economic terms, it could be described as the accumulation of human capital and its effective investment in the development of an economy. In political terms, HRD prepares people for adult participation in the political process, particularly as citizens in a democracy. From the social and cultural points of view, the development of human resources helps people lead fuller and richer lives, less bound to tradition. In short, the processes of HRD unlock the door to modernization”. Adil et al (2005) quoted a definition by (FAO, 1996) as: Human resource development (HRD) is a planned approach to learning aimed at change in knowledge, skills understanding, attitudes, values and the behavior of a learner or a group of learners. It is often associated with technical goals aiming at the provision of a trained workforce to promote the knowledge and skills required by a society in order to acquire better prosperity. However, for some educators and development planners, HRD is an end in itself and its goal should be to realize human potential and developing individual self-reliance.

Education may boost the aptitude to acquire the information about new technology. It can be a substitute for or a complement to farm experience in farm output. Schooling enables farmers to do the job more efficiently. Jamison and Lau (1982) explored that external effects of education upon

farmer productivity may not be ostensible especially when the home is the unit of analysis, since less literate farmers may follow the agricultural practices of their more literate farmer neighbors. Gasson (1988) also suggested that ‘better-educated farmers are known to make greater use of information, advice and training, to participate more in government schemes and be more proactive in adjusting to change and planning for the future of the business’. Higher levels of education seem to be linked to the characteristics of both farmers and farms, including larger farms and more pluriactive businesses.

2.4 Agricultural Co-operative Movement and Agriculture development.

According to Cook et al. (2008), referring to the definition of collective entrepreneurship in order to describe innovative forms of agricultural cooperatives, a collective enterprise “is the process by which investors, customers or suppliers, plan, finance and establish a business form of collective action, which aims to win profits by more than one chain of production and marketing of food and beverages. This format is a historical trend of previous collective schemes”. This definition explains Alternative Collective Enterprises (ACE), which emerged through the efforts of people with long experience in organizing traditional agricultural cooperatives.

Delgado (1999) argues that smallholder agriculture is simply too important to employment, human welfare, and political stability in sub-Saharan Africa to be either ignored or treated as just another small adjusting sector of a market economy. Governments in less-developed countries have often promoted the use of cooperatives as organizations that could enhance the development of their small-scale farmers. Cooperative movements have endured and thrived in many African countries that are still developing. Most agricultural cooperatives in the developing countries focus more on product marketing and input supply as opposed to production (Ortmann and King, 2006). The

introduction of cooperatives to English speaking African countries was based on the experience gained by the British colonial administration in Asia. African farmers grew crops such as coffee, cocoa, cotton, peanuts and rice. The British colonial system marked the enactment of cooperative legislation, which also provided for the establishment of a cooperative union and the appointment of a Registrar of Cooperative Societies.

The cooperative movement in Kenya is one of the nationally organized institutions available for all cadres of persons. Its agenda is usually based on locally determined proposals whose aims are to empower citizens to realize their socio-cultural and economic capacities using locally available/generated resources. It is believed that people within a specific geographical or institutional locality have similar perceptions about how to resolve common issues in their lives. Often, cooperative societies bring together various classes of people regardless of their socio-economic status and their agenda would be one only-to share ideas, suggest and implement viable practices that are likely to bring development and uplift economic status of members. The various forums they organize for education purposes are often devoid of political, ideological or socio-cultural emotivism that may derail focus.

According to Kajiado County Integrated Development Plan (2013) The County is well endowed with co-operative societies which play varied and crucial roles. There are over 296 cooperative societies with more than 50% being dormant. Savings and credit cooperative societies (SACCOs) and housing and livestock marketing societies are the most common in the county. Others include dairy marketing, handicraft and multipurpose co-operative societies.

2.5 Theoretical Framework

This study is premised on the Arbitrageur theory which was fronted by Kirzner (1973). This theory is founded on the entrepreneur spotting and profiting from a situation of disequilibrium by improving on market inefficiencies or deficiencies. Kirzner (1973) suggests that the connection between entrepreneurship and economic growth is founded on the entrepreneur spotting and profiting from a situation of disequilibrium by improving on market inefficiencies or deficiencies. In an extension of Kirzner's model, Holcombe (1998) argues that these opportunities must come from somewhere, namely the insights of other entrepreneurs. Entrepreneurship creates changes, and changes lead to more opportunities for entrepreneurship. Thus, entrepreneurship generates more entrepreneurship.

2.6 Conceptual Framework

This conceptual framework sought to show how Agriculture Development (Dependent Variable) could be achieved through incorporating the various independent variables such as types of entrepreneurial skills; human resource development and agricultural marketing co-operative movement, and how these variables play different roles at enhancing agriculture development at the farm level.

The study sought to show how moderating factors such as Government policies and availability of extension services sought to level out the playing field and control the different aspects of the sector and how intervening variables such as nature of the market i.e. ease of access would also affect the profitability of the agricultural enterprises.

