

**THE INFLUENCE OF PUBLIC-PRIVATE PARTNERSHIPS ON THE
RELATIONSHIP BETWEEN MARKET ACCESS AND PERFORMANCE OF
SMALL AND MEDIUM HORTICULTURAL ENTERPRISES IN KENYA**

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for the award of degree of Doctor of Philosophy in Entrepreneurship Development of
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DECLARATION

This thesis is my original work and has not been submitted for an award of any degree in any other University or any other award.

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DEDICATION

To my family – my wife, Alice and children, Sidi and Mituka – whose everlasting support, encouragement and patience brought me this far. To my parents, my late father whose thirst for education and search for excellence knew no bounds and my mother who pushed me to finish the course at every opportunity we had to discuss my work.

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OPERATIONAL DEFINITION OF TERMS

- Donor:** This is an agency representing either a single government or a group of governments that give funding for development purposes.
- Globalisation:** This is the transition from national and regional economies to global economies. It is also the process of increasing international integration in economic, cultural and social spheres.
- Growth:** This is a quantitative change or expansion in a country's economy, involving an increase in general functions such as production, trade and consumption over a certain period of time. Other indicators include increasing firm size, profitability, capital assets, market share, and number of employees, products or services.
- Horticulture:** As used in this study, refers to the production of fruits, vegetables and flowers.
- Private Sector:** This refers to the business sector. It is that part of the economy that consists of businesses, companies and professionals who trade products and services for income and profit.
- Public-Private Partnership (PPP):** This refers to a long-term contractual agreement between a public agency and a private sector entity in which the skills and assets of each sector (public and private), together with the potential risks and rewards, are shared in delivering a service or facility for the use of the general public.

Public Sector:	This refers to the Government and its departments or agencies. It is everything that is publicly owned, controlled and managed by the government.
Sanitary and Phytosanitary Measures (SPS):	This refers to any measures applied to protect human or animal life from risks arising from additives, contaminants, toxins, or disease-causing organisms in food; and to prevent or limit other damage to a country from the entry, establishment, or spread of pests and diseases.
Small and Medium Enterprises (SMEs):	This is defined here as businesses that employ up to 100 workers, with an annual turnover of between Kshs. 500,000 to 1 billion. Small and Medium Horticultural Enterprises are therefore those that are involved in horticultural production.
Trade Liberalisation:	This refers to opening the economy to increased international trade, particularly by reducing protectionism.

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ASAL	Arid and Semi-Arid Lands
CABI	CAB International
CBO	Community-Based Organisation
CBS	Central Bureau of Statistics
CIMA	Composite Index of Market Access
COLEACP	Europe-Africa-Caribbean-Pacific Liaison Committee
DFID	Department for International Development
EAC	East African Community
EPZ	Export Processing Zone
EU	European Union
FDI	Foreign Direct Investment
FKE	Federation of Kenya Employers
FPEAK	Fresh Produce Exporters Association of Kenya
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GHI	Global Horticulture Initiative
GNP	Gross National Product
GoK	Government of Kenya
GTZ	German Technical Cooperation Agency
HCDA	Horticultural Crops Development Authority
HIV	Human Immunodeficiency Virus
ICRAF	World Agroforestry Centre (formerly International Centre for

	Research in Agroforestry)
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IFPRI	International Food Policy Research Institute
IIRR	International Institute of Rural Reconstruction
ISHS	International Society for Horticultural Science
JICA	Japan International Cooperation Agency
JKIA	Jomo Kenyatta International Airport
KAM	Kenya Association of Manufacturers
KAPAP	Kenya Agricultural Productivity Agribusiness Project
KARI	Kenya Agricultural Research Institute
KBDS	Kenya Business Development Services
KEPHIS	Kenya Plant Health Inspectorate Services
KEPSA	Kenya Private Sector Alliance
KFC	Kenya Flower Council
KIT	Royal Tropical Institute
LANAWRUA	Lake Naivasha Water Resource Users Associations
LNGG	Lake Naivasha Growers Group
MDG	Millennium Development Goals
MRL	Minimum Residue Levels
NEMA	National Environment Management Authority
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental Organisation
NHP	National Horticultural Policy
NIB	National Irrigation Board

NIC	Newly Industrialised Countries
PPP	Public-Private Partnership
ROCE	Return on Capital Employed
ROE	Return on Equity
ROI	Return on Investment
SACCO	Savings and Credit Cooperative Societies
SAP	Structural Adjustment Programme
SME	Small and Medium Enterprise
SPO	Small Producer Organisations
SPS	Sanitary and Phytosanitary Measures
SPSS	Statistical Package for Social Scientists
UK	United Kingdom
UNCTAD	United Nations Commission for Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organisation
USAID	United States Agency for International Development
USD	United States Dollar
WRMA	Water Resources Management Authority
WRUA	Water Resource Users Associations
WSSD	World Summit on Sustainable Development

ABSTRACT

Terms of participation in international trade present SMEs with a number of performance challenges entailing more demanding capabilities in terms of quality and quantity of products. Alliances between the private and public sectors through Public-Private Partnerships (PPPs) enable creative strategies that help SMEs to break out of their small and sometimes inefficient operations to become more globally competitive. While there is information on PPPs from around the world there is inadequate information available on them in Kenya, and knowledge on their contribution especially in the horticultural subsector has not been well studied and documented. The study examined the influence PPPs have on the relationship between market access and performance of Small and Medium Horticultural Enterprises in Kenya. This was addressed by documenting the sources and nature of Public-Private Partnership support that SMEs in horticulture receive in Kenya, and determining the relationship between market access and the performance of the Small and Medium Horticultural Enterprises as well as the relationship between PPP support and the performance of the horticultural SMEs. Lastly, the study also determined the relationship between market access and the performance of the Small and Medium Horticultural Enterprises when intervened with PPP support. The target population comprised of Finlay's Homegrown Kenya Ltd based in Naivasha, and SMEs that work with Finlay's Homegrown Kenya Ltd and are based in the Central, Rift Valley and Eastern provinces. Stratified random sampling was used to select SMEs from those that are supported by Finlay's Homegrown Kenya Ltd. This study adopted multi-method approach by combining quantitative and qualitative methods. Primary data was collected using a questionnaire, key informant interview guide and observations. Descriptive and inferential statistics were used in the study. SPSS (Statistical Package for Social Scientists version 17) was used in the analysis of data collected. Among the descriptive statistics utilised include frequency distribution and percentages while the inferential statistics used Chi-square test of independence. Data was presented in tables, charts, and diagrams. The study established that Small and Medium Horticultural Enterprises receive support from the public and private sectors and NGOs. However, evidence of the effectiveness of the support provided is mixed and not quite encouraging because partnership between the various sectors is ad hoc and not structured. The study concluded that the relationship between market access and SME performance is improved when intervened by PPP support. After analysing SME support programmes the study recommends that for PPP to be successful in supporting SMEs, a number of actions are required focusing on the establishment of an institutional framework that will help identify, prioritise and define engagement of different stakeholders. This will result in high productivity and overall improvement of business performance in the horticultural subsector and therefore contribute significantly to the realisation of Kenya's Vision 2030.

Key Words: Kenya, Horticultural SMEs, Private Sector, Public Sector, Public-Private Partnerships, Market Access, Performance, Interventions, Agency relationships.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Small and Medium Enterprises (SMEs) are important drivers of economic growth. However, the terms of participation in international trade are particularly daunting for SMEs as these demand exceedingly enhanced performance capabilities especially for those involved in export agriculture (Matambalya and Assad 2002). The constraints range from an increasingly competitive global market to compliance with very strict sanitary and phytosanitary regulations including coping with the high perishability of their produce. Consequently, commodity-dependent developing countries, especially those in Africa are yet to enjoy the full benefits of globalisation and international free trade (Mchumo, 2009).

Achieving global competitiveness can be gained by capitalising on innovation, research and development (R&D) and linking with private and public sectors that provide vital and necessary support in the transfer of knowledge to produce high quality products and therefore improve SME performance. Accordingly, governments are increasingly seeking the services of the private sector through Public-Private Partnership (PPP) arrangements to help in addressing these concerns in a consistent and sustainable manner. These alliances, which have become important in promoting economic growth as they create opportunities to work with market leaders, are now being widely embraced (Shapira, 2002) in development efforts. However, although PPPs have become a significant feature in country development strategies (Leigland, 2006), there is inadequate information available on their impacts in supporting the development of SMEs especially in agriculture in Kenya. Successful and widely known models, summaries of key experiences and lessons learnt to inform policy decisions remain undocumented.

In Kenya, the Government targets SMEs as a launch pad for Kenya's industrialisation process. Sessional Paper No. 2 of 1992 on *Small Enterprises and Jua Kali Development in Kenya* focuses on the SME sector for development. Sessional Paper No. 2 of 2005 on the *Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction*, further spells out measures to enhance the sector and create an enabling environment through specific actions including improvement of business registration, business licensing and tax regimes.

According to the Ministry of Trade, SMEs currently employ approximately 8 million people – essentially 75% of the total labour force – and contributes 20% to Kenya's GDP (Business Daily, 01 February 2010; EAC, 2009). Therefore, improving performance of SMEs is very important in achieving meaningful development. More attention is being given to the sector following the Structural Adjustment Programmes (SAPs) of the 1990s that saw the folding up of many industries and precipitated massive job losses in the public and corporate sectors. This concern is further strengthened by the fact that many multinational corporations (MNC) operating locally in Africa repatriate a huge percentage of their profits to their home countries. Indigenous SMEs on the other hand, retain their profits in their home countries (UNCTAD, 2005).

While analysing policy options for the development of an indigenous tourism SME sector in Kenya, Manyara and Jones (2005) emphasised the need for the Government to develop SMEs in the sector instead of favouring and encouraging foreign ownership of tourism resources in order to limit leakages of revenue and maximise benefits to local communities. Numerous resources (time and money) have been spent promoting SMEs, which despite their political popularity, have neither fostered nor achieved the desired growth (Technoserve, 2007, Nilgun Yankaya, Daily Nation 20 July 2007).

According to Parker and Torres (1999) and Aryeetey and Ahene (2005), studies conducted in other parts of the world show that a number of SMEs neither realise their full potential nor go beyond their fifth birthdays. This situation is well demonstrated in a Gemini study of small businesses conducted in Kenya in 1993 (there is no recent study on this), which found that only 38% of SMEs had grown since their establishment and 47% were single person operations. One-third of the 325,000 SMEs started in that year had failed or closed in the same year and another 90,000 failures or closures had started in previous years. This failure was attributed to the inconsistent product quality due to lack of skills in market research, engineering design and marketing.

Therefore, despite their strong entrepreneurial culture and spirit, SMEs have not evolved beyond mere survival at an individual level to contributing to economic growth and job creation. A competitive strategy based on product variety, packaging and processing is essential and critical but would, in itself, place greater demand and pressure on the supply chain. Global markets also have to meet strict regulatory requirements (Dolan and Humphrey, 2001). A lot more therefore needs to be done to achieve the desired impact (Technoserve, 2006). Policy options focusing on new and innovative mechanisms such as PPPs to develop SMEs are therefore quite important.

In 2011, the horticultural subsector – the second largest in terms of export earnings after tea – directly employed over six million Kenyans. Current contribution to GDP stands at 36% and continues to grow at between 15 and 20% per year (GoK, 2012; HCDA, 2010). The value of Kenya's horticultural produce was estimated at Kshs. 205.1 billion in 2011; the industry earned the country Kshs. 91.2 billion from exports, which only represents 5% of the total production as 95% of the production is consumed locally. Currently, Kenya is the largest exporter of vegetables to the EU (Dolan and Humphrey, 2000; Nyangweso and Odhiambo,

2004), and has until recently enjoyed preferential access to the EU. At the continental level, horticultural imports from Sub-Saharan Africa to the EU rose by more than 130% between 1989 and 1997 and the demand continues to grow (IFPRI, 2004). This labour-intensive sector has contributed to the commercialisation of rural economies, created new industries and with it, new employment opportunities (Technoserve, 2004). The good performance is attributed to the private sector and production is mostly from small-scale producers (The New Agriculturist, 2009). However, the good performance cannot be guaranteed in the future if a clear and organised roadmap to sustainability that involves all stakeholders is not established (GoK, 2012).

Therefore, although the horticultural subsector has shown impressive growth and accounts for a high percentage of total earnings, it is facing serious competition in the global market. The need to develop extremely innovative ways of producing quality products to overcome this emerging challenge is critical. A strong focus on the development of SMEs in this sector will go a long way in ensuring the sector's meaningful contribution to the economy through the exploitation and realisation of their potential.

Further, Kenya's horticulture has been dominated by large-scale and/or multinational enterprises but increasingly, small-scale farmers are getting involved. Indeed, approximately 60% of the horticultural exports were from small-scale producers in 2003 but this figure declined to 55% in 2004 due to stringent consumer demands for high quality and safe produce. Multinational corporations are increasingly controlling the global market and imposing high sanitary and phytosanitary (SPS) standards of quality and timeliness (Maxwell and Salter, 2004).

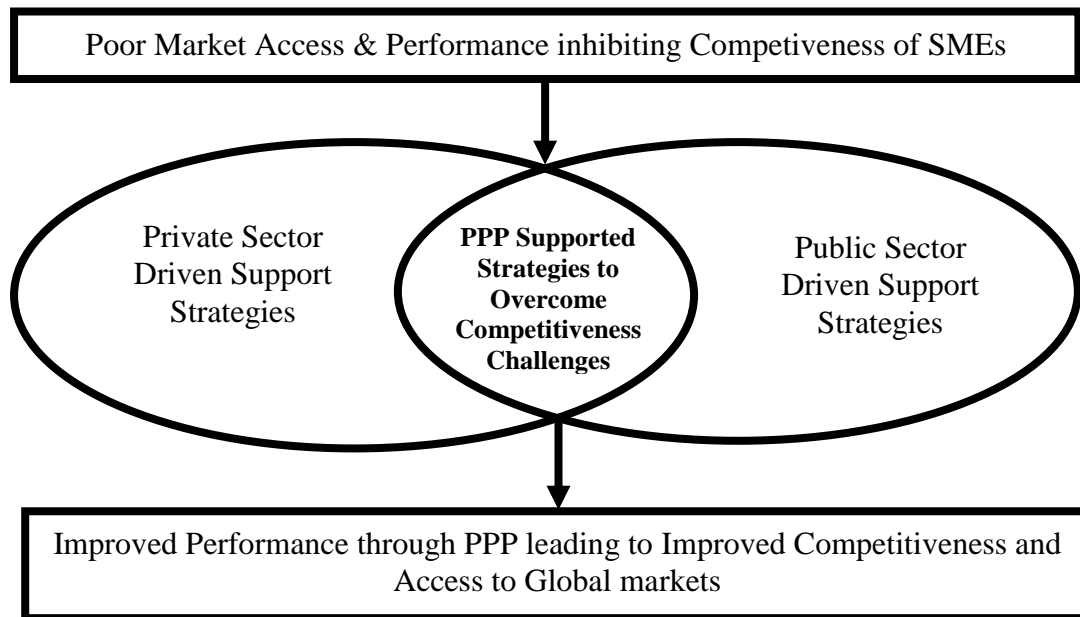
This means that Kenyan products are likely to face stiffer competition from the more efficient countries in Latin America, Asia and even Africa (e.g. South Africa) therefore increasing the

pressure on local SMEs involved in the sector. The business environment is also getting more favourable in neighbouring countries (as is the case of Ethiopia) and big companies are shifting their bases to more attractive locations (East African, 19-25 February 2007). Indeed, according to the Kenya Horticulture Competitiveness Programme Report 2012, Kenya could lose its top place in horticulture. The country, for example, lags behind its peers in credit and financial access, labour costs, sea and airfreight costs. The constraints facing SMEs are formidable, and this calls for holistic SME support, including creating an enabling environment for SME development through effectively functioning supportive institutions (OECD, 2004). New strategies that bring together the public and private sectors to enhance the development of the local SMEs, in view of these challenges, are therefore needed.