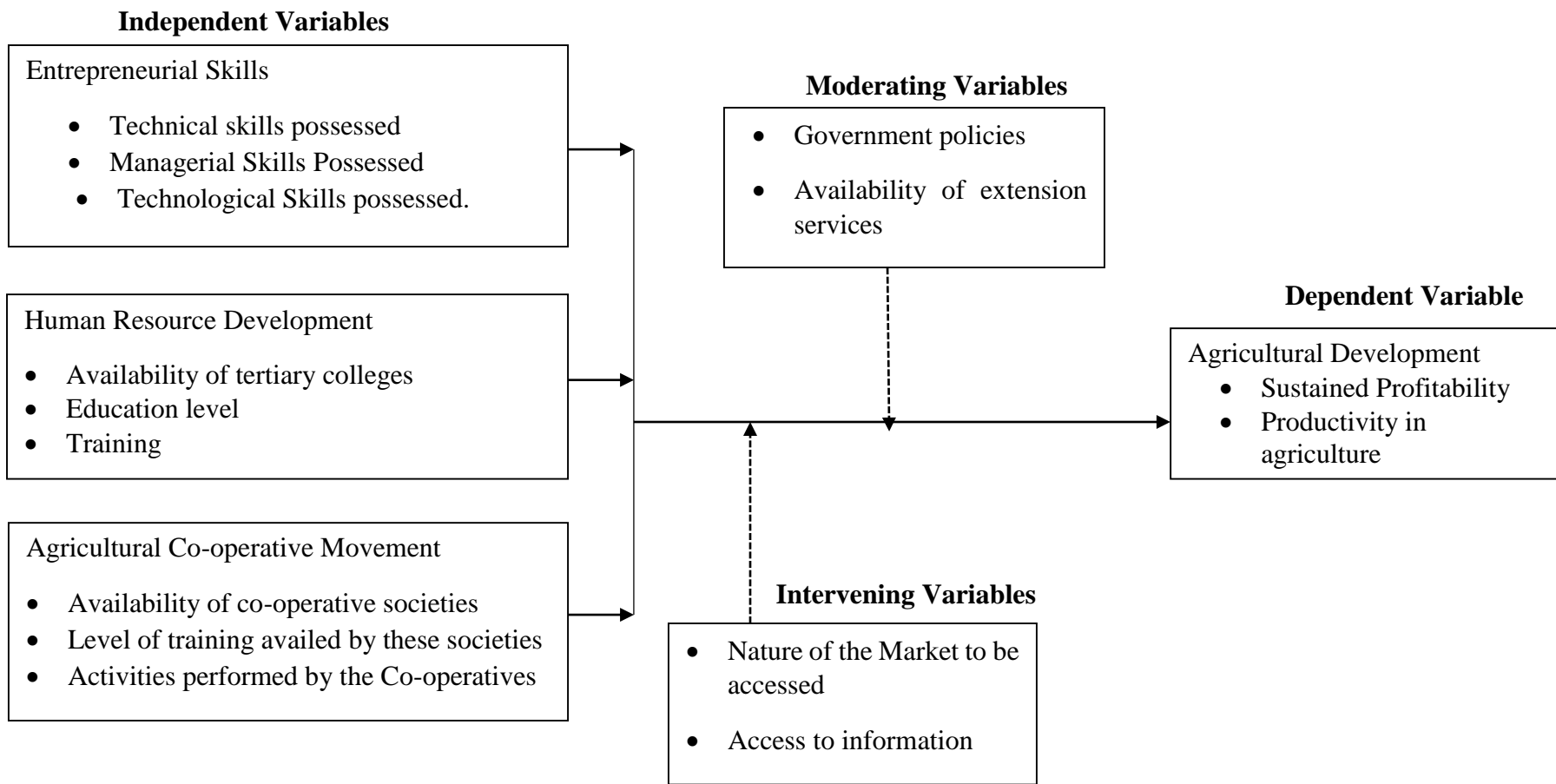


Figure 2.1: Conceptual framework of the study

2.7 Knowledge Gap

This review has described the entrepreneurial factors affecting agriculture development. It has identified the different entrepreneurial skills of the farmer entrepreneur. Moreover, it has also shown that there are abundance of literature on the relationship between human resources development and agriculture development and success factor attributed to human resources development. The review has also shown the importance of agriculture co-operative movement to agriculture development. However, the literature has not shown which of the skills is perceived as the most important in achieving success in an agricultural venture. The study does not indicate how human resource development is perceived and which modes of skill transfer could be used to transfer the identified skills to the farmer for sustained agriculture development. Finally the availability of agriculture co-operative movements in Kajiado County and its impact on agriculture developments generally still unknown.

2.8 Summary of Literature Review

This chapter looks at other scholarly and literature works from different renowned and distinguished scholars and authors on the agriculture development sector their effectiveness and its transformation over time. It started by highlighting the theoretical framework guiding the study followed by a detailed discussion on the role of entrepreneurial factors on agriculture development. The conceptual framework which is a diagrammatic representation of all the identified variables (role of entrepreneurial factors on agriculture development) and how they interact and link with each other. The final section of this chapter highlights the knowledge gaps that have been identified and what the study was aiming to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methods, tools and sources of research data collection, target groups and organizations where data was collected. It further discusses how the data was documented, processed and analyzed.

3.2 Research Design

According to Mouton (2001) designing a social research requires a researcher to map out strategies or a research design he or she was using as guiding tools for enabling him or her to get the most valid results for the problem being investigated. Berg (2001) defines a research design as a road map used for planning when undertaking a research study while Yin (1994:20) defines a research design as a logical plan for getting from here to there where 'here' is the initial set of questions to be answered by the participants and 'there' is some set of conclusions derived from the findings. Since the central aim was to provide an insight into the role of entrepreneurial skills on agricultural development; the study was based on descriptive survey. Creswell (1994) stated that descriptive method of research is to gather information about the present existing condition. The purpose of employing this method is to describe the nature of a situation, as it exists at the time of the study and to explore the cause/s of particular phenomena. This kind of research design was prompted by the desire to obtain first hand data from the respondents to formulate rational and sound conclusions and recommendations for the study. The data was cross-sectional. The mixed methods approach, involving both qualitative and quantitative methods was used.

3.3 Target Population

It is the total group of people or entities from which information is required (Tustin *et al.*, 2005). In this study the population of interest was the horticultural farmers in Kajiado County and specifically horticulture farmers in Isinya, Ngong and Central Divisions. According to the Horticulture Crop Development Authority (2013) there are 278 registered households engaged in horticulture in the three divisions.

3.4 Sample Size and sampling procedure

3.4.1 Sampling Frame

The sampling frame describes the list of all population units from which the sample was selected. In this study, the sampling frame was registered farmers by Horticulture Crop Directorate for the three divisions that were Isinya, Ngong and Central Divisions.

3.4.2 Sample Size

According to Mugenda and Mugenda (2003) a sample size of between 10 percent and 30 percent is a good representation of the target population. Based on the above, the research used a sample size of 30 percent which was sufficient. This results in a sample size of 84 Respondents. The study sought to apply the simple random sample method. Each individual was chosen randomly and entirely by chance, such that each individual has the same probability of being chosen at any stage during the sampling process, and each subset of k individuals has the same probability of being chosen for the sample as any other subset of k individuals (Yates *et al.* 2008).

Table 3.1: Summary of sampling frame

Population	Percentage	Sample size
278	30%	84

3.4.3 Sampling Technique

Since an updated sampling frame exists, the research used a simple random sample method to select the specific respondents who were included in the survey. The selection of the respondents was selected before the teams are sent to the field and was done by the researcher.

3.5 Methods of Data Collection

Since the study employed the mixed method approach, qualitative data was collected using questionnaires developed by the researcher as the main data collection instrument.

3.6 Pilot Testing, Validity and Reliability

The study put into consideration the validity and reliability of the research instruments and the results.

3.6.1 Pilot Test

According to Mugenda and Mugenda, (2003), a pilot test is a method that is used to test the design, methods and instruments before carrying out the research. It involves conducting an initial test the pretest sample is between 1% and 10% depending on the sample size. The pretest questionnaires were distributed equitably to the selected respondents in order to gather a cross-sectional feeling of respondents. This helped in ascertaining the robustness of the instrument. Out of the 278 targeted population, 5 respondents were used to pilot test the data collection tools. The questionnaires were distributed among the respondents within the selected farms under study.

3.6.2 Validity of the study

Validity is the degree to which results obtained from the analysis of data actually represents the actual reality. Cook and Campbell (1979) define it as the best available approximation to the truth or falsity of a given inference, proposition or conclusion. According to Mugenda and Mugenda

(1999), validity is the degree to which a test measures what it purports to measure. It enables the researcher to remove irrelevant, biased and ambiguous questions hence promoting validity.

Validity of instruments refers to the accuracy, clarity, soundness, suitability, meaningfulness or technical soundness of the research instrument. Validity was achieved through pilot study where the irrelevant items were removed. Secondly, the instrument was given to a peer for review and comments, and lastly the supervisor for further review and technical input.

3.6.3 Reliability of the study

Orodho (2004) describes reliability as the degree to which empirical indicators are consistent in two or more trials in an attempt to measure the theoretical concept. The researcher used test-retest method to obtain reliability of the measuring instrument. This technique involved administering the same instruments twice in a span of two weeks to the same group of subjects. Scores from both testing periods were then correlated. Reliability co-efficient was computed by use of Pearson correlation coefficient (r) as follow:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where:

$\sum X$ =the sum of scores in x distribution

$\sum Y$ = the sum of scores in y distribution

Σ = symbol of summation

ΣX^2 = the sum of squared scores in x distribution

ΣY^2 = the sum of squared scores in y distribution

ΣXY = the sum of products of paired x and y scores

N = the total number of subjects.

When the value of r is equal to +1.00, the two sets are in perfect agreement and is -1.00 when they are in perfect disagreement. A correlation co-efficient (r), of about 0.75 is considered to be high enough to judge the reliability of the instruments (Orodho, 2004). A correlation coefficient of 0.72 was established indicating the degree of reliability was high.