Public-Private Partnerships or alliances between the public and private sectors are a beneficial approach in supporting pro-poor economic growth, as they create opportunities to work with market leaders (Shapira, 2002). PPP approaches are becoming increasingly important in country development strategies. Beck *et al.* (2003) suggest that in a developing economy like Kenya where the entrepreneurship culture remains fragile, direct government or public sector support of SMEs would help in improving the performance and growth of the sector. NEPAD has put projects involving Public-Private Partnerships at the centre of its development plans for Africa (Leigland, 2006), and in Kenya, efforts to get the private sector more actively involved in development are on the increase. Indeed, Vision 2030 specifically mentions and lays a strong emphasis on PPPs as a mechanism to achieve the country's development targets.

A good development strategy should be one that assists the development of SMEs (Biggs, 2003); some of the required actions suggest partnerships between the public and private sectors. PPPs have helped SMEs in small countries overcome disadvantages of global trading

systems and market failures through increased exports (Nathan Associates Inc., 2004). Their survival will depend largely on collective ability of these two sectors to stimulate and improve performance (Spielman and Von Grebmer, 2004). A summary of this context is presented in Figure 1.1 below.



Source: Author (2012)

Figure 1.1 Public-Private Sector Interactions

Rapid changes in the structure and governance of national and regional markets affect the ability of SMEs to respond and they therefore find themselves poorly prepared for these changes (Berdegue *et al.*, 2008). Farmers need to be involved in the management of the value chain by improving their access to market information, access to knowledge, their control of contracts and even more importantly, their cooperation with other actors in the chain in the public and private sectors (Peppelenbos, 2007). Access to capital and knowledge is essential in encouraging the creation of microenterprise agriculture. Collaboration between farmers, government, NGOs and the private sector can have broader impacts ensuring that participation in global trade benefits agricultural SMEs (Oxfam, 2010). The National

Agricultural Policy underscores the important role of Public-Private Partnerships and the need to continuously engage stakeholders in the horticultural industry to ensure inclusiveness by working together to help realise sustainable growth and achieve global competitiveness.

The need and ability to respond to changing trends and requirements in the export market has become a crucial element in determining the competitiveness in the industry. This can be further strengthened through active involvement of private and the public sector through PPP arrangements. As such, SME development strategies should emphasise alliances between businesses and the Government (PPP) in order to open up more opportunities and to overcome performance impediments. To do this, practical evidence on the impact of PPP approaches in SME performance needs to be systematically established to help partners initiate performance-enhancing interventions for the sector. This is the essence of this study.

1.2 Statement of the Problem

A number of studies show that most SMEs face several performance constraints and a good number fail within the first four years of commencing operations (Parker and Torres, 1999; Aryeetey and Ahene, 2005). Those in the horticultural subsector where competition is stiff – due to strict compliance to global standards – are particularly vulnerable to failure (EPZ, 2005; Nyangweso and Odhiambo, 2004; Wasilwa, 2008). In Kenya, the subsector has been the centre of focus by a number of Government efforts to encourage the private sector to be actively involved in providing support (HCDA, 2003). Numerous resources and efforts have been put into promoting SMEs but these have neither fostered nor achieved the desired development (Technoserve, 2007). Presently, the intensity of the efforts is unclear especially how they improve quality and accessibility. That many agencies are involved, could also pose a challenge in terms of coordination, and this will further intensify the problem instead of

offering a lasting solution. There is therefore need to find ways to consolidate efforts between the public and private sectors to achieve this, essentially through Public-Private Partnerships. PPPs have helped SMEs to overcome market failures and the disadvantages of global trading systems by enabling them to take advantage of economies of scale, expanding access to markets, through information and technology, trade, advanced research and extension and improved adherence to sanitary and phytosanitary (SPS) measures and other standards (Nathan Associates Inc., 2004). However, their contribution to the development of Small and Medium Horticultural Enterprises in Kenya is still unclear since this has not been systematically documented. This study contends that PPPs are beneficial and therefore seeks to establish their influence on the relationship between market access and performance of small and medium horticultural enterprises.

1.3 General Objective of the Study

1.3.1 General Objective

The general objective of this study was to establish the influence of Public-Private Partnership (PPP) on the relationship between market access and performance of Small and Medium Horticultural Enterprises in Kenya.

1.3.2 Specific Objectives

The specific objectives of this study were to:

- (i) Examine the sources of the PPP support provided to horticultural SMEs,
- (ii) Evaluate the nature of PPP support that horticultural SMEs receive in Kenya,
- (iii) Determine the relationship between market access and the performance of the horticultural SMEs,

- (iv) Determine the relationship between PPP support and the performance of the horticultural SMEs,
- (v) Determine the relationship between market access and the performance of horticultural SMEs when intervened with PPP support.

1.4 Research Hypotheses of the Study

This research set out to test the following hypotheses:

Hypothesis 1: Performance of SMEs is independent of market access.

Hypothesis 2: Performance of SMEs is independent of Public-Private Partnership support.

Hypothesis 3: Market access is independent of Public-Private Partnership support.

1.5 Significance of the Study

The theoretical contributions of this study in terms of knowledge on the various issues that call for PPP intervention are valuable in stimulating the growth of SMEs in the horticultural subsector. Based on the research findings, the Small and Medium Horticultural Enterprises owners and managers have identified the areas in which PPP intervention should focus on. Mainly, they require PPPs to address the challenges of access to appropriate financial support, reliable markets and capacity building including training. Based on the research findings, it is expected that the private sector involved in the horticultural production system will now refocus its support to address the critical process that will lead to value-addition in the industry as a whole. In addition, the public sector or the Government will now be in a position to realign support offered to the sector and re-emphasise the need for partnership with the private sector since the research findings have highlighted the issues that need to be resolved.

Lastly, the research findings provide a basis for scholars to further explore PPPs, and also replicate the lessons from this study in other sectors of the economy where SME growth and development is dependent and can be stimulated through PPPs.

1.6 Assumptions

There were five main assumptions in this study:

- (i) Small and Medium Horticultural Enterprises do receive support from both the public and private sectors.
- (ii) The public and private sectors provide different nature of support to horticultural SMEs.
- (iii) The performance of Small and Medium Horticultural Enterprises is dependent on market access. Small and Medium Horticultural Enterprises have increasingly faced performance challenges in the global market due to strict market conditions and entry of new players and therefore devising new strategies to improve market access and support their development and survival is important.
- (iv) There exists a relationship between the Public-Private Partnership support provided and the performance of Small and Medium Horticultural Enterprises.
- (v) Performance of Small and Medium Horticultural Enterprises is improved by improved market access through Public-Private Partnerships. PPPs play a catalytic role in improving performance of SMEs by bringing the private and public sector to work together towards a common objective in a sustainable way.

1.7 Delimitations and Scope of the study

1.7.1 Delimitations

This study was restricted to Public-Private Partnerships as an enabler of economic activities where SMEs are involved. It targeted Small and Medium Horticultural Enterprises because recent statistics have indicated that the horticultural subsector is emerging as a major contributor to Kenya's economic development (EPZ, 2005).

1.7.2 Scope and Limitations

The resources available for the study limited the researcher to study the Small and Medium Horticultural Enterprises that work with Finlay's Homegrown Kenya Ltd in the main horticulture-producing regions namely Naivasha, Naro Moru, Meru, Kathiani, Mwea, Narok, Loitokitok, Ol Kalou, Makuyu, Molo, Rumuruti and Mweiga. These limitations did not impact on the findings of the study, as the findings could be generalised to Small and Medium Horticultural Enterprises in the country as a whole.

1.8 Organisation of the Thesis

This thesis has five chapters. Chapter 1 gives a background to the research, which highlights the importance of SMEs and the difficulties faced in accessing export markets. The problem statement highlights the gap in knowledge on the influence of PPPs on the relationship between market access and performance of horticultural SMEs. The section further details the study objectives, the hypotheses established the significance of the study to various stakeholders and the study's delimitations and assumptions.

Chapter 2 addresses the empirical and theoretical review for the study which provided a contextual background for the study. The first section provides an overview of the essence of

horticulture in the economic growth of Kenya while the second section reviews the performance constraints of SMEs in horticulture. Literature on PPPs, their benefits and various countries' experiences is reviewed in the last section.

Chapter 3 described the research methodology used to test the hypotheses and answer research questions established in Chapter 1. It also includes the research design, data sources, the procedures in data collection, data collection instruments and techniques of analysis and presentation.

Chapter 4 gives details of the findings of the research including the descriptive and inferential analysis which are presented and discussed under each objective.

Chapter 5 presents a summary of findings, conclusions and recommendations of the study to the public and private sectors. This section also presents the study implications and recommendations for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter addresses topics that provide a contextual background to the study. The first section provides an overview of the essence of horticulture in the economic growth of Kenya while the second section reviews the performance constraints of SMEs in horticulture. Literature on PPPs, their benefits and the experiences of various countries is reviewed in the last section, and the conceptual framework presented.

2.2 Role of SMEs in the Economic Growth of Kenya

The significance of SMEs in economic development cannot be overemphasised. SMEs are the lifeblood of any economy and their development is therefore a crucial condition to the economic competitiveness of a country (Matambalya and Assad, 2002). However, a number of studies show that most SMEs die within the first four years of commencing operations (Parker and Torres, 1999, Aryeetey and Ahene, 2005). Those in horticulture are particularly vulnerable because the subsector is the most technologically and knowledge-demanding sector of agriculture.

The importance of SMEs in economic development is now increasingly recognised and development partners are playing a critical role in promoting the sector (White and Fortune, 2004). Bianchi and Bivona (1999) have shown that SMEs' challenges lie on start-up and early stages of growth since these are critical to entrepreneurial involvement and risk of failure. They opine that during early stages, the business idea is yet to be well developed and elaborated, implementation of the business idea is not yet figured out, an initial team to give support in strategic decisions is not established and minimum customer and sales base is still

to be established to obtain the necessary liquidity to meet initial financial needs. Best *et al.* (2005) identified the major challenges in smallholder agriculture in developing countries as being low value of goods, market pressure, oversupplied markets, decline in commodity prices, inconsistency in policy by governments, poor organisation, declining infrastructure and natural and civil shocks among others. Economic value is generated in a value chain in its entirety and effective investment decisions must consider all the links in a value chain (Mchumo, 2009).

Economic development and poverty alleviation continue to preoccupy developing countries' agenda. Governments and development partners have expressed concern that efforts to reduce poverty have not generated the desired impact given that the number of those living on less than a dollar a day is not reducing significantly. As a result, Vision 2030 strongly supports the role of SMEs in job and wealth creation on one hand and Public-Private Partnerships on the other as a new approach for resolving the development dilemma, by bringing the private and public sectors to work side by side (GoK, 2010). Most multinational corporations all over the world have traditionally enjoyed government support but as they try to survive and become more efficient and competitive they have ended up downsizing or merging. This has resulted in the increased emergence of local SMEs as a means of survival of the retrenched; with time these SMEs are increasingly beginning to play a very important role in job creation, social stability and economic welfare.

Many previously poor countries have made impressive gains in the last two decades through SMEs. Development partners – like the UK government's Department for International Development (DFID) – have recognised the importance of SMEs in economic development and have since played a critical role in promoting the sector in developing countries like Kenya (White and Fortune, 2004).

In Kenya, SMEs employ 8.3 million people and create 590 million jobs annually, contributing 18% to the national wealth (Economic Survey, 2010). There has therefore been a number of policy papers (sessional papers, development plans and legal notices) focusing on the development of the SME sector. The most recent is Sessional Paper No. 2 of 2005 on *SME Development for Wealth and Employment Creation for Poverty Reduction*. The Sessional Paper specifically recognises the need to establish and maintain conducive environment for SMEs so as to have the right capacity to produce high quality products and thus create sustainable employment opportunities.

To this end, the Government welcomes all forms of support from development partners channelled through appropriate mechanisms that do not cause market distortions. Facilitating the sector to respond to the needs of the international customer is a key objective considering that Kenya is part of the global trading system, where changing international trade regimes and global business strategies affect the kind of opportunities available and constraints facing the country. According to Gibbon and Ponte (2005), the terms of participation in international trade have entailed more demanding capabilities on SME performance.

2.2.1 SMEs and Horticulture in Kenya

According to the 2004–2014 Strategy for Revitalizing Agriculture (GoK, SRA 2004) and the EPZ Report (EPZ Report, 2005, Horticultural Policy 2012), agriculture and its related activities account for over 50% of Kenya’s Gross Domestic Product (GDP) and provides 62% of national employment. The agricultural sector directly influences overall economic performance in Kenya with periods of good economic performance being directly associated with increased agricultural growth. Indeed, the horticultural subsector is emerging as a major contributor to the economic development of Kenya (EPZ, 2005). The sector has shown a

fairly steady growth in the past five years with floriculture averaging 20% and fruits and vegetables 10% (HCDA, 2005; Daily Nation 17 August 2006).



Source: KNBS, Ministry of Agriculture and KHCP

Figure 2.1 Exports of Horticultural Products (Kshs. bn)

According to the USAID Kenya Horticulture Competitiveness Project (KHCP), Kenya's horticultural export earnings rose by 18% in 2011, despite a 5% dip in volumes from 403,026 tonnes in 2010 to 382,638 tonnes in 2011 (Reuters, 20 February 2012). In 2011, the country is said to have earned Kshs. 91.6 billion (\$1.10 billion) from the sale of flower, fruit, vegetable and nut exports, with flowers fetching the bulk of the earnings at Kshs. 44.51 billion – a 25% increase from the Kshs. 35.56 billion earned in 2010.

With the large and growing local market, future prospects look promising. Undoubtedly, the survival of SMEs in this sector through improved performance is important and therefore needs to be strengthened. The vibrancy of the sector's development through the private sector has attracted substantial interest from development partners (Integrated Horticultural Consultants, 2005; Bolo, 2005). In general, SMEs are an important target group for innovation policy in many developing economies due to their distinctive characteristics

including a limited resource base compared to large firms and a lower ability to shape their external environment (Nauwelaers and Wintjes, 2002).

2.2.2 Factors Affecting Horticultural SME Performance

A high proportion of newly established SMEs close down during their formative years, a failure attributable to a number of factors including but not limited to the entrepreneurs, the firms and the business environment in which they operate. These closures indicate that these firms were not able to maintain alignment with their environment, or had never even achieved it. A study conducted in 2009 by Ernst & Young on survival and growth rate of enterprises in EAC countries highlighted seven major constraints contributing to SME failure. These were the policy environment, access to finance, business development services, access to markets, access to technology, infrastructural support and subcontracting. This also strongly highlights unreliability of SMEs in terms of inconsistent supplies.

As mentioned previously, a Gemini study conducted in Kenya in 1993 established that one-third of the 325,000 SMEs started in 1993 had failed or closed in the same year while another 90,000 failures or closures of SMEs started in previous years. A major factor behind these poor growth and survival rates is the homogeneous nature of products manufactured and sold by Kenyan SMEs, attributed to lack of skills in market research, engineering design and marketing amongst entrepreneurs. Farther afield, in 2002, Finland demonstrated that half (50.2%) of the firms that closed down had survived less than five years (Statistics Finland, 2004).

Changes in the business environment cause more uncertainty in SMEs than in large companies. Most SMEs especially in developing countries are experiencing stiff competition because price continues to be important, and quality, speed and flexibility matter more than before. Due to forces of liberalisation and globalisation, SMEs have little choice but to

confront these pressures (UNECA, 2001). SMEs' ability to acquire information about the market and change the course of the enterprise is very critical but poses a great challenge. The response to changes in the business environment is experienced differently by SMEs than it is in large companies (Chen and Hambrick, 1995). Large firms may abandon one of their business areas but this may be impossible for SMEs. The options for responding and the opportunities offered by the industry and location are limited by the firms' resources and strategic choices.

To address these factors, SMEs must be supported to ensure access to necessary and affordable inputs, delivery of business and financial services, enabling the flow of information, facilitating improved market access including access to higher-value markets or value-added products. Searching for innovation and effective facilitating models involving all stakeholders in the private and the public sectors to improve performance is therefore important. For horticultural SMEs, these performance challenges can be grouped into the following areas:

2.2.2.1 Access to Resources

Investment climate assessment data indicates that the record of competitiveness and therefore performance is poor for firms in Sub-Saharan Africa (World Bank, 2004). A joint report by FKE, KAM and KEPSA (2007) acknowledged that the cost of doing business for SMEs and the prevailing business environment are the major challenges to competitiveness of SMEs in Kenya; the cost and unavailability of inputs such as fertilisers are also important issues. Campayne (2006) also identifies limited resources for administration and changing business cultures as challenges for SMEs and suggests diversification in opportunities, and practical and information support to help counter these challenges. Glas *et al.* (1999) noted that SMEs need time to establish their market presence in their own country before they can promote

their operations in foreign markets. They also argue that entering the international market is a difficult task for SMEs especially those that are owned or managed by individuals who do not have extensive export experience and have limited support in marketing, information and other business services. Muganda (2003) also points out that the survival of SMEs depends on their capacity to embrace the opportunities that e-business has to offer.

In many studies, firm resources and finances have been known to have a critical role; some (Lussier, 1996; Hall and Young, 1991) underscore the fact that firms that start undercapitalised have a greater chance of failure. Financial inadequacies such as undercapitalisation and problems in venture capital relationship are the major factors affecting firm failure (Bruno *et al.* 1987; Zacharakis *et al.* 1999; Boyle and Desai, 1991; Cromie, 1991). The lower the levels of external borrowing are, the higher the probability that the firm will survive (Reid, 1991). Thus, SMEs face financial and organisational challenges that need to be addressed through innovative arrangements such as PPPs if growth is to be sustained (IDA, 1996).

2.2.2.2 Access to Technology

In a knowledge-based economy, competitive advantage means the capacity to deliver fast is critical. Innovative forms of work that raise productivity offer SMEs tremendous opportunities such as access to world markets, low-cost entry into new markets and the ability to gain efficiencies in business processes. However, these may be illusory for most SMEs (Wickramasinghe and Sharma, 2005). Many consumers are now demanding that the products they buy be produced in an environmentally-friendly way and this is expensive as it means new innovations to produce 'green' products with improved shelf-life or freshness. With technology acquisition being expensive for many SMEs, PPP arrangements help to make technologies affordable and accessible.

2.2.2.3 Access to Knowledge

Very often, the lack of education and inappropriate training is responsible for poor performance and low productivity in agriculture. The success and competitiveness of any business is dependent on a range of situational and contextual factors, which may involve understanding the problems of such businesses and identifying potential solutions (Fielden *et al.*, 2000). In the case of horticulture, we are dealing with an extremely knowledge-intensive and technologically demanding agricultural sub-sector. Therefore, acquisition of knowledge in appropriate forms that enable decision making is important. Getz *et al.* (2005) assert that businesses owned and operated by individuals and families are typically not grown for the sake of getting bigger, nor are they managed as if profit making were the sole objective. They are not prepared to take risks (Bridges.Org, 2002; Land, 2002; Lundeström and Steveson, 2002).

On the other hand, the strong desire of many SMEs owners to retain personal control and business independence has long been recognised as a key factor limiting their growth (Gray, 1990). Owner-managers often perceive barriers to growth as being external in origin such as issues related to money management being the difficulty for business start-ups. Thus, the vulnerable phase of new SME requires the creation of a self-sustaining enterprise whose core process is underpinned strongly with resources and capability of opportunity exploitation (Thakur, 1995). Availability of human resources and managerial expertise that is critical for the competitiveness of the agricultural market can only be adequately achieved by pooling resources and expertise and sharing risks between the public and private sectors.

2.2.2.4 Training

SME failure may also be related to a number of factors including but not limited to the entrepreneur's lack of higher education and experience, lack of an effective management

team, innovativeness in products, good customer relationships, avoidance of dependency on only a few customers, good cooperation relationships, adequate financing, skilled personnel, strategic planning, firm growth, firm flexibility, focusing on core business, and operation in favourable economic conditions.

In explaining firm failures, a number of studies have concentrated on entrepreneur characteristics like the entrepreneur's age, gender, lack of work experience, and family background. However, entrepreneur's education has been quite consistently verified in empirical studies to influence firm performance positively (Storey, 1994). Lussier (1996) shows that there is considerable evidence that firms managed by people without management experience have a greater chance of failure than firms managed by people with such experience. Jennings and Beaver (1997) further observe failure or poor performance of small firms is linked to lack of management attention to strategic issues be it at the national, regional or global level. This inhibition can be linked to education and ability to acquire the right information and making use of it to inform timely decisions.

Poor management is often associated with firm failure in several studies (Haswell and Holmes, 1989; Gaskill *et al.* 1993; O'Neill and Duker, 1986). Lack of management skills was seen to be a major failure determinant by Zacharakis *et al.* (1999), and Boyle and Desai, (1991) contend that the entrepreneur's inability to perform both planning and administrative functions is associated with firm failure.

2.2.3 Measuring SME Performance

Performance measurements are designed to support management in measuring SME performance to improve on better decision making. According to Neely *et al.* (2002), performance can be assessed using different measures and perspectives. These measures can be financial and non-financial measures and can include profit before tax and turnover while

the non-financial measures focus on issues pertaining to customers' satisfaction and customers' referral rates, delivery time, waiting time and employees' turnover (Chong 2009). Tatichi *et al.* (2008) mentioned that SMEs have used financial measurement tools such as Return on Investment (ROI), Return on Equity (ROE), and Return on Capital Employed (ROCE). The various measurements and perspectives are tied together and continuously monitor the internal and external context of the organisation.

Garengo *et al.* (2005) outlines a number of models that have been widely used in measuring performance. These are summarised as follows (a) Performance measurement matrix (Keegan, *et al.*, 1989), (b) Performance pyramid system (Lynch and Cross, 1991), (c) Performance measurement system for service industries (Fitzgerald, *et al.*, 1991), (d) Balanced Scorecard (Kaplan and Norton, 1992, 1996), (e) Integrated performance measurement system (Bititci, *et al.*, 1997), (f) Performance Prism (Neely, *et al.*, 2002), (g) Organisational Performance measurement (Chennell *et al.*, 2000), and (h) Integrated Performance measurement for small firms (Laitinen, 1996, 2002).

Various scholars state that there are a number of challenges that SMEs face in the implementation of these models and suggest that a possible way forward is to apply the non-financial measures as supplements to the financial measures (Kunkel and Hofer, 1993; Covin and Slevin, 1989; Begley and Boyd, 1987; Sandberg and Hofer, 1987; Manville, 2006). The combinations of these two measures help SME managers to gain a wider perspective on measuring and comparing their performance, in particular the extent of effectiveness and efficiency in utilizing the resources, competitiveness and readiness to face the growing external pressure including globalisation.

Frequently adopted non-financial measures used by the SMEs include number of employees (Orseret *et al.*, 2000; Mohr and Spekman, 1994; Robinson and Sexton, 1994; Loscocco and

Leicht, 1993; Davidsson, 1991; O'Farrell, 1986), growth in profits (Miller, Wilson, and Adams 1988), market share and market access (Bouchikhi, 1993; O'Farrell, 1986). There are five distinct performance perspectives that SMEs need to address when defining a set of performance measures: stakeholder satisfaction, strategies, processes, capabilities and stakeholder contribution (Jamil and Mohamed, 2011).

Depending on the duration of a project that the SMEs undertake, the results and returns can be measured based on the short or long-term measures. Short-term measures are normally based on the financial returns, and long-term measures on non-financial returns. The short-term financial measures, which include revenues and profitability, reflecting an organisation's current state of performance may not necessarily serve as a useful guide or prediction for the organisation's long-term survival (Birley and Westhead, 1994). Haber and Reichel (2005), advance that SMEs can achieve future growth and expansion by adopting a growth strategy that is supported through a pool of resources built through accumulating the revenues and profits over the trading period. Phillips (1999) argues that profitability in the short run is an important factor in the SME's ability to achieve its long-term goals such as increased market share, improved capacity and competitiveness.

In summary, SMEs adopt a hybrid approach combining both the financial and non-financial measures to evaluate performance against the predetermined goals. In effect, most SMEs use profits, growth (revenue and number of employees), and market share and market access as measuring indicators.

2.2.4 Markets Access Challenges for Horticultural SMEs

Participation in the global trading system means that some of the challenges that face commodity-based SMEs especially in Africa are rapidly changing and are entirely new, demanding new business strategies for SMEs to remain competitive. To avoid further

marginalisation, there is need for a better understanding and interaction between public forms of governance involving international and domestic regulation and private forms of governance, which involve global business strategies and the dynamics of coordination in global value chains (Gibbon and Ponte, 2005). Without the right market strategy, some enterprises are unlikely to succeed in the highly competitive international agricultural market. Limitations to these interactions have an impact on the emergence and survival of local SMEs involved in global commodity business, and therefore intervention strategies that improve market share are important and must be fostered.

Developing and adapting to quality standards with scarce resources remains a challenge for SMEs in horticulture. Tschirley *et al.* (2004) specifically cite challenges facing SMEs in horticulture as being driven by consumer demand for quality and food safety in the export market. Curran (1999) suggests that seeking to improve the competitiveness of SMEs is not only about understanding problems confronting businesses in this sector but also about understanding how to overcome these barriers. According to Narrod *et al.* (2008), market access requires stringent food safety requirements and to enable SMEs to remain competitive in such a global system, new institutional arrangements are required. In particular, Public–Private Partnerships can play a key role in creating farm to market linkages. Already we are beginning to see a campaign by UK supermarkets (Daily Nation, 02 March 2007) to cut imports of African horticultural produce. The “food mile” debate as it is now known, poses a dilemma for African small producers who are trying to trade their way out of poverty.

This affects performance and requires innovative partnerships between the public and private sectors that help SMEs address the challenge. Weak institutional support and frameworks also plays a major role in market access. Constraints in the areas of utilities, working capital, strong competition, a shortage of inputs are some of the major drawbacks that have been

identified as barriers to the growth and ultimately better performance of SMEs (Mahemba, 2003). He argues that types of barriers and problems facing SMEs depend among other things on the size of an SME and the sector condition.

There are pertinent internal and firm-external factors that may contribute to firm failure either immediately or in the long-term. The external business environment of the firm, essentially the macroeconomic situation and the changes in it, has been found to have an association with firm failure. Poor external market conditions, including stiff competition, slow market growth, and small market size, have been identified as major factors associated with firm failure. Other studies have also found that stiff and increased competition and the firm's inability to respond to it, are also associated with firm failure (Roure and Maidique, 1986; Gaskill *et al.* 1993).

In addition, firm type is important as is the context, which plays a critical role in that, what works in one context will not necessarily work in another. For example, in horticulture, managing the product to market chain is complex because of the characteristic of the products. Perishability, price variability, quality, quantity, seasonality and, bulkiness complicate efficient organisation of this highly perishable supply chain. That the industry is characterised by a high number of SME producers further complicates matters. This entails, for example, high transactions costs, it increases the variability of production, and the geographic spread increases distribution costs. These characteristics require advanced organisation, and management to result in an efficient and seamless sustainable global supply chain (ISHS, 2005). Many failure factors are also related to products and services, customers and markets, and cooperation and partnerships with other stakeholders. Reid (1991) advances that the greater the product range the higher the probability that the firm will survive.

An enabling policy environment is important. The change of scenario in developing countries has been very rapid with the liberalisation of the agricultural sector. This has led to governments withdrawing from many agricultural marketing functions, thereby affecting supply chains. This implies a diminished market and accessibility to the ancillary services by parastatal marketing boards for smallholder producers while farmers in developed countries continue to get subsidies from their governments (UNCTAD, 2006).