3.7 Data Analysis Techniques

Data analysis involves the reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. The analysis type was descriptive through count. The statistical package which was used for analyses of the data was the Statistical Analysis System V8 (SAS). The Statistical SPSS package was used for the analysis of graphs. The statistical method which was used to analyze the data was the Chi-Square test for independence. The Chi-Square test for independence was used to test for association. Cross tabulation was also done to show the distribution of respondents.

3.8 Ethical Considerations

Prior to embarking on the study, the researcher sought permission from the concerned institutions. The questionnaire, which is the main instruments for data collection, was approved by the supervisor before being used in the research. The participants were informed of the purpose of study and be assured of confidentiality.

3.9 Operational Definition of Variables

A variable is an empirical property that can take two or more values. It is any property that can change, either in quantity or quality.

A dependent variable is a variable whose outcome depends on the manipulation of the independent variables. In this study the dependent variable is agriculture development in Kajiado County. Independent variable on the other hand is a variable that is manipulated to cause changes in the dependent variable. In this study the independent variables include; the types of entrepreneurial skills required; human resource development and the impact of agricultural co-operative movement. Moderating variables behaves like the independent variable in that it has a significant contributory or contingent effect on the relationship between the dependent and the independent variable. In this study the moderating variables are government policies. Intervening variable is a variable that might affect the relationship of the dependent and independent variables but it is difficult to measure or to see the nature of their influence. In this study the intervening variable was nature of market to be accessed.

An operational definition describes how the variables are measured and defined within the study. It is a description of a variable, term or object in terms of the specific process or set of validation tests used to determine its presence and quantity. It is generally designed to model a conceptual definition. Table 3.2 is a summary of the operational definition of variables in the study showing the indicators, measure of indicators, measurement scale, tools and type of analysis. Nominal scales were used to investigate the various variables in the study.

RESEARCH OBJECTIVES	VARIABLE	TYPE OF VARIABLE	INDICATORS	MEASURES OF INDICATORS	DATA COLLECTION METHOD	LEVEL OF SCALE	TYPES OF ANALYSIS	LEVEL OF ANALYSIS
To determine the types of entrepreneurial skills required for success in agriculture development in Kajiado County.	Entrepreneurial Skills	Independent Variable	Technical skills	Technical skills possessed	Questionnaire	Ordinal	Descriptive statistics	Proportions
			Managerial Skills	Managerial Skills Possessed				
			Extension services	Availability of extension services				
To establish the relationship between Human resource development and success in agricultural development, in Kajiado County.	Human resource development	Independent Variable	Tertiary colleges	Availability of Tertiary colleges	Questionnaire	Ordinal	Descriptive statistics	Proportions
			Education level	Education level Attained				
			Training institutions	Training institutions available				
To examine the impact of agricultural co-operative movement on agriculture development in Kajiado county.	Co-operative agricultural marketing	Independent variable	Co-operative societies	Availability of co-operative societies	Questionnaire	Ordinal	Descriptive statistics	Proportions
			Training availed	Type of training availed by these societies				
			Activities performed by the co-operatives	Type of activities performed by the co-operatives				

Table 3. 2Summary of Operational Definition of Variable

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

4.1 Introduction

This chapter focuses on the data analysis, interpretation and presentation of the findings. The main purpose of this research was to examine the role of entrepreneurial skills on agricultural development in order to achieve agriculture development through sustained profitability with special focus on Kajiado County. The study sought to establish types of entrepreneurial skills required for success in the agriculture development, the relationship between Human resource development and success in agricultural development and the impact of Agricultural Co-operative Movement on agriculture development in Kajiado County. The researcher made use of frequency tables, percentages, mean and standard deviation to present data.

4.2 Questionnaire Return Rate

The study sampled 84 respondents from the target population of 278 registered households engaged in horticulture in collecting data with regard to the study objectives. The questionnaire return rate results are shown in Table 4.1.

Table 4.1 Questionnaire Return Rate

	Frequency	Percentage
Response	54	64.0
Non-response	30	36.0
Total	84	100.0

From the study, 54 out of 84 target respondents filled in and returned the questionnaire to a percentage of 64%. This response rate was good, representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent. This commendable response rate can be attributed to the data collection procedure, where the researcher administered questionnaires and waited for respondents to fill in, while respondents left with questionnaires were reminded to fill in the questionnaires through frequent phone calls and picked the questionnaires once fully filled. Any clarifications sought by the respondents were addressed without delay. The questionnaires that were not returned were due to respondents not being available to fill them on time and after persistent follow-ups, there was no positive feedback from them. The response rate here demonstrated the willingness of the respondents to participate in the study.

4.3 Demographic Characteristics of the Respondents

4.3.1 Respondents Gender

The study targeted the horticultural farmers in Kajiado County and specifically horticulture farmers in Isinya, Ngong and Central Divisions. Demographic characteristics of these respondents were investigated in the first section of the questionnaire.

Table 4.2 Respondents Gender

Gender	Frequency	Percentage
Male	34	63.0
Female	20	37.0
Total`	54	100.0

From the findings illustrated in table above, the majority of the respondents (63%) were male while 37% were female. This illustrates that there is gender disparity as majority of the respondents were male.

4.3.2 Respondents Age

The study investigated the age brackets within which that the horticulture farmers in Isinya, Ngong and Central Divisions were. Table 4.3 shows the summary of the findings.

Table 4.3 Respondents Age

Years	Frequency	Percentage
20 – 30	4	7.4
31 – 40	11	20.4
41 – 50	23	42.6
51 – 60	12	22.2
Above 60	4	7.4
Total	54	100.0

From the study (42.2%) of the horticulture farmers were aged 41-50 years, (22.2%) aged between 51-60 years, (20.4%) aged 31-40 years and (7.4%) were 20-30 years and over 60 years respectively. This indicated that majority of the respondents were between 41 and 50 years.

4.3.3 Motivation to get into agriculture farming

The study also sought to find out what motivated the respondents to get to horticulture farmers in Isinya, Ngong and Central Divisions. Table 4.3 shows the summary of the findings.

Table 4.4 Motivation to get into agriculture farming

Motivation	Frequency	Percentage
-------------------	------------------	-------------------

Family venture	17	31.5
Demand for product	16	29.6
Training/Education	6	11.1
Availability of credit	15	27.8
Total`	54	100.0

From the study, most (31.5%) of the horticulture farmers were motivated to get in to horticulture farming by family venture, 29.6% were motivated by the demand for product and 27.8% were motivated by the availability of credit while 11.1% were motivated by training/education.

4.3.4 Challenges in Agriculture Venture

The study further sought to find out the challenges faced by horticulture farmers in Isinya, Ngong and Central Divisions in their agricultural venture. Table 4.5 shows the summary of the findings.

Table 4.5 Challenges in Agriculture Venture

Challenges	Frequency	Percentage
Availability of credit	5	9.3
Availability of training	11	20.4
Market availability	30	55.5
Availability of extension services	5	9.3
Others	3	5.5
Total`	54	100.0

From the above table, majority (55.5%) of the horticulture farmers in Isinya, Ngong and Central Divisions indicated that they faced the challenge of market availability, 20.4% indicated availability of training and 9.3% indicated availability of credit and availability of extension

services while 5.5% faced other challenges. Access to market seems to be a big concern for majority of the horticulture farmers in the county.