A study conducted by Bridges.Org (2002) opines that entrepreneurship or SME support initiatives can be used to address some of these barriers. Factors such as risk and business owners' response to risk, demand, economies of scale, entrepreneurship, access to capital and government policies could determine whether a given SME grows or not (Ongile and McCormick, 1996). The same authors also assert that economies of scale allow big firms to produce cheaply and charge low prices compared to SMEs. Creativity or innovation and willingness to take risks, access to resources for buying raw materials, employment of quality labour and effects of government policies (that directly or indirectly discourage growth) are very crucial for the survival of SMEs. This study contends that through PPP these concerns can be addressed.

Economies of scale or agglomeration also play an important part in performance. The competitiveness of the agricultural sector in general and the horticultural subsector in particular, depends to a larger extent on the individual enterprises at micro level. The existence of small-scale production units in many developing countries also leads to poor performance because agricultural products are collected often by many traders from many different producers to achieve some economies of scale with a huge variance of different qualities combined. Exporting the products is often difficult due to strict market requirements

in terms of production standards; postharvest handling, social and environmental issues (Nyangweso and Odhiambo, 2004).

Formation of production groups managed by one experienced entity as opposed to individual small-scale producers who have no brand name attached to them or certification of their own may help to address this vulnerability concern. Partnerships provided by the big private firms guarantee markets, as there is better coordination that will ensure consistency in standards, production of crops at the same time and availability of modern technology among other things. Hence, strategies and policies that enhance them are important in SME development.

2.2.4.1 Measuring Market Access

Market access covers new or improved entry for horticulture products (fresh fruit, vegetables, nuts, cut-flowers and nursery production) into markets where terms and conditions of access need to be negotiated on an inter-governmental basis with those authorities responsible for the control of import, health and safety regimes. This broad definition of market access covers phytosanitary (quarantine), sanitary (contaminants e.g. pesticides) and non-quarantine (e.g. exclusion, duties, quotas, tariffs, licences) requirements that need to be addressed through the established channels for authorising or improving access (Horticulture Australia, 2010).

Greater market access leads to increase in trade and from increased trade comes greater income growth. Unfortunately, there exists no single agreed measure or commonly accepted definition of market access. Market access has traditionally been analysed from an international trade perspective. In the trade policy literature, market access is an umbrella term aimed at including analysis of a number of measures that countries may use to restrict imports and therefore limit market access (Squalli J. and Wilson K., 2007).

The extent to which markets are open and transparent to trade is important for SMEs involved in global trade in accessing the markets. SMEs must pay attention to barriers to entry and be well prepared to address them. The “Composite Index of Market Access” (CIMA) can be used to measure market access. This approach proposes a shift of focus from the number and complexity of measures being considered like export tariffs, technical barriers, health and safety measures and standards to a uniform and comparable index. A study conducted by the International Centre for Trade and Sustainable Development (ICTSD) suggests that CIMA could become an effective tool for policy discussions. A number of issues such as the following could be considered. Perhaps most important in the context of this study is to (i) identify shifts in market access over time and (ii) empower exporting farmers with useful information on which to base decisions. In the study, the data has been captured based on some of the (i) history of market access increase over time and (ii) increase in the level of market share over the period when the SMEs started getting PPP support. Evidence of increased access and share is based on SME owner’s perceptions and measured on a Likert scale.

Romalis (2006) posits that trade expansion induced by greater market access appears to cause a quantitatively large acceleration in the growth rates of the participating entity, be it an SME or a country. Trade depends on all countries’ barriers. While improved access to developed country markets can expand developing country trade, it can do little for an economy that is essentially closed. He further suggests that the quality of institutions is critical in this. Kamara (2004) advances that market access is ‘time taken to the market’, which is more appropriate than physical distances due to differences in wealth and farm resources, and hence different means of transportation. This is where PPP becomes important in ensuring the development of institutions and infrastructural support that can cope with these challenges. A good example is the Practical Training Centre. The Centre, which has been developed as a

PPP between the Fresh Produce Exporters Association of Kenya (FPEAK) and the Kenya Agricultural Research Institute (KARI), helps to build all-round capacity including strengthening institutions to achieve improved market access and business performance through PPP arrangements.

2.2.5 Public-Private Partnerships

Several scholars have addressed the meaning of Public-Private Partnerships, specifically what is meant by the public and private sectors and therefore the context in which the two terms are used in this study. Spielman and Grebmer (2004) refer to the public sector as everything that is publicly owned and controlled and managed by the government. It could be a State-owned company commonly known as parastatal or corporation, or a public hospital or school, essentially that part of the economy not in private ownership. The private sector refers to the business sector or that part of the economy that consists of businesses, companies and professionals who trade products and services for income and profit. The businesses are not associated with government agencies and are strictly owned by private investors as opposed to ownership by the government.

Most African countries today embrace the private sector to help in their economic development efforts with national development plans increasingly focusing on the promotion of the SME sector. Biggs (2003) argues that a good development strategy should be one that assists the development of SMEs. Some of the required actions suggest partnerships between the public and private sectors. In Kenya, efforts to get the private sector more actively involved in development are on the increase. Beck *et al.* (2003) suggest that in a developing economy like Kenya where entrepreneurship culture remains fragile, direct government or public sector's support of SMEs would help in improving the performance and growth of the sector.

In small countries, PPPs have helped SMEs overcome market failures and the disadvantages of global trading systems but their survival will depend largely on the collective ability of these two sectors to stimulate and improve performance (Spielman and Grebmer, 2004). In general, SMEs provide the bulk of the entrepreneurs and employment in developing countries and their linkages with larger enterprises is critical for successful business practices (ESCAP, 2003). For this reason, it is necessary to reflect and systematically address challenges that face Small and Medium Horticultural Enterprises proprietors.

Spielman and Grebmer (2004) noted that in a PPP arrangement the public sector's responsibility is mostly that of oversight and quality assessment while the private sector's is more closely involved in the actual delivery of the service or project. They further observed that each sector works together towards a mutual and collective goal based on the fact that the partnership optimises the comparative advantage of both sectors and yields significant benefits for the participants. In addition, the private sector is seen to be more efficient in the delivery of services than the public sector.

Partnerships between the private and public sectors are important e.g. in situations where there may be a need to stimulate small firms and where market failures may result because of lack of or inappropriate technology transfer and innovations (Demirguc-Kunt, and Levine, 2003). The underlying issue is that in an era of globalisation and with increasing constraints on national budgets and increasing public expectations, today's complex problems cannot be fulfilled by only one sector. PPPs allow one to make use of the special strengths – entrepreneurial, technological, and managerial – of the private sector while safeguarding public interest and at the same time utilising public strengths in areas such as legal authority, capital asset and procedural strength. The study identifies how the beneficial interactions between the two sectors contribute to improved performance of horticultural SMEs.

2.2.5.1 Benefits of Public-Private Partnerships

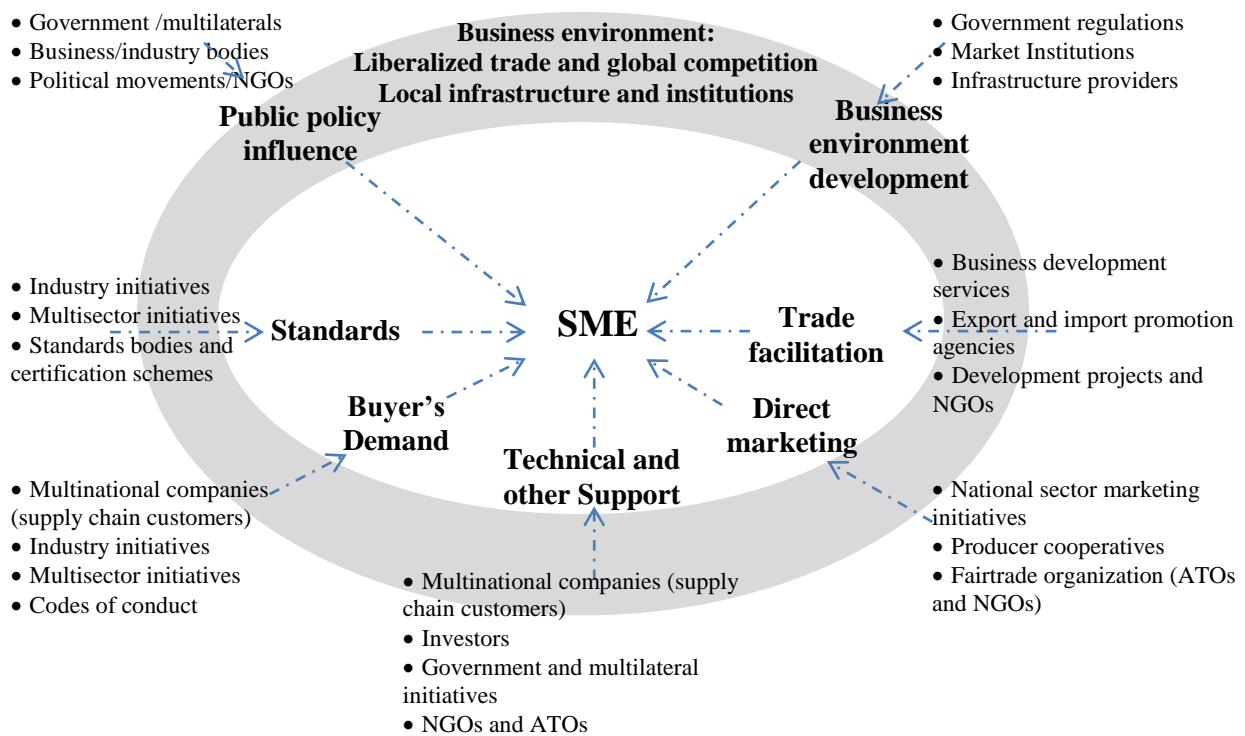
It is argued that Public-Private Partnerships maximise on opportunity and provide optimal solutions where the two sectors bring different opportunities and expertise to the table that help in the management of complex situations and as a result improve performance. PPPs are best suited for activities that require large investment that neither the public nor the private sector is able to provide entirely on its own, which may be a technology or expertise. Mostly, the private sector provides the motivation, expertise and sometimes financial resource while the public sector ensures that public interest is addressed at all times (Nathan Associates Inc., 2004). Small firms are generally more vulnerable than the large ones due to market pressures and as such find it difficult investing in long-term growth strategies.

PPPs are best suitable for activities that require huge investments in terms of technology and proficiency that neither the public nor the private sector is able to supply wholly on its own. It is further argued that PPPs make the most of opportunity and provide most favourable solutions where the two sectors bring all-round opportunities and expertise to the table that play a crucial role in the administration of complex situations and as a result get better performance.

While globalisation was expected to help less skilful farmers, overwhelming evidence indicates the opposite; Goldberg and Pavcnik (2006) observe that the era of globalisation has in fact been a failure for most farmers in developing countries. Although some local support systems still exist at certain levels, most have been removed through the liberalisation process, and as a consequence, sustaining SMEs in horticulture as an instrument or vehicle for economic growth remains a challenge considering that maintaining strong goal competitiveness is vital to the process.

The horticultural subsector is comprised of both big firms that have influence and control of global chains and small firms that currently account for about 95% of the production and 60% of the export but are exceedingly helpless to market shocks. Poon (1993) argues that the public and private sectors often control the business that delivers the product. Thus, teamwork between the private and public sectors in the form of Public-Private Partnership is important to the success of the SMEs. This study therefore establishes the contribution of PPPs in improving SME performance in view of the existing global realities and challenges.

An SME export market prospects study in Tanzania (Ogutu, 2006) indicated that cooperation among SME support institutions helped to leverage resources available to support the sector. The study notes that wherever SMEs have been successful around the world, it has been as a result of public-private cooperation or partnership. Therefore, cooperation or partnership between support institutions to improve the SME sector is essential as shown in Figure 2.2 below.



Source: UNIDO (2006)

Figure 2.2 PPP Support to SMEs

A broad view of these approaches is presented and therefore what is needed to support the SMEs to improve their performance. Each approach is not limited to one kind of organisation: technical support to improve quality and consistency is provided through multinational companies' supplier development processes, although such supplier development is often limited to larger suppliers (UNIDO, 2001); fair trade organisations' partnerships and government and nongovernmental organisations technical assistance programmes.

Organisations need to work through an agreed and well defined framework to achieve synergistic impact, which would mean much higher benefits to SMEs than each could attain on their own. Cooperation is best organised around one coordinating body (UNIDO, 2001).

SME development must encompass improving access to finance, skills, technology, information, sound business practices, legal rights and markets. To achieve this, effective partnerships and intermediaries that are capable of addressing the market failures and institutional constraints currently hindering SMEs from accessing these public goods and business opportunities, need to be put in place. Such partnerships are also essential in helping small enterprises upgrade and integrate into broader production networks and value chains. These partnerships include enhanced enterprise support services and new types of alliances among companies, trade associations, governments, donors, academic institutions and nongovernmental organisations, thus offering great potential for promoting enterprise development (Bekefi, 2006).

2.2.5.2 Public-Private Partnership Approaches

In a presentation given at the World Bank Annual Meeting in Dubai in 2003, the Bank's Vice President, Robert Davies attempts to classify PPP into three categories as outlined in the table below.

Table 2.1 Typologies of Public-Private Partnerships

Type of PPP	Example
<p>Partnerships to promote private sector development – for example in infrastructure such as water management (irrigation), roads, ports and power. Bringing services to the bottom of the pyramid.</p>	<ul style="list-style-type: none"> ▪ SEKEM Group in Egypt engaged in enterprise and agriculture development through which 2,000 employees and 600 farmers are engaged in organic agricultural production. ▪ World Bank Business Partners for Development that supplies reliable drinking water to the slums of Senegal.
<p>Partnerships to promote standards around impacts of business – such as the maximum residue levels (MRLs) demanded by importing countries for agricultural products. Protecting biodiversity, stocks of fish and timber, labour standards, CO₂ emission (carbon miles).</p>	<ul style="list-style-type: none"> ▪ In Vietnam, multinational global footwear companies like Nike, Adidas and international agencies collaborate with the Government and NGOs to raise health, safety and business standards through collective action in Vietnam’s footwear industry that employs 500,000 workers. ▪ EU support to small-scale producers through the COLEACP programme to manage maximum pesticide residue levels through GAP. ▪ Production of quality coffee through improved processing methods. The governments of Ethiopia and Rwanda with support from the Common Fund for Commodities in collaboration with IllyCafé, a coffee corporate with technical assistance provided by CAB International. ▪ In Kenya, Finlay’s Homegrown Kenya Ltd supports small-scale producers’ access to global horticultural markets by assisting them adhere to international standards and achieve economies of scale.
<p>Partnerships to leverage the skills and resources of the private sector in the development of innovative solutions to public problems and concerns that have defeated bureaucracies – such as delivery of healthcare and health promotion, training and access to digital technologies.</p>	<ul style="list-style-type: none"> ▪ In South Africa, IBLF (working with the World Bank) supports the Digital Partnership bringing together global IT corporations Oracle, SAP and Microsoft in a unique collaboration with the Government to provide an integrated package of affordable technology, training and support for schools and community projects. The use of thousands of PCs decommissioned from a small number of companies and refurbished in country, to optimise job creation and a global logistics chain, offer a solution that is scalable and sustainable. ▪ In Poland, the Autokreacja Programme brings together big corporates such as BP, Tesco and Nestle with the Ministry of Labour to provide a training programme targeted at long-term unemployed young adults. ▪ In South Africa, small-scale farmers who have planted Bollgard insect-protected cotton use up to 6 fewer insecticide sprays per season and have seen their crop yields increase 20 – 60% generating significantly more income per hectare than farmers growing conventional cotton (Kirsten and Gouse, 2002).