4.3.5 Use of family labour in the horticulture farms

The study sought to find out whether the horticulture farmers in Isinya, Ngong and Central Divisions used family labour in the horticulture farms. Table 4.6 shows the summary of the findings.

Table 4.6 Use of family labour in the horticulture farms

Use of labour	Frequency	Percentage
Yes	37	68.5
No	17	31.5
Total`	54	100.0

From the study findings, (68.5%) of the respondents indicated that they used family as a source of labour in the horticulture farms while (31.5%) indicated that they did not use family as a source of labour in the horticulture farms. Family labour seems to contribute a significant portion of labour to the horticulture farms.

4.3.6 Number of Full Time Employees

The study sought to establish the average number of full time employees in the horticultural farms. Table 4.7 shows the summary of the findings.

Table 4.7 Number of Full Time Employees

Number of employees	Frequency	Percentage
Less than 2	14	26
2 – 4	36	67
5 – 7	3	6
More than 7	1	1
Total`	54	100.0

From the study findings, majority 67% of the respondents indicated that they had an average of 2-4 full time employees in their horticultural farms, 26% indicated that they had less than 2 full time employees while 6% and 1% indicated that they had an average of 5-7 and more than 7 full time employees respectively.

4.3.7 Number of part-time Employees

The study sought to establish the average number of part time employees in the horticultural farms.

Table 4.8 shows the summary of the findings.

Table 4.8: Number of part-time employees

Number of employees	Frequency	Percentage
Less than 5	14	26
5 – 7	32	60
7 – 10	7	13
More than 10	1	1
Total`	54	100.0

From the study findings, majority 60% of the respondents indicated that they had an average of 5-7 part time employees in their horticultural farms, 26% indicated that they had less than 5 part time

employees while 13% and 1% indicated that they had an average of 7-10 and more than 10 part time employees respectively. This indicates that majority of the labour available to the farms was temporary and this could be as a result of dependency on rain fed agriculture which is seasonal or lack of more permanent labour.

4.3.8 Capital Access for the Venture

The study sought to establish how the horticultural farmer's accessed capital for their venture.

Table 4.9 shows the summary of the findings.

Table 4.9 Capital Access for the Venture

Access to capital	Frequency	Percentage
Family	2	3.7
Banks	21	38.9
Government lending institutions	16	29.6
Personal savings	15	27.8
Total	54	100.0

From the study findings, most 38.9% of the respondents indicated that they accessed capital for their venture from banks, 29.6% from Government lending institutions and 27.8% from personal savings while 3.7% indicated that they accessed capital for their venture from the family.

Commercial banks were found to be an important source of capital for horticulture farming.

4.3.9 Ownership/Organization

The study sought to establish the ownership / organization of the horticulture farms in Isinya, Ngong and Central Divisions. Table 4.10 shows the summary of the findings.

Table 4.10: Ownership

Ownership	Frequency	Percentage
Family business	2	3.7
Sole trader	26	48.1
Partnership	16	29.6
Management team	10	18.8
Total`	54	100.0

From the study findings, 48.1% of the respondents indicated that their horticultural venture operates as a sole trade, 29.6% was a partnership and 18.8% indicated that their horticultural venture was a management team while 3.7% operated as a family business.

4.3.10: Farm Holding Descriptions

The study sought to establish the description of the horticulture farms in Isinya, Ngong and Central Divisions. Table 4.11 shows the summary of the findings.

Table 4.11: Farm Holding Descriptions

Farm description	Frequency	Percentage
Small (Less than 2.5Ha)	35	64.8
Medium (More than 2.5Ha and Less Than 5Ha)	13	24.1
Large (More than 5Ha)	6	11.1
Total`	54	100.0

From the study findings, majority (64.8%) of the respondents indicated that their venture was small, 24.1% indicated that their venture was medium and 11.1% indicated that their venture was large.

4.4 Source of Information

4.4.1 Information Regarding Planning & Marketing Activities

The study requested respondent to indicate their level of agreement with the statements relating to planning and marketing activities. The responses were rated on a five point Likert scale indicating to what extent respondents agree to the statements, where: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree and 5-strongly agree. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.12: Information Regarding Planning & Marketing Activities

MARKETING ACTIVITIES	MEAN	STD. DEVIATION
It is important to use a formal business plan for a farm	4.65	0.482
It is important to use a formal marketing plan for a farm	4.44	0.524

From the study findings in Table 4.12, majority of the respondents strongly agreed that it was important to use a formal business plan for a farm and that it was important to use a formal marketing plan for a farm as indicated by the mean scores of 4.6 and 4.44 respectively. The low standard deviation variation indicates that the respondents were in agreement with the statements.

4.4.2 Information Regarding Own Experience of support, advice or information

The study requested respondent to indicate their level of agreement with the statements relating to information regarding own experience of support, advice or information. The responses were rated on a five point Likert scale indicating to what extent respondents agree to the statements, where: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree and 5-strongly agree. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.13: Information Regarding Own Experience of support, advice or information

Experience	Mean	Std. Deviation
Farmers' networks are useful to me	4.11	0.851
Professional associations are useful to me	3.23	1.193
Professional services (e.g. banks) are useful to me	3.21	1.133
Support groups (e.g. trade union) are useful to me	2.92	1.315
Family and friends are useful to me for advice and support	3.26	1.055
Customers are useful to me for advice and support	4.45	0.862
Suppliers are useful to me for advice and support	3.89	1.01
The internet is useful to me for business purposes	2.92	1.315

From the study findings in Table 4.7, majority of the respondents strongly agreed that customers were useful to them for advice and support; the internet is useful to them for business purposes and farmers' networks were useful to them as indicated by the mean scores of 4.45, 4.26 and 4.11 respectively. On the other hand, most of the respondents agreed that suppliers were useful to them for advice and support, family and friends were useful to them for advice and support, professional associations were useful to them and professional services (e.g. banks) were useful to the farmers as indicated by the mean scores of 3.89, 3.26, 3.23 and 3.21 respectively.

4.5 Variables

4.5.1 Possession of a business plan

The study sought to establish whether the farmers had business plans for their farm business. Table 4.14 shows the summary of the findings.

Table 4.14: Possession of a business plan

Possession of a business plan	Frequency	Percentage
Yes	19	35.2
No	35	64.8
Total`	54	100.0

From the study findings, majority 64.8% of the respondents indicated that they did not have a business plan for their farm business with only 35.2% of the respondents who had business plan for their farm business. The study further found out that majority 81.5% of the farmers contracted someone to write a business plan for them while only 18.5% wrote the business plans on their own. The findings indicated that although many of the farms realize the importance of business and marketing plans but they do not have them at their farms.

4.5.2 Marketing Plan for the Farm Business

The study sought to establish whether the farmers had marketing plans for their farm business. Table 4.15 shows the summary of the findings.

Table 4.15: Marketing Plan for the Farm Business

Marketing plan	Frequency	Percentage
Yes	3	6
No	51	94
Total`	54	100.0

From the study findings, majority 94% of the respondents indicated that they did not have a marketing plan for their farm business while 6% of the respondents indicating that they have marketing plan for their farm business. The study further found out that majority 85% of the

farmers contracted someone to write a marketing plan for them while only 15% wrote the marketing plans on their own.

4.5.3 Entrepreneurial Skills

The study requested the respondent to rank the following entrepreneurial skills in order of importance. The responses were rated on a five point Likert scale indicating the level of importance of each entrepreneurial skills, where: 1- very little importance, 2- little importance, 3- neutral, 4- great importance and 5- very great importance. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.16: Entrepreneurial Skills

ENTREPRENEURIAL SKILLS	MEAN	STD. DEVIATION
Professional Skills (Technical Skills, Production Skills)	4.11	0.851
Management Skills (Financial Management administrative skills)	4.21	1.133
Opportunity Skills (Recognizing and realizing business Opportunities)	3.92	1.315
Strategy Skills (Developing and evaluating a business strategy)	4.32	1.055
Co-operation / networking skills (Networking And Utilizing Contacts)	4.45	0.862

From the study findings in Table 4.16, majority of the respondents indicated that co-operation / networking skills (networking and utilizing contacts); strategy skills (developing and evaluating a business strategy); management skills (financial management administrative skills) and professional skills (technical skills, production skills) as the entrepreneurial skills which were

importance to a very great extent as indicated by the mean scores of 4.45, 4.32, 4.21 and 4.11 respectively. On the other hand, opportunity skills (recognizing and realizing business opportunities) were ranked as of great important to the farmers as indicated by the mean score of 3.92. According to the study, co-operation / networking skills (networking and utilizing contacts) was considered as the most important skill a horticulture farmer should have followed by strategy skills (developing and evaluating a business strategy).

4.5.4 Training in agricultural development

The study sought to establish whether the farmers had been trained on the following areas of agricultural development. Table 4.17 shows the summary of the findings.

Table 4.17: Training in agricultural development

TRAINING IN AGRICULTURAL DEVELOPMENT	YES	NO
Professional Skills (Technical Skills, Production Skills)	64	36
Management Skills (Financial Management administrative skills)	22	78
Opportunity Skills (Recognizing and realizing business Opportunities)	9	91
Strategy Skills (Developing and evaluating a business strategy)	55	45
Co-operation / networking skills (networking and utilizing contacts)	68	32

From the study findings in Table 4.17, majority (68%) of the respondents indicated that they had been trained on co-operation / networking skills (networking and utilizing contacts) and 64% had been trained on professional skills (technical skills, production skills) while 55% had been trained on strategy skills (developing and evaluating a business strategy). From the data above many of

the respondents were trained in professional and networking skills. These skills were obtained from agriculture training centers and through observation of other successful farmers.

4.5.5 Training providers

The study requested the respondent to rank the providers of trainings in order of importance. The responses were rated on a five point Likert scale indicating the level of importance, where: 1- very little importance, 2- little importance, 3- neutral, 4- great importance and 5- very great importance. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.18: Training providers

TRAINING PROVIDERS	MEAN	STD. DEVIATION
Government Extension Officers	3.56	1.002
Agriculture Training Institutions	4.13	1.49
Observation other successful farmers	4.11	0.583
Product Companies	3.50	1.238

From the study findings in Table 4.18, majority of the respondents indicated that agriculture training institutions and observation of other successful farmers were importance to a very great extent in providing trainings as indicated by the mean scores of 4.13 and 4.11 respectively. Government Extension Officers and Product companies only marginally provided training to the farmers. This indicates that there is need to encourage government extension officers to offer more training to the farmers.

4.5.6 Level of education needed to be successful in agriculture

The study sought to establish the perception of the respondents on the level of education that one needs to be successful in agriculture. Table 4.19 shows the summary of the findings.

Table 4.19: Level of education needed to be successful in agriculture

Education Level	Frequency	Percentage
Primary	17	31.5
Secondary	22	40.7
Tertiary	15	27.8
Total	54	100.0

From the study findings, 40.7% of the respondents indicated that one needed secondary school education be successful in agriculture, 31.5% indicated primary school level of education while 27.8% indicated that one needed tertiary level of education be successful in agriculture. The research indicates that with secondary education the farmer is more likely to be successful in the horticulture venture.

4.5.7 Information Technology to Access Agricultural Information

The study sought to establish whether the farmers used information technology to access agricultural information on the following. Table 4.21 shows the summary of the findings.

Table 4.20: Information Technology to Access Agricultural Information

Information Technology	Frequency	Percentage
Product Marketing	48.2	26
Input sourcing	22.2	12
Crop Husbandry	29.6	16
Total	54	100.0

From the study findings, 48.2% of the respondents indicated that they used information technology to access agricultural information on how to market their produce, 22.2% on input sourcing while

29.6% of the farmers used information technology to access agricultural information on crop husbandry. This indicated the enormous potential information technology could be used to increase access to information.

4.5.8 Membership to Horticulture Co-operative Society

This section sought to determine if the respondents belong to any corporative society. This is aimed at determining the level of awareness of the benefits of being in a corporative.

Table 4.21: Membership to Horticulture Co-operative Society

Membership to Co-operative Society	Frequency	Percentage
Yes	12	22.2
No	42	77.8
Total	54	100.0

From the data above 77.8% of the respondents do not belong to any horticulture Co-operative societies while 22.2% belong to a co-operative society. This indicates very low membership to horticulture related corporative societies in the three divisions.

4.5.9 Important functions of a horticultural corporative society

This section sought to determine if the respondents knew what they wanted to gain from the co-operative society.

Table 4.22: Important functions of a horticultural corporative society

Important functions	Frequency	Percentage
Product Marketing	30	55.6
Input sourcing	15	27.8

Crop Husbandry	9	16.6
Other (Specify)	0	0
Total	54	100.0

Product marketing was ranked as the single most important function of a horticultural corporative society with a 55.6% ranking this was followed by Input sourcing for the society members with 27.8% and finally provision of Crop Husbandry with 16.6%. This indicates that marketing of the crops is perceived as the single important function of a corporative society.

4.5.10Necessity of a cooperative society

This study sought to determine whether the corporative societies were necessary. The findings are stipulated in the table below.

Table 4.23: Necessity of a cooperative society

Necessity of a cooperative society	Frequency	Percentage
Yes	3	6
No	51	94
Total	54	100.0

From the study findings, 94% of the respondents indicated that corporative societies were necessary while 6% were of contrary opinion. Kategile and Mubi (1992) in a report presented to ILRI there has been a rapid growth in registration of corporative societies attributed to the land ownership in Kajiado county.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The study aimed at examining the role of entrepreneurial skills on agricultural development in order to achieve sustained profitability with special focus on Kajiado County. This chapter therefore highlights the research outcomes under various headings that includes summary of major findings, conclusions drawn and recommendations derived from the study. The findings and conclusions are drawn in line with the specific objectives of the study. Finally suggestions for further research were indicated.

5.2. Summary of findings

5.2.1 The human resource development and success in agricultural development

The study established that the farmers used family as a source of labour in the horticulture farms and horticulture farming was not their primary source of income. Further, the study found out that majority of the farmers had an average of 2-4 full time employees in their horticultural farms and an average of 5-7 part time employees in their horticultural farms and that majority of the labour was sourced from part time workers. The study further found out that the farmers accessed capital for their venture from commercial banks and that their horticultural venture was operated as a sole trade. The study found out that the respondents agreed that a formal business and marketing plan was necessary for success in the agricultural venture. Finally the respondents ranked customers as the most useful in provision of advice and support, this was followed by the internet which was

useful to them for marketing, production (Crop husbandry) and research information and lastly farmers' networks were useful to the farmers for access to markets and sourcing cheap inputs. The study also found out that success in agriculture depended on the level of education of the respondent with secondary education being identified as the level needed for success in agriculture.

5.2.2 The types of entrepreneurial skills required for success in agriculture development

The study established that that co-operation / networking skills (networking and utilizing contacts); strategy skills (developing and evaluating a business strategy); management skills (financial management administrative skills) and professional skills (technical skills, production skills) were the entrepreneurial skills which were of great importance to the respondents. Further, agriculture training institutions and observation of other successful farmers were the main sources for skill acquisition for the respondents.