Source: Modified from World Bank (2006)

2.2.6 Mitigating SME Performance Constraints through PPP

Public-Private Partnerships have become increasingly popular in development policy and practice as a means of addressing issues as diverse as health, education, environment, finance, governance, and agriculture (Fiszbein and Lowden, 1999; Bennett *et al.*, 1999; Buse and Walt, 2000).

Finlays Homegrown Kenya Ltd is a good example of how a PPP arrangement enables Small and Medium Horticultural Enterprises access global markets. Steve Homer of Finlays Homegrown Kenya Ltd in a presentation to UNCTAD in December 2006 summarised their horticultural business as follows, “*Finlays Homegrown Kenya Ltd is all about getting a product from a small farmer (i.e. SME in Kenya) to Marks & Spencer in Marble Arch in the UK in 72 hours. Finlays Homegrown Kenya Ltd is a large business that fills a gap between extension services, the infrastructure gap in Kenya, quite successfully over the last 20 years*” (UNCTAD, 2006).

PPPs have become popular as a way to foster the development of innovations through collaborative R&D (Faulkner and Senker, 1994; Hagedorn and Schakenraad, 1994; Hall *et al.*, 2000; Spielman and Grebmer, 2004). However, many Public-Private Partnership approaches, in a privatisation-like manner, seek to outsource public services to private companies. In contrast, Public-Private Partnerships are understood here as arrangements that support the autonomy of public research organisations by rendering their work more relevant, demand-oriented and efficient.

Development theorists have argued that Public-Private Partnerships present advantages to both public research organisations and private sector entities, and can generate social benefits (Spielman and Grebmer, 2004). Furthermore, some have argued that Public-Private Partnerships evolve in the interface between technological feasibility and the response to

market demands (Vieira and Hartwich, 2002). Viable innovation partnerships can be seen as cooperative arrangements between two or more institutions in the private and public sectors that involve shared ownership and responsibility, joint investment, shared risk taking and mutual benefit. Increasing empirical evidence shows that where partnerships between firms and public research organisations or universities are strong, benefits are derived from quicker information diffusion and product deployment (Osborne, 2000). Public-Private Partnerships allow private enterprises to increase the benefits of innovation. They also provide capital to co-finance government programmes in areas where social benefits can be achieved. Public-Private Partnerships for innovation development may be particularly useful in agricultural chains characterised by out-dated knowledge and technology, and limited research capacities and funding.

The incentive driving public and private agents to enter partnerships is usually the interest in profiting from innovation. Here it is important to distinguish between benefits resulting from the innovation itself regardless of whether it is generated through a partnership arrangement or not. Table 2.1 above has listed some of the benefits that can result from innovation partnerships.

2.3 Related Empirical Research

2.3.1 Roles of the Different Sectors in Public-Private Partnerships

International development approaches have become increasingly multidimensional, involving a number of stakeholders from the public and private sectors including NGOs (Unwin, 2004). The failure of the structural adjustment programmes has meant that different approaches to address development are explored, reigniting the crucial role of government in economic development (Menocal, 2004; Therien, 2002). Government is crucial to the implementation of coordinated, cooperative and holistic development strategies that engage contextually with

unique country-specific institutional systems. Thus, in playing their key role of supporting economic development, governments must work in partnership with the private sector and NGOs (WSSD, 2002). Furthermore, economic reforms must be implemented in accordance with national interests, priorities and strengths. A number of Asian countries including Hong Kong, Singapore, South Korea and Taiwan have become successful by constructing specialist economies through integrated national development strategies that simultaneously brought together institutions within the economy to complement national strategies, leading to rapid industrialisation and economic growth (hiiDunia, 2010).

In horticulture, international production and trade are increasingly organised by specialised firms involved in strategic decision-making and economic network at a global level. The buyers, mostly supermarkets from the developed countries, play a key role in governing the chain due to their size and international market power. This enables them to dictate standards based on quality, food safety and costs, a factor that increases SMEs vulnerability. Fortunately, working with the private sector (big business) and the public sector helps them to address the barriers or threats of entry into global business.

2.3.1.1 Role of the Private Sector

The private sector comprises big business or multinational corporations. They play an important and strategic role in international trade where they create efficient linkages from the farm to market, and among regions, to develop reliable supply chains to deliver trusted, quality products at lower cost and to innovate. They actively manage supply from farming, origination, primary processing and logistics, to secondary processing, marketing, distribution and customer delivery, managing the risks present at each stage. They offer the markets they supply reliability, consistency, trust, traceability and other value-added services.

They also offer storage and processing facilities including transport systems moving goods from farms to the importing countries (Dy, 2011).

2.3.1.2 Role of the Public Sector

The role of the State in economic development is of critical importance. According to Polanyi (2001), markets exist by design and success depends on continuous institutional control and manipulation by a central body. Menocal (2004) further argues that the State has been the only institution capable of providing the infrastructure, power and knowledge to promote the exchange of goods and facilitate economic growth. The State has unparalleled geographical centralisation, monopoly of power and administrative capacity, enabling the implementation of cross-sector, holistic strategies based on unique national structures and assets (Brohman, 1995).

Alongside the emergence of poverty reduction paradigms in the 1990s, with the support of international development institutions, bilateral donors began prioritising State capacity building as a means of constructing economies and implementing pro-poor development strategies. The Government can and will influence the determinants needed to support SME performance for example subsidies, production factors, supporting institutional building including research (ISHS, 2005). A range of government policy structures is thus suitable for creating and sustaining enterprises – from taxation regimes and market-based instruments to consumption policies and changes in the national system of innovation. Policy makers also need to ensure that educational systems provide adequate technical training. They need to support agribusiness and technology incubators, export processing zones and production networks as well as sharpen the associated skills through agribusiness education (Juma, 2011).

2.3.1.3 Role of the NGOs

NGOs and governments have become inextricably connected within international development. NGOs have become facilitators of bottom-up development, through micro-programmes and technical assistance. According to Vandemoortele (2009), insufficient capacity and resources to implement economic development at all levels of the economy legitimises NGOs as facilitators of bottom-up development. They have both the means and flexibility to reach remote communities to address specific issues that the Government lacks the capacity to cover (Yannis, 2001). Consequently, NGOs are widely championed for being facilitators of participatory economic development through their ability to concentrate efforts on small-scale programmes, which ensure the needs of the vulnerable are addressed.

NGOs saturate grassroots development, providing services that become domestic commercial enterprises. For example, expanding NGO micro-credit programmes supply otherwise unobtainable capital to small-scale entrepreneurs, providing the means necessary for many to escape extreme poverty by enabling micro-enterprises to graduate into small and medium enterprises thereby increasing the income of the entrepreneur and creating jobs. Rogerson (2001) advocates NGOs as fundamental providers of capital to micro-entrepreneurs but further argues that sustainability can only come from a combination of access to markets, capital, skills and technical knowledge, which can only be achieved through multidimensional approaches or partnerships requiring government, NGO and private sector cooperation (PPP arrangement).

Streeten (1997) argues that NGOs are in a strong position to provide relevant technical support and training to already established enterprises leading to increased efficiency and productivity, thus creating greater output at lower operation costs. In Kenya, NGOs play an important role in the country's development. During the financial year 2009-2010, NGOs

spent approx. Kshs. 130 billion on projects in various parts of the country (NGOs Coordination Board, 2009). Most projects implemented were in tandem with the Millennium Development Goals and Kenya's Vision 2030.

The report also revealed a low level of collaboration (13 per cent) between the Government and NGOs. This does not augur well for the attainment of MDGs and Vision 2030, especially the social pillars that require joint efforts by government and NGOs. A report on National Validation Survey of NGOs (2009) noted the importance of collaboration between NGOs, Government departments and other organisations in improving livelihoods in the community. More positively, the survey noted that Kshs. 118 million of funding for NGOs was from government agencies. This provides a firm basis for improved partnerships and engagements between business, government and NGOs.

From the foregoing, it can be seen that the PPPs involve government, private sector and NGOs. The latter two groups, having become critical players in the development of SMEs, must therefore not be seen as peripheral to these efforts. They need to be incorporated through formal PPP arrangements embedded in the national structures and monitored and coordinated by an agency that brings all the actors together including the contributory sectors of government. Given the cross-sectoral nature of these issues and the Government's facilitating role, the Government must provide the lead in these efforts as effective strategies require holistic, multi-dimensional and coordinated approaches which engage with institutions across all sectors where bottom-up and top-down approaches complement each other in mutual pursuit to support SMEs growth through the creation of an enabling environment UNIDO, (2006). How the public and private sectors are organised to communicate, consult and cooperate with each other becomes the important issue and hence the thrust of this study.

2.3.2 Public-Private Partnership Experiences

A global review of international models of PPPs shows their wide application with varied experiences (Heiler, 2002; Palmer, 2009). For example, highly industrial countries have benefited from agricultural research and development by both public and private sectors, whereas developing countries, by and large, have relied on less than adequate funding, principally from the public sector. In the future, it is imperative that developing countries invest significantly more public sector funding in agricultural R&D and encourage more private sector investments (Cliver, 2004).

In the Irish situation, skill shortages in the local public and private sectors were considered the main reason for accessing non-local skills via the PPP model. The UK experience with PPP is probably greater than in any other country. There is a mature PPP industry to the extent that UK water companies and consultants have exported their experience in the form of PPP offerings and associated consultancy services. The utilisation of PPP models in the USA is more limited in comparison with the European activity, where the most common funding model used for infrastructure development is by way of bond issues from stakeholder partners (UNDESA, 2003). Australia has also followed closely both variants of the UK model for PPP (Heiler, 2002). Malaysia's experience with PPPs is mixed; whereas toll roads have been developed successfully, water supply schemes that were privatised met with community rejection when the private sector dealt with the customers. The process has however led to considerable innovation in competing proposals. Success seems to be accompanied with high returns on investment, and there has been strong private sector interest (Heiler, 2002).

In Africa, not much has been achieved. Unlike most other African countries where content on government websites is still very little, South Africa's advanced ICT adoption has helped to

form and increase networks by enhancing access to information about the best practices of operation, market prices at different locations and sources of supply of inputs, thereby reducing obstacles to business (Wolf, 2001). In Tanzania, the World Agroforestry Centre has partnered with Unilever and the Government to promote extraction of edible oil from the seeds of the indigenous *Allanblackia* tree on a commercial scale (ICRAF, 2006).

In Kenya, there are few known examples of PPPs but their effects or impacts are not well documented and information on them is not easily available. A few organisations are trying to embrace PPPs to support agricultural development. Traditionally, PPPs have been understood to mean large infrastructure projects in sectors such as energy and transport. According to Eldon (in Business Daily 05 April 2012), alongside what he describes as “hard” PPPs, there is much exciting potential for “soft” PPPs including in education and health, agriculture and water. In agriculture, PPPs often focus on improving supply chains. The Fresh Produce Exporters Association of Kenya (FPEAK) and the Kenya Agricultural Research Institute (KARI) for example have developed a Practical Training Centre (PTC) through a PPP. The Centre seeks to provide the practical skills in production, value-addition and marketing to the entire horticultural subsector. KARI provides research backup while FPEAK handles the practical skills and business information aspects necessary for the efficient operation of enterprises involved in horticulture.

Other examples include SNV, which has partnered with Honey Care Africa to help deliver West Pokot honey onto supermarket shelves, and the Kenya Business Development Services (a USAID-funded programme), Ministry of Agriculture and the Coast Development Authority, which focuses on improving production, processing and marketing of mangoes (KIT, Faida MaLi and IIRR, 2006). East African Breweries through its subsidiary East African Malting’s has been supporting barley farmers grow sorghum in 17 districts in Kenya.

In collaboration with KARI, the initiative includes supplying certified seeds to over 10,000 farmers in semi-arid areas. This approach to inclusive value chains stimulates entrepreneurship and helps to build business competence by small-scale farmers. Kevian is offering farmers extension services to raise production working in partnership with GTZ and HCDA.

2.4 Theoretical Framework

From empirical literature, the study has shown that there exist cases of successful PPP undertakings in different parts of the world at different levels of interaction pertaining to different forms of organisations. However, PPPs exist in implicit circumstances especially where the Government plays the facilitative role. Similarly, in theory, PPP relationships have not benefited from direct enquiry, hence the attendant paucity. It is not lost on this study that PPPs exist against a background of mutual trust and interdependence, where parties to the relationships expect certain benefits to come their way on fulfilling their part of the bargain or responsibility and obligation, as is mostly the case with the public sector.

However, the private sector is also increasingly coming under pressure to provide support as it recoups benefit from society, given its high level of dependence on the natural environment. The private sector needs to fully understand the world around it and the needs of the people upon whom it relies to contribute to well-run business operations. Their actions must pay attention to issues of natural resource depletion, climate change and population demands.

It is also true to say that these parties rarely have an equal stake in terms of commitment and investments. For example, in the case of Small and Medium Horticultural Enterprises and the other parties to PPPs, the former is dispensable and at the mercy of the other partners. Logically, this kind of relationship can be sufficiently premised along the thoughts of the

agency theory. It must be noted though that there is no unified theoretical basis for PPPs but one can draw on the Principal-Agent Theory given the specific nature of risks existing in most PPP projects (PPP Practise and Policy, 2006).

Agency theory is founded on the principle of the relation between two parties – Principal and Agent. The Agent is expected to act in the best interest of the Principal at all times. Based on this study we have three parties: private sector, public sector and small and medium horticultural enterprise. Thus, there subsist two relationships namely:

(i) Public sector and private sector

Public sector provides the private sector with an enabling environment to spur the activities of the private sector hence the public sector expects that the private sector will advance its social agenda of supporting Small and Medium Horticultural enterprises as it would have done. However, this is simply not the case. Varied interest within the private sector and the profit motive hinders the honouring of the agency theory principles.