5.2.3 The impact of Agricultural Co-operative Movement on agriculture development

The study established that the respondents did not belong to any horticulture corporative society. The respondents also indicated that product marketing was the most important function of corporative societies followed with sourcing for inputs and finally provision of services and information on crop husbandry. Finally the respondents indicated that they believed that corporative societies were necessary.

5.3 Discussion of the Findings

While trying to determine the skills which are perceived as essential for the horticulture farmers in the county the study established that co-operation / networking skills (networking and utilizing contacts); strategy skills (developing and evaluating a business strategy); management skills (financial management administrative skills) and professional skills (technical skills, production

skills) were the entrepreneurial skills which were considered as important for success in the venture. De Wolf and Schoorlemmer (2007) state that while professional/technical skills and managements skills are basic requirements for farmers, opportunity skills, strategic skills and cooperation/ networking skills can be viewed as proper entrepreneurial skills that should be incorporated into the farming venture. Thus, studying entrepreneurial skills does not imply that other skills are assumed to be irrelevant or not important.

Human resources development was determined to be a great success factor in attaining sustained agriculture development. The study found out that the respondents believed that attaining secondary education would result in more success in the agriculture venture and this supports the World Bank studies that indicate that even 4 years of general primary education results in a 13% increase in the annual output of farmers. Development education is that education which helps the student realize the enormous developmental potentials available to him and to the country and motivates him to endeavor to benefit by tapping some of these potentials. Gasson (1988) also suggests that better-educated farmers are known to make greater use of information, advice and training, to participate more in government schemes and be more proactive in adjusting to change and planning for the future of the business. Higher levels of education seem to be linked to the characteristics of both farmers and farms, including larger farms and more pluriactive businesses.

The study found out that the respondents do not belong to any horticulture co-operative Society this indicates very low membership to horticulture related corporative societies in the three divisions. Though the respondents do not belong to any corporative society, they still appreciate the importance of cooperative societies at product marketing and input sourcing. This indicates that marketing of the crops is perceived as the most important function of a corporative society. Kategile and Mubi (1992) in a report presented to ILRI there has been a rapid growth in registration

of corporative societies attributed to the land ownership in Kajiado County. Delgado (1999) argues that smallholder agriculture is simply too important to employment, human welfare, and political stability in sub-Saharan Africa to be either ignored or treated as just another small adjusting sector of a market economy. Governments in less-developed countries have often promoted the use of cooperatives as organizations that could enhance the development of their small-scale farmers.

5.4 Conclusions

Farmers ranked co-operation or networking skills as the most important skill to have, because this skill is important in developing markets and enables the farmers to enter into new markets. Strategy skills, management skills and professional skills were also identified as important skills a farmer should have to enable them succeed in agriculture venture.

Human resources development was considered as very essential for success in the development of agriculture. Developing the skills of the farmers increases the productivity of the farmer while also ensuring profitability of the farming venture. Agriculture training institutes and observation were identified as mediums that could be used for growth and skill transfer.

Membership to horticulture oriented cooperative societies was low in the county, but there is general agreement that cooperative societies are important. Corporative societies are used to access markets, negotiate stronger power and due to bulk acquisition of farm inputs they get advantages of economies of scale and major discounts.

5.5 Recommendations

Kajiado County Integrated Development Plan, 2013-2017 (2013) states that Agriculture and Livestock development sector is the most important sector in the county. The sector employs 75 percent of the total population and provides nearly 40 percent of the county's food requirements.

This indicates the potential of horticulture farming in the county. Horticulture farming therefore cannot be ignored as an economic pillar for the county. The county should seek ways to develop this sector. The study therefore makes the following recommendations in order to enhance agriculture in the county.

The study identified the need to develop the skills of the farmers particularly networking skills, strategy skills, management skills and professional skills. The county government should start technical training institutions where farmers and farmer representatives could be equipped with these skills. It was noted that better trained farmers are more productive and more successful in their ventures.

The co-operative movement has been noted to be successful in reaching into new markets as noted in the study. Despite the obvious advantages the members have not formed or joined cooperative societies. This could be the reason for the challenge of market accessibility faced by the farmers in the region. Cooperative reduces exploitations by middlemen since farmers have access to large markets without the need to go through middle men. The Ministry of Cooperative in the County should encourage the formation and build capacities of existing cooperative societies. This would enable the small holder get better prices on their produce and source cheap inputs.

Farmer networks are essential tools at reaching new markets and disseminating information to farmers as evidenced by the study. The County administration should strengthen these networks and take advantage of them in order to communicate with farmers and ensure they include the farmers in policy formulation.

Finally for the sustained profitability of the sector, policy should be developed to regulate this sector the policies should facilitate better access to markets, better crop husbandry, reduce post-harvest loss at the farm and infrastructure development like roads, market stalls, cold rooms etc.

5.6. Suggestions for further studies

The study suggests the following areas for further studies:

Despite the large number corporative societies being registered in the county few are horticulture development oriented, further research should be done in order to determine how this corporative societies could be used to access markets and source cheap inputs for its members.

Secondly the researcher suggests that more research is needed to determine how the current policy affects horticulture development and suggest changes and improvements to the current policy

REFERENCES

- Abdullah, H. (2009). Disposition of Human Resource Development Structure in Manufacturing Firms in Malaysia. *Journal of Social Sciences*, 5(1), 52-59. doi:10.3844/jssp.2009.52.59
- AFRICAN DEVELOPMENT BANK: Agricultural Sector Strategy. (2010). *Africa Research Bulletin: Economic, Financial and Technical Series*, 47(2), 18597B-18598A. doi:10.1111/j.1467-6346.2010.03142.x
- Afrin, S., Islam, N., & Ahmed, S. U. (2009). A Multivariate Model of Micro Credit and Rural Women Entrepreneurship Development in Bangladesh. *IJBM*, 3(8). doi:10.5539/ijbm.v3n8p169
- Berger, J. (1991). *About looking*. New York: Vintage International.
- Bhagwanjee, A., Petersen, I., Akintola, O., & George, G. (2008). Bridging the gap between VCT and HIV/AIDS treatment uptake: perspectives from a mining-sector workplace in South Africa. *African Journal of AIDS Research*, 7(3), 271-279. doi:10.2989/ajar.2008.7.3.4.651
- Birley, S., & Westhead, P. (1990). 'North-South' contrasts in the characteristics and performance of small firms. *Entrepreneurship & Regional Development*, 2(1), 27-48. doi:10.1080/08985629000000003
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9-30. doi:10.1016/s0883-9026(96)00003-1

- Drakopoulou Dodd, S., & Anderson, A. R. (2007). Mumpsimus and the Mything of the Individualistic Entrepreneur. *International Small Business Journal*, 25(4), 341-360. doi:10.1177/0266242607078561
- Entrepreneurial Experience Transfer by Role Models: A Structural Model*. (n.d.). (Research in Entrepreneurship and Small Business (RENT)).
- Halicka, E., and Rejman, K. (2001). Farmers entrepreneurship before joining EU establishing producers organizations, 11-12 stycznia 2001, Wydawnictwo SGGW.
- Holcombe, R. G. (1998). Entrepreneurship and economic growth. *The Quarterly Journal of Austrian Economics*, 1(2), 45-62. doi:10.1007/s12113-998-1008-1
- Holcombe, R. G. (1998). Entrepreneurship and economic growth. *The Quarterly Journal of Austrian Economics*, 1(2), 45-62. doi:10.1007/s12113-998-1008-1
- Horticultural Crops Development Authority (2008) Horticulture Data 2005-2007, Validation report.
- Hülsmann, J. G. (1999). Entrepreneurship and economic growth: Comment on holcombe. *The Quarterly Journal of Austrian Economics*, 2(2), 63-65. doi:10.1007/s12113-999-1013-z
- Jones, L. P., & SaKong, I. (1980). *Government, business, and entrepreneurship in economic development: The Korean case*. Cambridge, MA: Council on East Asian Studies, Harvard University.
- Horticultural Crop Development Authority (2008) Horticulture Data 2005-2007 Validation Report pg 41.
- Kajiado County. (2013). Kajiado County Integrated Development Plan,. *Kajiado County Integrated Development Plan, 2013-2017*, 1, 16,77.

- Kategile J A and Mubi S (eds). (1992) Future of livestock industries in East and southern Africa. Proceedings of a workshop held at Kadoma Ranch Hotel, Zimbabwe, 20-23 July 1992. ILCA (International Livestock Centre for Africa), Addis Ababa, Ethiopia. 227 pp.
- Kenyan Horticulture Loses Economic Viability on Rising Costs - Bloomberg Business. (n.d.). Retrieved from <http://www.bloomberg.com/news/articles/2015-01-22/kenyan-horticulture-loses-economic-viability-on-rising-costs>
- Kenya: Vision 2030 Launched. (2007). *Africa Research Bulletin: Economic, Financial and Technical Series*, 44(5), 17404B-17404C. doi:10.1111/j.1467-6346.2007.00983.x
- Kirzner, I. M., & Schmidt, C. (1997). Uncertainty in Economic Thought. *Southern Economic Journal*, 64(1), 347. doi:10.2307/1061071
- Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Man, T. W., Lau, T., & Chan, K. (2002). The competitiveness of small and medium enterprises. *Journal of Business Venturing*, 17(2), 123-142. doi:10.1016/s0883-9026(00)00058-6
- McElwee, J. J. (2004). *Genome Biol*, 5(8), 337. doi:10.1186/gb-2004-5-8-337
- Minniti, M. (1999). Entrepreneurial activity and economic growth. *Global Business and Economics Review*, 1(1), 31. doi:10.1504/gber.1999.006134
- Mouton, J. (2001). How to succeed in your masters & doctoral studies: a South African guide and resource book. Pretoria: Van Schaik. 65.
- Mugenda, M. O, Mugenda, G. A. (1999). Research Methods: Quantitative Methods, Qualitative Approaches. Nairobi: Act Press

- Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative Approaches*. Nairobi: African Centre for Technology Studies.
- Myers, M. (2000). *Qualitative research and the generalizability question: Standing firm with Proteus*. S.l.: Margaret Myers.
- National Drought Management Authority Kajiado county (May 2014) (*Drought Monitoring and early warning bulletin*,
- Ortmann, G. F. (2006). *Small-scale farmers in South Africa: Can agricultural cooperatives facilitate access to input and product markets?* St. Paul, MN: Dept. of Applied Economics, College of Agricultural Food, and Environmental Sciences, University of Minnesota.
- Palo, M., & Uusivuori, J. (1999). *World forests, society, and environment*. Dordrecht: Kluwer Academic Publishers.
- Roberts-Lombard, M. 2002. *Marketing Research- A Southern African Perspective*. Mowbray: Future Managers.
- Schumpeter Prize Awards. (1971). *The Quarterly Journal of Economics*, 85(4), 728-729. doi:10.1093/qje/85.4.728
- Sexton, D. L., Smilor, R. W., RGK Foundation, IC² Institute, & Baylor University. (1986). *The Art and science of entrepreneurship*. Cambridge, MA: Ballinger Pub. Co.
- Shane, S., & Cable, D. (2002). Network Ties, Reputation, and the Financing of New Ventures. *Management Science*, 48(3), 364-381. doi:10.1287/mnsc.48.3.364.7731
- Sheth, J. N., & Sisodia, R. S. (1999). Revisiting Marketing's Lawlike Generalizations. *Journal of the Academy of Marketing Science*, 27(1), 71-87. doi:10.1177/0092070399271006

- Steyaert, C. (2007). Entrepreneurship as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies. *Entrepreneurship & Regional Development*, 19(6), 453-477. doi:10.1080/08985620701671759
- Timmons, J. A. (1989). *The entrepreneurial mind*. Andover, MA: Brick House Pub. Co.
- Ulhøi, J. (2005). The social dimensions of entrepreneurship. *Technovation*, 25(8), 939-946. doi:10.1016/j.technovation.2004.02.003
- Wilson, R. D., & Creswell, J. W. (1996). Research Design: Qualitative and Quantitative Approaches. *Journal of Marketing Research*, 33(2), 252. doi:10.2307/3152153
- Winter, M. (1997). New Policies and New Skills: Agricultural Change and Technology Transfer. *Sociologia Ruralis*, 37(3), 363-381. doi:10.1111/1467-9523.00055
- Wolf, P. D., McElwee, G., & Schoorlemmer, H. (2007). The European farm entrepreneur: a comparative perspective. *IJESB*, 4(6), 679. doi:10.1504/ijesb.2007.014979
- World development report, 2008: agriculture for development. (2008). *Choice Reviews Online*, 45(09), 45-4765-45-4765. doi:10.5860/choice.45-4765
- World Bank. (2008). India Home. Retrieved from <http://www.worldbank.org/en/country/india>
- Yao Dzansi, D., & Pretorius, M. (2009). The development and structural confirmation of an instrument for measuring the social responsibility of small and micro business in the African context. *Social Responsibility Journal*, 5(4), 450-463. doi:10.1108/17471110910995320
- Yates, D. S., Moore, D. S., & Starnes, D. S. (2008). *The practice of statistics: TI-83/84/89 graphing calculator enhanced*. New York: W.H. Freeman.

APPENDICES

COVER LETTER

Dear Respondent,

RE: REQUEST TO RESPOND TO THE STUDY QUESTIONNAIRE

I am a student at University of Nairobi, Nairobi Campus pursuing a Master degree in Project Planning and Management. As part of this course requirement, I am expected to carry out a research on The Role of Entrepreneurial Skills on Agricultural Development: A Case of Horticulture Farmers in Kajiado County Kenya.

I therefore, humbly request for your assistance and cooperation in responding to the questions attached herewith. The information given be treated with utmost confidentiality and was used only for the purpose of the study.

Looking forward for your response and cooperation

Yours faithfully,

Levi Timothy Lerindo Parsankul

L50/66754/2010

INTERVIEW SCHEDULE QUESTIONNAIRE

Questionnaire No. _____ Questionnaire checked.....

Name of enumerator _____ Date checked.....

Date of interview _____

Section A: Respondents Profile

Sub Location..... Location..... Division.....

1. Age of respondent:

20-30 []

31-40 []

41-50 []

51-60 []

Above 60 []

2. Sex of the respondent:

Male []

Female []

3. Occupation of respondent if not primarily farming

.....

.....

4. What was your motivation to get into agriculture farming?

Family Venture []

Demand for product []

Training/ Education []

Availability of Credit []

Other (Specify) []

.....

5. What are the challenges you face in the agriculture venture?

Availability of Credit []

Availability of Training []

Availability of Market []

Availability of Extension Services []

Other (Specify) []

.....