(ii) Private sector and small and medium horticultural enterprises

Similarly, the private sector engages the small and medium horticultural enterprises to produce on their behalf, through facilitating the value chain. However varied challenges have been evident in this arrangement that have indicated that small and medium horticultural enterprises tend to pursue their own benefit rather than work also to achieve benefit for the private sector.

A number of authors have attempted to explore risk sharing among individuals or groups (Arrow, 1971; Wilson, 1968). This literature described the risk-sharing problem as one that arises when cooperating parties have different attitudes toward risk. This problem is also identified within the Public-Private Partnership framework. The divergent goals of the partnership reflect the different levels of risk acceptance. Agency theory broadened this risk-

sharing literature to include the so-called agency problem that occurs when cooperating parties have different goals and division of labour (Jensen and Meckling, 1976; Ross, 1973). Specifically, agency theory is directed at the agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory attempts to describe this relationship using the metaphor of a contract (Jensen and Meckling, 1976).

The agency theory helps us understand the relationships that subsist in a Public-Private Partnership. The theory is concerned with resolving two problems that can occur in agency relationships. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify that the agent has behaved appropriately. The second problem is the problem of risk sharing that arises when the principal and agent have a different attitude towards risk. The problem here is that the principal and the agent may prefer different actions because of the different risk preferences.

The unit of analysis is the contract governing the relationship between the principal and the agent. The focus of the theory is on determining the most efficient contract governing the principal-agent relationship given assumptions about people (e.g. self-interest, bounded rationality, risk aversion), organisations (e.g. goal conflict among members) and information (information as a commodity that is purchasable). The agency structure is applicable in a variety of settings, ranging from macro level issues such as regulatory policy to micro level such as impression management and other expressions of self-interest. Most frequently, agency theory has been applied to organisational phenomena such as compensation (Conlon and Parks, 1988; Eisenhardt, 1985), acquisition and diversification strategies (Amihud and Lev, 1981) and board relationships (Fama and Jensen, 1983; Kosnik, 1987).

Table 2.2 Theoretical Framework

Key Idea	Principal-agent relationships should reflect efficient organisation of information and risk-bearing costs
Unit of analysis	Contract between principal and agent
Human assumptions	Self-interest; bounded rationality; risk aversion
Organisational assumptions	Partial goal conflict among participants; efficiency as the effectiveness criterion; information asymmetry between principal and agent
Information assumptions	Information as purchasable commodity
Contracting problems	Agency (moral hazard and adverse selection); risk sharing
Problem domain	Relationships in which the principal and agent have partly differing goals and risk preferences (e.g. compensation, regulation, leadership and impression management)

Source: Eisenhardt, (1989)

Overall, the domain of agency theory is relationships that mirror the basic agency structure of a principal and an agent who are engaged in cooperative behaviour but have divergent goals and attitudes toward risk. An investigation of PPP support would therefore require a derivation of constructs from agency theory to be modelled on the basis of the priori relationship with the SME performance. For this purpose, the constructs are regulation, compensation, leadership and impression management. Within the context of this study, the operationalization of these constructs yielded the variables of regulation of production activities, product demand, appropriate technology, provision of inputs, training and development and water resource management. Intervention strategies may include PPP, which are meant to address inefficiency in the SME sector and inadequate resources that are essential for optimal performance. Success achieved is mostly attributed to support from various stakeholders to the SMEs in terms of policy, the availability of resources such as finance, good infrastructure, skills, appropriate technology and an enabling macro-economic environment (Bekele and Worku, 2008).

Table 2.3 Operationalization of Constructs of Agency Theory

Constructs from Agency Theory Modelled	Operationalization Within Context of the Study
Regulation	Regulation of production activities
Compensation	Product demand Appropriate technology Provision of inputs
Leadership	Training and development
Impression management	Water resource management

Source: Adapted from Eisenhardt (1989)

2.4.1 Regulation of Production Activity

Globalisation presents SMEs with both opportunities and tremendous challenges, as SMEs struggle to meet the higher quality standards, to get their produce to the supply chain and to get a fair share of the profit stream. They are thus subjected to strict quality standards (Global GAP) and legislation imposed by the export markets, presenting a costly barrier to trade. The SMEs are incurring costs associated with accreditation schemes like Fair-trade.

The challenges of quality regulation were highlighted in a Sainsbury's conference (2010) with Small and Medium Horticultural Enterprises and stakeholders in Africa. Waste and postharvest loss was identified as a major challenge in a climate where there is a need to increase production. Estimates suggested that as much as 60% of produce is lost through lack of postharvest technologies and knowhow, but in addition to that there are significant 'losses' in the supply chain into the retailer simply due to produce not meeting retailers requirements (e.g. beans being the wrong size or shape). The reduction in the level of waste through better breeding, crop management, harvesting and logistics would increase the SMEs (producers) margins and contribute to the sustainability of the food supply chain. It should be noted that regulation of production activities increases the production costs of SMEs while straining their limited resources further hence the negative effect on SME performance.

2.4.2 Product Demand

There is a growing interest for SMEs to access markets and increase their income through involvement in the supply chains of domestic and international markets with a demand for their goods. A number of large multinational companies, mostly global supermarket chains, have developed supply chains involving smallholder farmers. Development of local SMEs is beginning to be recognised as important, as national and local private sector actors begin to integrate the outputs of smallholder farmers into their supply chains. Despite this, the outcomes of such systems are far less widely documented, thereby presenting a huge opportunity for learning and scaling up best practice in these areas.

There are considerable obstacles to the expansion of supply chains including the challenges of successfully aggregating smallholder farmer's outputs, guaranteeing the quantity and quality of their outputs, and accessing the kind of inputs and wider finance that will mitigate the risk and delays common to this kind of venture. Thus, PPP efforts dedicated to creating demand for SMEs' produce result in compensating the SMEs efforts. Hence, the PPP intervention that focuses on the creation of produce demand has a positive relationship to SME performance.

2.4.3 Appropriate Technology

Technology and infrastructural support is defined as facilities, structures, associated equipment, services and institutional arrangements that facilitate the flow of agricultural goods and services and ideas. The ability of SMEs to continue to respond to the future increase in demand will be highly dependent on the increased application of existing technologies as well as exploitation of new and innovative technologies (Dennis *et al.*, 2009).

This represents a foundational base for applying technical knowledge in sustainable development by promoting agricultural trade and helps integrate economies into world markets. Assistance with research, new technology development and infrastructure investment, logistics and cool chain is therefore critical. This includes the need for access to new technology and innovation in the food processing chain, innovation in packaging and processing technologies. For example, investment in more properly equipped and structured pack houses would make a significant contribution to reducing waste in the food chain. The adoption of the appropriate technology by the SMEs is expected to result in better SME performance hence a positive relationship.

2.4.4 Production Inputs

It has been well recognised that horticultural production is capital intensive and high risk thus the need to have support for the SMEs in the sector with production inputs. Lack of it hinders the potential for market-oriented production and affects farm income. Success depends on the orientation of production to meet market demand and on the removal of production constraints in form of supply of quality inputs. Quality inputs such as seed, fertilisers and pesticides are not always available from reliable sources. In addition, production inputs required are subject to a number of constraints such as water availability and skills to use them on the part of the SME owners. The enforcement of supportive and conducive policies is also not in place to encourage production. Thus the need to improve the input supply system for the farmers and provide them with the right and sufficient quantities and when it is actually needed is important.

2.4.5 Training and Skills Development

Building human capacity that focuses on improving farmers' skills and abilities to create livelihood out of agriculture rather than simply subsistence is important to the development

of SMEs. Schools should include agriculture as a formal and compulsory subject from the earliest childhood experience to university. They should consider agriculture an important area for investment and work to develop students' agricultural and technical knowledge at primary and secondary levels. Universities should also consider agriculture an important research domain and devote staff and resources to developing new agricultural techniques that are relevant to their populations and ecosystems. The increasing gap that is occasioned by failure to emphasise on providing formal schooling with focus on agribusiness results in low capacity to support skills development for the SMEs. Training programmes must focus on social, entrepreneurial, industrial and commercial skills that are essential for the successful management and development of SMEs. Many more SMEs will be brought into the supply chain, which in turn requires training and skills development to ensure sustainable food supply chains for the future. The cost associated with training, developing and overcoming logistical issues are high, and this is the area where support is needed. There is need to work with the private sector to bring new small-scale producers in as part of the global supply chain. Continued support for the SMEs through training and skills development provides a basis to improve operational efficiency and effective management. Accordingly, it is therefore expected that training and skills development will have a positive effect on SMEs performance.

2.4.6 Water Resource Management

Constant supply of horticultural produce to meet market demand (quality, consistency and continuity of supply) can only be guaranteed by irrigation. Therefore, water availability is an important factor in horticultural production. In addition, future production must focus on the challenge of using less water than is currently being used today.

Given the increasing significant role that irrigation will play in the future, SMEs will need massive public and private support to address the problems of water shortages. The Kenya National Irrigation and Drainage Policy (2009) recognises that this is a far bigger issue that could not be addressed by individual companies alone but would require collaborative effort, shared research and financial support to implement programmes aimed at safeguarding natural resources for the future. A point in case is an initiative that has been undertaken in relation to the management of water resources around Lake Naivasha. Whilst being an excellent and highly innovative approach to managing resources, it is clear that it is not sustainable in the long term for one organisation to try to maintain this singlehandedly and it therefore requires greater external support.

In water resource management, impression management occurs when the principal (government and its agencies) acts in a manner suggesting it is driven by the interest of the agent (SMEs) while in the real sense does not give much thought about the consequences of its actions on the agent. The proxy for impression management is water resource management which if purely pursued as an end to itself may lead to great losses for SMEs hence the negative effect on SME performance.

Table 2.4 Summary of the Theoretical Model

Constructs according to Agency theory	Variable	Relation to SME performance
Regulation	Regulation of production activities	Dependent
Compensation	Produce demand	Dependent
	Appropriate technology	Dependent
	Production inputs	Dependent
Leadership	Training and skills development	Dependent
Impression management	Water resource management (Irrigation)	Independent

Source: Survey Data (2011)

2.5 Conceptual Framework

From the foregoing literature review, the study derives its conceptual framework based on ideas modified from Eisenhardt, 1989; Curran, 1999; Tschirley *et al.*, 2004; Gibbon and Ponte, 2005; Chong, 2008 and Jamil and Mohamed, 2011. SME performance is the dependent variable, poor market access is the independent variable while Public-Private Partnership support was identified as the intervening variable as shown in Figure 2.3 below.

The SME performance variables were identified as profitability and growth of the SMEs. The market access variable was identified as poor market access measured in terms of level of access and market share. PPP intervention was identified as regulation of production activity, product demand, production inputs, appropriate technology, training, skills development and water resource management. The independent variable directly influences the dependent variable and the dependent variable when intervened by the intervening variable. It can be seen that there is a relationship between market access and SME performance intervened by PPP (Spielman and Grebmer, 2004). The performance of Small and Medium Horticultural Enterprises – the dependent variable for this study – can be improved through enhanced market access with effective interactions between the public and private partnership.

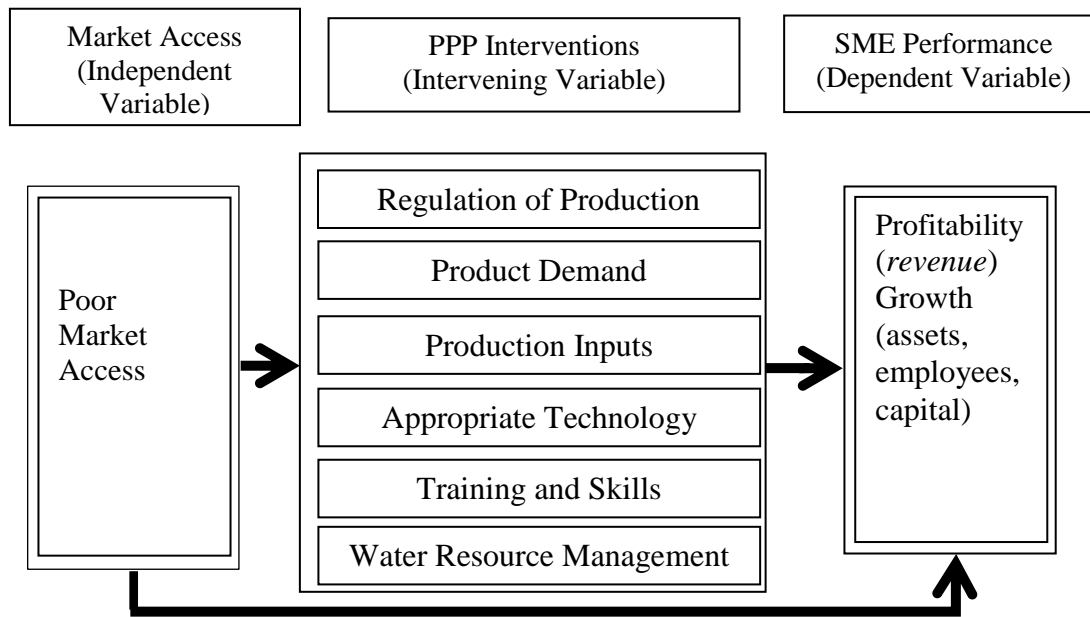
The relationship between SME performance (SMEP), market access (M) and PPP intervention (P) can be summarised as follows:

SMEP = function (Market Access)

Improved SMEP = f (Improved Market Access)

Improved Market Access = f (Market Access + PPP Intervention)

Figure 2.3 Conceptual Framework



(Modified from intensive review based on Eisenhardt, 1989; Curran, 1999; Tschirley *et al.*, 2004; Gibbon and Ponte, 2005; Chong 2008 and Jamil and Mohamed 2011)

2.6 Chapter Summary and Gaps Filled by the Study

In this chapter, a review has been carried out on both theoretical and empirical literature on market access, the intervention by Public-Private Partnership and hence the overall influence and contribution to SME performance. The aim was to identify a gap in terms of knowledge of Public-Private Partnership interaction and their support on improving market access for SME development in horticulture.

Although Public-Private Partnership has been established as a driver to economic development, literature review reveals that PPP is yet to achieve much within the horticultural subsector in Kenya. PPP intervention efforts are patchy and have not been systematically documented. PPP interaction as an area of study is complex and therefore the contribution is not clearly understood especially given the management of risk involved between collaborating partners. In exploring the contribution of PPP, the PPP practice and regulatory policy in Kenya (Ong'olo, 2006) is silent on their influence and therefore contribution to agriculture in general and horticulture in particular.