6. Do you use your family in the agriculture venture? Yes [] No []

7. Is farming your primary source of income? Yes [] No []

8. Average number of full time employees.....

9. Average number of part-time employees.....

10. How do you access capital for the venture?

Family []

Banks []

Government lending institutions []

Personal Savings []

Other (Specify) []

.....

11. How is the ownership / organization?

- Family business []
- Sole trader/independent contractor/Self-employment []
- Partnership []
- Management team []
- Other (Specify) []

.....

12. How can you describe your farm holding?

- Small []
- Medium []
- Large []
- Area under Horticulture

Section B: Source of information

In the following two sections, please indicate how strongly you agree/disagree with each statement. Circle the appropriate number 1= strongly agree, 4= neither agree nor disagree, 7= strongly agree.

13. Regarding planning and marketing activities... (Circle One)

It is important to use a formal business plan for a farm 1 2 3 4 5 6 7

It is important to use a formal marketing plan for a farm 1 2 3 4 5 6 7

14. Regarding Your Own Experience of support, advice or information...

Farmers' networks are useful to me	1 2 3 4 5 6 7
Professional associations are useful to me	1 2 3 4 5 6 7
Professional services (e.g. banks) are useful to me	1 2 3 4 5 6 7
Support groups (e.g. trade union) are useful to me	1 2 3 4 5 6 7
Family and friends are useful to me for advice and support	1 2 3 4 5 6 7
Customers are useful to me for advice and support	1 2 3 4 5 6 7
Suppliers are useful to me for advice and support	1 2 3 4 5 6 7
The internet is useful to me for business purposes	1 2 3 4 5 6 7

Section C: Variables

To determine the farmers' perception of skills required for success in the agriculture sector.

15. Do you use a business plan for your farm business?
16. Who developed the business plan?
17. Do you have a marketing plan for your farm business?
18. Who developed the marketing plan?
19. In your own opinion rank the following entrepreneurial skills in order of importance (Tick in order of importance)

<u>Skill</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
---------------------	-----------------	-----------------	-----------------	-----------------	-----------------

Professional Skills (Technical Skills, Production Skills)

Management Skills (Financial Management administrative skills)

Opportunity Skills (Recognising and realizing business Opportunities)

Strategy Skills (Developing and evaluating a business strategy)

Co-operation / Networking Skills (networking and utilizing contacts)

To establish the relationship between the level of education and success in agricultural development.

20. Have you ever been trained in any of the following? (Please Tick)

Skill

Yes

No

Professional Skills (Technical Skills, Production Skills)

Management Skills (Financial Management administrative skills)

Opportunity Skills (Recognising and realizing business Opportunities)

Strategy Skills (Developing and evaluating a business strategy)

Co-operation / Networking Skills (networking and utilizing contacts)

21. In order of importance Please rank the following in terms of who provides the most training to you (5 being lowest 1 highest ranking) (Please Tick)

Government Extension Officers 1 2 3 4 5

Agriculture Training Institutions

Observation other successful farmers

Product companies

Others (Specify)

22. To what level of education do you believe one needs to be successful in agriculture? (Please Tick)

Primary []

Secondary []

Tertiary []

None []

23. Do you use information technology to access information on?

Product Marketing Yes [] No []

Input sourcing Yes [] No []

Crop Husbandry Yes [] No []

Other (Specify) Yes [] No []

.....

To examine the nature of agricultural marketing practice through co-operative movement in Kajiado County

24. Is a Farmers co-operative society necessary? Yes [] No []

25. Are you in a horticultural co-operative society? Yes [] No []

26. What do you consider as the most important benefits of being in horticulture cooperative society?

In-puts []

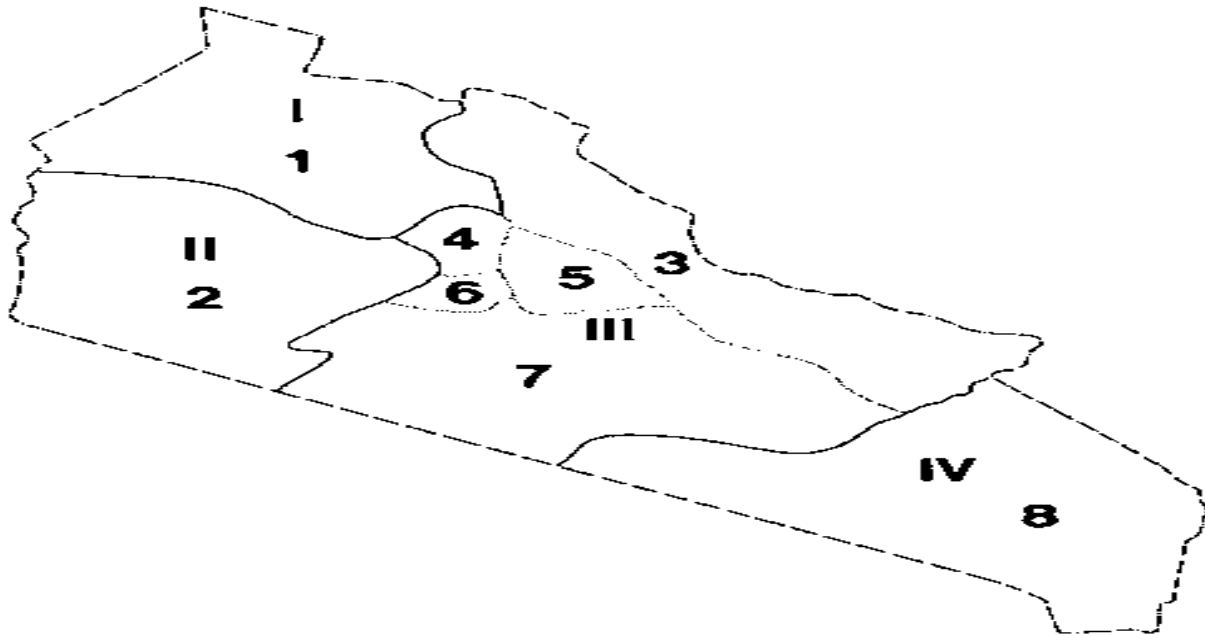
Marketing []

Crop Husbandry []

Others (Specify) []

.....

KAJIADO COUNTY ADMINISTRATIVE DIVISIONS



Divisions

- I Ngong
- II Magadi
- III Central
- IV Blaitekitek

Sections

- | | |
|---------------|-----------------|
| 1 Keekonyokie | 5 Dala le Kutuk |
| 2 Loodikilani | 6 Purko |
| 3 Kaputiei | 7 Matapato |
| 4 Ildaat | 8 Nisongo |

LETTER OF AFFILIATION



UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA-MURAL STUDIES
NAIROBI EXTRA-MURAL CENTRE

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
N A I R O B I

28th August, 2015

REF: UON/CEES//NEMC/22/285

TO WHOM IT MAY CONCERN

RE: LEVI TIMOTHY LERINDO PARSANKUL - REG NO- L50/66754/2010

This is to confirm that the above named is a student at the University of Nairobi, College of Education and External Studies, School of Continuing and Distance Education, Department of Extra- Mural Studies pursuing master of Arts in Project planning and Management..

He is proceeding for research entitled "**determination of the role of entrepreneurial skills on agricultural development; A case of horticulture farmers in Kajiado county Kenya.**"

Any assistance given to him will be appreciated.


CAREN AWILLY
CENTRE ORGANIZER
NAIROBI EXTRA MURAL CENTRE