The essence of horticulture in economic development and performance their constraints in the sector are discussed. An important theme that is emerging is the benefits arising from improved performance with PPP support. The result of this study is information that enables a better understanding of the contribution of PPPs by various stakeholders in the development of Small and Medium Horticultural Enterprises by providing measures that could be used in PPP interventions to stimulate SME growth and to determine the relevance of PPP practices.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out the concise methods and courses of action that were followed in conducting this research. This was achieved in this chapter by describing the strategy and procedures that were employed in the data collection efforts. In addition, the population dimensions and specific sampling techniques are described. Following this, the primary research instruments were reviewed and the measurement of variables and analytical methods presented.

3.2 Research Design

A descriptive survey design was used because it provides important information regarding members of a group, including personal factors, events and situations as outlined in the conceptual framework and in line with the objectives of the study. Specifically, by gathering data on a large enough groups of people, a researcher can describe the average member or the average performance of a member of the particular group being studied (Marczyk *et al.*, 2005). In this case, the descriptive survey when applied to SMEs who benefited from PPP, allowed the researcher to describe the nature and form of PPP support (Sekaran, 2006).

Further, a correlational cross-sectional survey design was employed with the aim of examining the relationship between SME performance (the dependent variable), poor market access (the independent variable) and PPP intervention (the intervening variable). The study sought to ascertain respondents' perspectives and experiences. The cross-sectional survey is the most commonly used research method in social research (Amin, 2005) since it produces data that permits the establishment of causal relationships (Sarantakos, 2005).

This research employed a mixed methodology approach using quantitative and qualitative design (Creswell, 2003) which is highly grounded in the philosophy of social science literature. The quantitative data was to assist in establishing the relationship between PPP intervention or support and SME performance. The research methodology also relied on qualitative data where the body of data consisted of texts and narration to help in examining the sources and nature of PPP support.

This research was executed in three stages. First, key variables were identified and operationalized then used to develop the questionnaire and tested through the pilot. Second, the administration of questionnaire to respondents was done. The third stage involved analysis of qualitative and quantitative data collected. Based on the theoretical review, six measures were identified to determine the PPP intervention variable (regulation of production activity, product demand, production inputs, appropriate technology, training and skills development and water resource management). Similarly two measures were identified to measure SME performance (profitability and growth) and two for poor market access (level of access and market share). These were captured in the questionnaire as further detailed in section 3.2.1 on the operationalization of variables. In addition, other data collection tools such as interview guides were also used.

3.2.1 Operationalization of the Key Variables

The overall objective of this research was to establish the influence of Public-Private Partnership on the relationship between market access and performance of small and medium horticultural enterprises in Kenya. The study identified the PPP constructs based on theoretical review in terms of regulation of production activities, compensation, leadership and impression management as summarised in Table 2.3. The PPP constructs were operationalized into PPP interventions as intervening variables namely regulation of

production activity, product demand, appropriate technology, production inputs, training and skills development, and water resource management, with SME performance as the dependent variable. The latter was identified in terms of two key measures: SME's profitability and growth. The independent variable was poor market access, measured in terms of level of access and market share as reviewed empirically in Chapter 2. These variables have been explained further in the sections below.

3.2.1.1 Market Access

Market access was studied in two perspectives, with the first being the level of access. In the context of the horticultural SMEs, this was referred to as the value of the product to the range of customers who influence uptake where the SME is able to obtain a desired price. Based on this, the level of market access was measured on a 5-point Likert scale ranging from 1 (very high access) to 5 (very low access). The second aspect was based on the nature of competition and the share of market that the SME controls. The market share in this case was defined as the proportion of total volume produced and sold as compared to the other SMEs in the production region. This was also measured on 5-point Likert scale ranging from 1 (very large) to 5 (very small).

3.2.1.2 PPP Intervention

PPP intervention was studied from six perspectives as identified in Table 2.3. These were: regulation of production activity, product demand, production inputs, appropriate technology, training and skills development and water resource management. In the horticultural industry, regulation was identified as the imposed guidelines on production. This was measured through two ways: challenges that are faced in meeting production standards and whether support is given to meet quality constraints.

The product demand was measured through the importance of the private and public sectors helping to provide support to access export markets. Appropriate technology was measured through support SMEs received and its relevance to their business operations. The production input was measured in terms of adequacy and timely supply of inputs. Training and skills development support was measured by rating the relevance and the role of private and public sector in providing support. Lastly, water resource management was measured in terms of level access and support to the SMEs by the private and public sectors. The measurement of the PPP variables was on an interval scale.

3.2.1.3 SME Performance

SME performance was measured in terms of profitability and growth. The sensitivity in disclosing financial records as mentioned in the study limitation resulted in the profitability variable being measured in rating through a 5-point Likert scale – highly profitable (1) and not highly profitable (5) – rather than in monetary terms. Growth was measured in terms of rate of growth – very fast growth (1) and very slow growth (5) – in relation to the growth in working capital at start-up and current in addition to the number of employees. The measurement of SME performance variables was on an interval scale.

3.2.2 Study Locale

The study locale was limited to Naivasha, Naro Moru, Meru, Kathiani, Mwea, Narok, Loitokitok, Ol Kalou, Makuyu, Molo, Rumuruti and Mweiga. These were the main areas for horticultural production identified for the study based on regional segmentation used by Finlays Homegrown Kenya Ltd as indicated in Appendix III. However, these limitations did not affect the findings of the study, which would be generalised to Small and Medium Horticultural Enterprises in Kenya.

3.3 Target Population

The target population comprised of 941 small and medium horticultural enterprises working with Finlays Homegrown Kenya Ltd. These comprised the unit of analysis for the study.

3.4 Sampling Procedures and Sample Size

A multi-stage sampling procedure was applied to the appropriate study sample. The process involved purposive sampling technique, simple random sampling and sample size determination followed by identification and then selection as detailed below.

3.4.1 Sampling Procedure

Finlay's Homegrown Kenya Ltd was purposively sampled from 36 firms obtained from FPEAK database (refer to Appendix IV) as duly registered horticultural producers and exporters in Kenya as at December 2011. As the largest horticultural enterprise in the country (HCDA, 2007; FPEAK, 2009), Finlay's Homegrown Kenya Ltd was selected because it is the largest producer and processor of horticultural produce (flowers and vegetables) for export.

Finlay's Homegrown Kenya Ltd is an international company spanning Africa, Europe and South America with a turnover of over USD 350 million and over 10,000 employees worldwide. The company is the leading supplier of value-added cut flowers and vegetables to UK supermarkets. The company has been in existence since 1982 and has today invested more than USD 100 million in the production and packaging facility in Kenya. The company produces about 600 million flowers sold annually and 40% of the 30,000 tonnes of prepared and pre-packaged vegetables sold in the UK. With a staff of 7,000 in Kenya alone, the Group owns companies in Kenya, four in UK, one in Holland and one in South Africa, with €500 million turnover. It produces one million packs of vegetables for UK supermarkets per week

and 0.5 million bunches of flowers. Due to technology and excellent logistical support, everything moves through the business in 72 hours.

The study also purposively sampled the regions in which Finlay’s Homegrown Kenya Ltd has a network of SMEs to support its operations. These were in Naro Moru (1), Meru (236), Kathiani (9), Mwea (28), Narok (23), Loitokitok (112), Ol Kalou (240), Makuyu (35), Molo (75), Rumuruti (54) and Mweiga (128) giving a total of 941 SMEs. This distribution is indicated in the map available in Appendix III.

For the random sample, the K^{th} term was used to determine the respondents for each sample; for example in Ol Kalou with a total of 240 SMEs, every 10th was selected giving a total sample of 24 SMEs included as respondents in this study. A sample must at least be 10% or more in order to be credible (Emory 1985; Mugenda and Mugenda, 2003); the author therefore felt that a sample of 10% is acceptable and chose this for the study. However, in the regions where the population was less than 10, then one SME was sampled.

Table 3.1 Sampling Grid

Region	Total Number of Farmers	Sample
Naromoru	1	1
Meru	236	24
Kathiani	9	1
Mwea	28	3
Narok	23	2
Loitokitok	112	11
Ol Kalou	240	24
Makuyu	35	4
Molo	75	7
Rumuruti	54	5
Mweiga	128	13
Total for Survey	941	95

3.4.2 Sample Size

As shown in Table 3.1, a sample of 95 was drawn from 941 Small and Medium Horticultural Enterprises that partner with Finlays Homegrown Kenya Ltd, with the assistance of field managers and technical assistants. This is consistent with Gupta (2005) who says a sample size of between 30 and 500 is appropriate for most research. According to Kothari (2001), the optimum sample is one that fulfils the requirements of efficiency, representativeness, reliability and flexibility.

3.4.3 Criteria for Inclusion

The criterion for inclusion was that the horticultural SME must be working with Finlays Homegrown Kenya Ltd in regular production, and the respondent must be either the owner or manager. This is in line with Gupta (2005) that two aspects affect the quantity of information obtained in a sample, which causes inference to be necessary. This is the size and possible variation contained in the data.

3.5 Research Instruments and Procedures

Qualitative and quantitative approaches to data collection were adopted and various data collection techniques utilised. Questionnaires were used.

3.5.1 The Questionnaire

Primary data was collected from the field using questionnaires as the primary research instrument. The questionnaire was administered to Small and Medium Horticultural Enterprises owner/managers by the researcher and was managed personally. The questionnaire contained both closed and open-ended questions (Appendix I). It had six sections according to the variables of study: Section A had information on SME

owners/managers; Section B on SME characteristics; Section C on sources of support for the SME s; Section D on nature of support that the SME s received; Section E on PPP intervention variables; Section F on SME performance variables and Section G on market access. The questionnaire was preferred as it can be interpreted in the same way by all respondents thus achieving consistency (Saunders and Lewis, 2003), and data collection using questions is easier to analyse (Coopers and Schindler, 2001).

The sources of data were important to identify after operationalizing each of the variables. According to Diamantopoulos and Schlegelmilch (1997), there are different scales of measurement such as nominal, ordinal and interval (cited by Saunders and Lewis 2003). Nominal equates to descriptive, ordinal to ranked order data while interval is used when responses to various items measure a variable that can be tapped on a 5-point or more scale. The summary of the variables, their sources and the section of the questionnaire where they are located are indicated in table below.

Table 3.2 Description, Sources and Operationalisation of Variables

Variables	Source of Data	Operationalisation in the Questionnaire	Type of scale
SME Owner/Manager characteristics	SME Manager	Section A	Nominal
SME characteristics	SME Manager	Section B	Nominal
Sources of support for SMEs	SME Manager	Section C	Nominal/Ordinal
Nature of Support SMEs receive	SME Manager	Section D	Ordinal/Interval
Public-Private Partnership Interventions	SME Manager	Section E	Ordinal/Interval
SME Performance	SME Manager	Section F	Ordinal/Interval
Market Access	SME Manager	Section G	Ordinal/Interval

Source: Survey Data (2011)

3.5.2 Data Collection Procedures

The major objective of the study was to establish the influence of Public-Private Partnership (PPP) on the relationship between market access and performance of small and medium horticultural enterprises in Kenya. PPP intervention was identified as the intervening variable and SME performance as the dependent variable. To do this, there was need to identify valid and reliable measures of the variables; this was done through a literature review in Chapter 2. Research instruments in the form of questionnaires were constructed. Prior to using the questionnaire to collect data, it was pre-tested in order to refine it and verify that all variables were included. The purpose of the pilot test was to refine the questionnaire to ensure consistency and validity of data collected and to eliminate problems in coding data.

Pilot testing was conducted in Mwea where nine SMEs were selected for participation in the pilot study. The identified subjects in the pilot were not subjected to the main study. The pilot sought to pre-test the research instrument and ascertain whether the sampling frame and technique were effective. The questionnaire was tested for effectiveness and the data collected for reliability. Two research assistants were identified who had prior knowledge and experience of the horticultural subsector in the study locale. The research assistants participated in the pretesting exercise as part of the practical training.

3.5.3 Data Preparation and Processing

Before embarking on data analysis procedures, there was need to prepare the collected data to enable the eventual analysis. Validation and checking was done after the questionnaires were returned from the field. There was need to check the responses for clarity, legibility, relevancy and appropriateness of the information contained in them. Editing was done to identify the errors and omissions committed and to make appropriate corrections where possible. Further analysis was done for consistency and completeness of responses and

incomplete responses were discarded. Coding was done by assigning numbers to questionnaires based on locale of the respondents so that responses could be grouped into some categories. After completing data cleaning, the questionnaires were entered into an SPSS (version 17) data editor with their respective variable names and labels.

3.5.4 Validity and Reliability Tests

It was important to ensure that each research instrument that had been developed to measure a particular concept was relevant. Two major groups of tests were adopted for this purpose.

3.5.4.1 Validity Test

Validity is the extent to which a test measures the accuracy and truth of the data and findings produced in relation to the concepts that it claims to measure. It is vital for a test to be valid in order for the results to be accurately applied and interpreted.

From the pilot test result and discussions, 35 items out of 45 items were valid. The validity index was approximately 0.8 which compares very well with 0.7. Amin (2005) postulates that if the content validity index is greater than 0.7, it means that the questions are relevant to the study variables. The validity of the instrument was confirmed since similar measures have been used by earlier research (Chen *et al.*, 1998 and Liñán *et al.*, 2006).

3.5.4.2 Reliability Test

The tendency toward consistency found in repeated measurements is referred to as reliability (Saunders and Lewis, 2003). Mitchell (1996) outlines three common approaches to assessing reliability test: internal consistency, alternative form and comparing the data collected with other data from a variety of sources. Although the analysis for each of these is undertaken after data collection, they need to be considered at the questionnaire design stage.

Internal consistency involves correlating the responses to each question in the questionnaire with those to other questions in the questionnaire. It therefore measures the consistency of responses across either all the questions or a sub-group of the questions from your questionnaire. There are a variety of methods for calculating internal consistency, of which one of the most frequently used is Cronbach's alpha (Mitchell, 1996 and Field, 2005).

Cronbach's alpha coefficient was preferred since it is widely used in social management sciences research (Mugenda and Mugenda, 2003; Sekaran, 2006). An average of inter-correlations among the independent and dependent variables is computed and a value of Cronbach's alpha coefficient of 0.70 or closer to 1 implies that data collected is reliable.

According to George and Mallery (2003), the following rules of thumb apply on determining the reliability of the measuring instrument: 0.9 excellent, 0.8 good, 0.7 acceptable, 0.6 questionable, 0.5 poor and less than 0.5 unacceptable. While increasing the value of alpha is partially dependent upon the number of items in the scale, it should be noted that this has diminishing returns (Gliem and Gleim 2003). Thus for the researcher, items beyond fourteen resulted in diminishing returns. An alpha of 0.8 is probably a reasonable goal while a high value for Cronbach's alpha indicates good internal consistency of the items in the scale; it does not mean that the scale is unidimensional (Gliem and Gleim 2003). The Cronbach's alpha coefficient was 0.8 implying good internal consistency of items.

To obtain a clearer picture, reliability tests for each study variable were tested using the same method. Cronbach's alpha reliability coefficients are presented in Table 3.3 below.

Table 3.3: Reliability Test Results for the Various Measures

Measures	Number of Items	Cronbach's alpha coefficient
SME growth	6	0.83
SME profitability	2	0.84
Level of market access	2	0.78
Market share	3	0.79
Regulation of production activity	2	0.76
Product demand	2	0.75
Production Inputs	2	0.79
Appropriate technology	2	0.76
Training and skills development	3	0.93
Water resource management	3	0.77
Total number of items	27	0.80

3.6 Data Analysis

This section describes the techniques used in the data analysis for each objective and why such techniques were preferred.

The first objective was to document the sources of the Public-Private Partnership support that Small and Medium Horticultural Enterprises receive, and this entailed identifying the general sources of support and classifying them depending on who provided support. Descriptive statistical analysis was then used to analyse that data, which was presented using frequency distribution, percentages, charts and tables.

The second objective was to document the nature of support that SMEs in horticulture are given, and this involved identifying the nature, and rating the support on a 5-point Likert scale. This data was then coded into computer software (SPSS version 17) and descriptive statistical analysis then used to analyse the data. Data was presented using frequency distribution, percentages, charts and tables.

The third objective was to determine the relationship between market access and the performance of the horticultural SMEs. The market access variables were identified as level of access and market share, which were measured on a 5-point Likert scale. Similarly, horticultural performance variables were identified and measured in terms of profitability and growth. Null hypotheses were formulated and tested using Chi-square test of independence at 5% level of significance.

The fourth objective was to determine the relationship between Public-Private Partnership (PPP) support and the performance of the horticultural SMEs. This entailed using the SME performance variable identified in objective three and PPP support variables including regulation of production activity, product demand, production inputs, appropriate technology, training and skills development and water resource management. Null hypotheses were formulated between the horticultural SME performance variables and PPP support variable and tested using Chi-square test of independence at 5% level of significance.

Lastly, the study sought to determine the relationship between market access and the performance of the Small and Medium Horticultural Enterprises when intervened with Public-Private Partnership (PPP) support. This involved formulating null hypotheses using the market access variables and PPP support variables. These were tested using the Chi-square test of independence at 5% level of significance.

3.7 Ethical Considerations

Informed consent was obtained from the respondents before administering questionnaires and confidentiality maintained throughout the study, and the respondents were not discriminated against. Permission to carry out the research was obtained from National Council for Science and Technology, and authorisation obtained to administer the survey questionnaires to the SMEs from Finlays Homegrown Kenya Ltd.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

In this chapter, empirical findings of the study are presented using descriptive and inferential statistics. The chapter covers the response rate, characteristics of the sample, Public-Private Partnership concepts and the relationship between PPP support and the performance of Small and Medium Horticultural Enterprises in Kenya. The findings are then discussed based on the objectives stated in section 1.3.1.

4.1 Response Rate

The response rate for the study was 100% based on 95 responses. The researcher gave out 95 questionnaires which was the sample size for SME managers in 11 regions and as it was face to face, all the respondents returned their questionnaires for analysis.

4.2 Characteristics of the Sample

Sections 4.2.1 and 4.2.2 present the characteristics of the SMEs studied and SME managers respectively.

4.2.1 Characteristics of SMEs

The characteristic of the sample SMEs under study covered, the age of SMEs, how long they had partnered with Finlay's Homegrown Kenya Ltd, if they had partnered with other companies, the size of land under production and the form of business. Frequency distributions were obtained and are presented as tables. Table 4.1 presents results on the duration in which SMEs have been in business; majority of the SMEs (60%) had been in

horticultural business for six years and above and only 1% had been operation for a year. Of the 95 respondents, 36% had been in business for 6-10 years, 30% for 3-5 years, and 24% for more than 10 years while 9% and 1% had been in business for 1-2 years and less than a year respectively. Most of the SMEs had been in business for over three years, that is, close to 90% clearly surpassing the survival rate of SMEs. The success and survival of the study SMEs can be attributed to the PPP support that is provided.

Table 4.1 Distribution of Duration in Business of Sampled SMEs

Duration in years	Frequency	Percentage	Cumulative %
<1 year	1	1.1	1.1
1-2 years	9	9.5	10.6
3-5 years	28	29.5	40.1
6-10 years	34	35.8	75.9
>10 years	23	24.2	100
Total	95	100.0	

Source: Survey Data (2011)

Table 4.2 gives results on the annual production of SMEs. It can be observed that 31.6% of the SMEs were producing less than 5,000 tonnes; 25.3% between 5,000 and 10,000 tonnes; 32.6% above 10,000 but less than 45,000; while only 10.5% produced above 45,000 tonnes yearly.

Table 4.2 Annual Production of Sampled SMEs

Annual Production (tonnes)	Frequency	Percentage	Cumulative %
<5,000	30	31.6	31.6
5001 – 10,000	24	25.3	56.9
10,001 – 45,000	31	32.6	89.5
45,001 – 100,000	5	5.3	94.8
100,001 – 150,000	4	4.2	99
>200,000	1	1.1	100
Total	95	100.0	

Source: Survey Data (2011)

From Table 4.3, it can be seen that majority (61.1%) of the SMEs had land under production of between 1 to 5 acres, 15.8% had 5 to 10 acres, 2.1% had more than 20 acre, 10.5% had 11 to 20 acres and another 10.5% had less than 1 acre.

Table 4.3 Distribution of Land Under Production of Sampled SMEs

Land Under production (Acres)	Frequency	Percentage
<1 acre	10	10.5
1-5 acres	58	61.1
5-10 acres	15	15.8
11-20 acres	10	10.5
> 20 acres	2	2.1
Total	95	100.0

Source: Survey Data (2011)

These findings were not consistent with Ellis (1993), who argues that with respect to social efficiency, small farms appear to be more efficient than larger ones. However, given the fact that most of these farms are family-owned and rely on family labour, it can be argued that farm size did not necessarily imply low productivity. Horticulture in itself is labour-intensive so by utilizing labour-intensive production methods, small farms maximise social utility and hence are socially efficient. Family management and supervision can result in more productive inputs (e.g. labour) and increased outputs per unit of input. However, this should reach an optimal point, which will depend on the size of the household and farm operation (Bardhan, 1973; Feder, 1985; Williamson, 1985; Eswaran and Kotwal, 1986; Taslim, 1989).

The researcher observed that it is through family management that these SMEs are able to overcome challenges that related to start up. They are able to pull together funds for production as well as share facilities and services that are mandatory for production. They share structures such as the produce shed, chemical storage and spraying facilities. This has an overall effect of economies of scale with little or no costs incurred due to underutilised facilities.

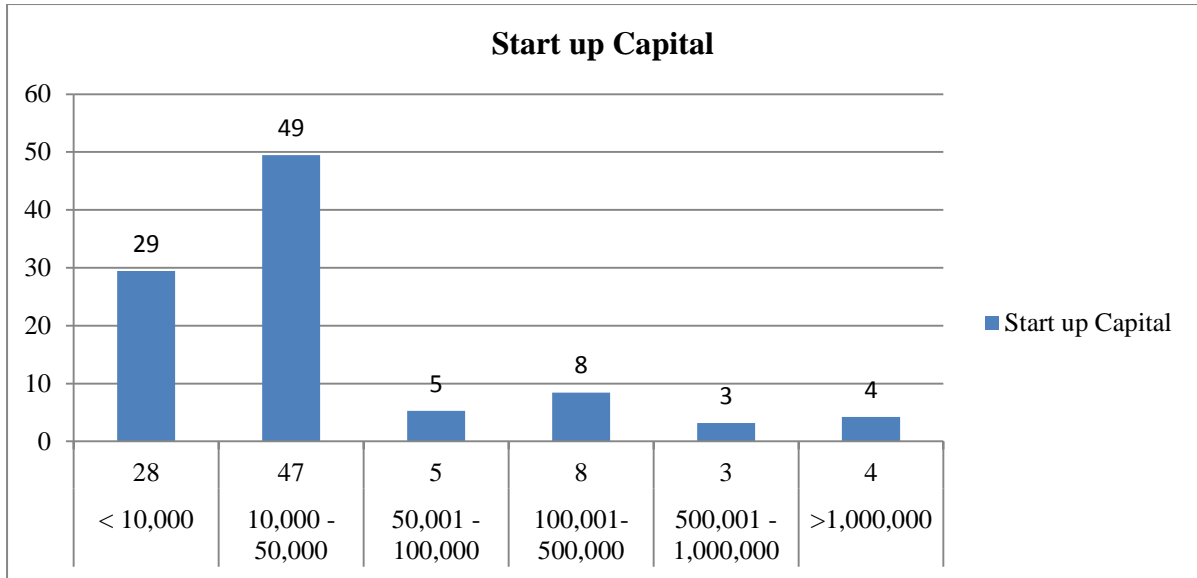


Figure 4.1 Start-Up Capital

Figure 4.1 presents results on start-up capital (Kshs.) for the horticultural SMEs. Most of the SMEs (49%) had a start-up working capital of between Kshs. 10,000 and 50,000, followed by 29% at less than Kshs. 10,000. Only 3% and 4% of the SMEs had start-up capital of between Kshs. 500,001 and 1,000,000 and above Kshs. 1,000,000 respectively.

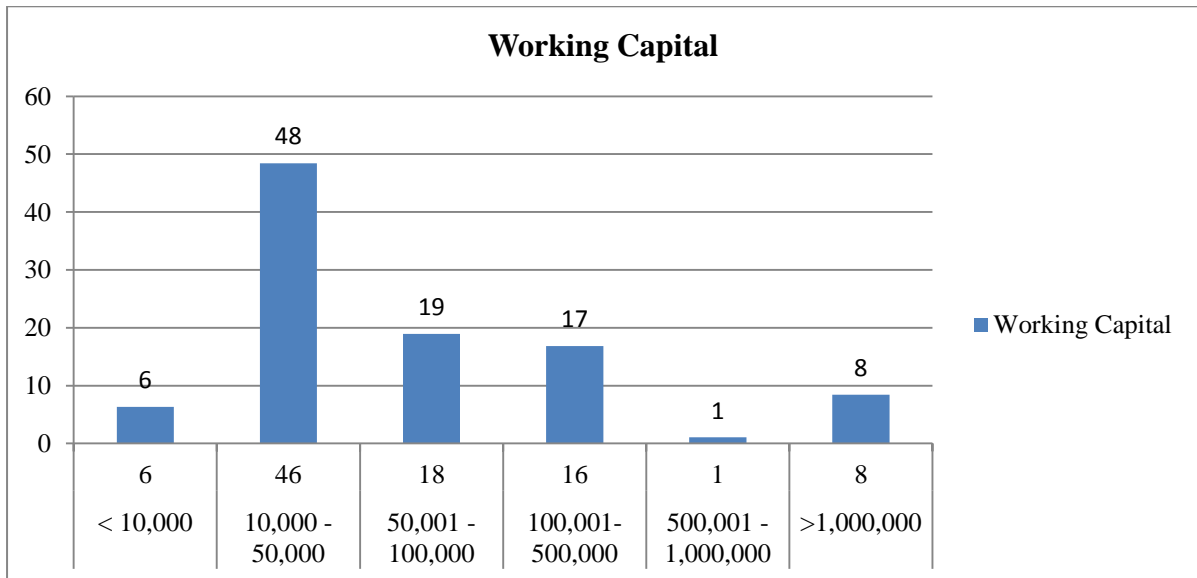


Figure 4.2 Working Capital

Figure 4.2 indicates the working capital of the horticultural SMEs. The study observed that 48% of the SMEs had working capital of Kshs. 10,000-50,000, 19% had between 50,001 and 100,000, 17% had between 100,001 and 500,000 and 8% had above Kshs. 1,000,000.

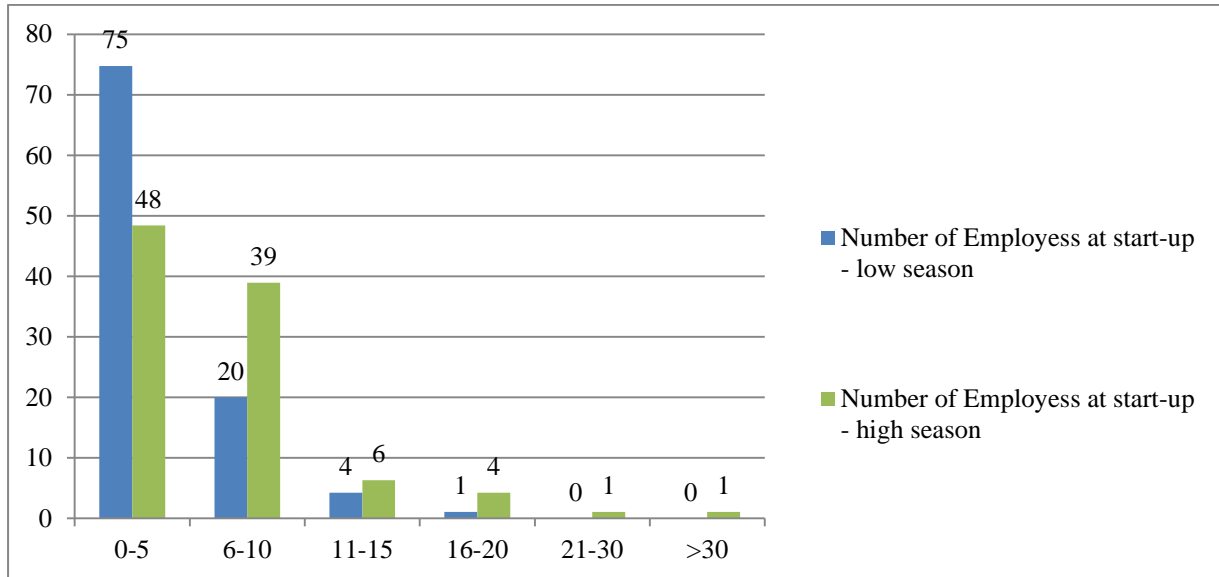


Figure 4.3 Number of Employees at Start-up

Figure 4.3 presents the number of employees engaged by the SMEs at start-up. The study observed that 78% and 48% small and Medium Horticultural Enterprises had 0-5 employees, 20% and 39% had 6-10 employees, 4% and 6% had 11-15 employees, and 1% and 4% had 16-20 employees during low and high seasons respectively. Only 1% and another 1% had 21-30 employees and more than 30 employees respectively during the high season.

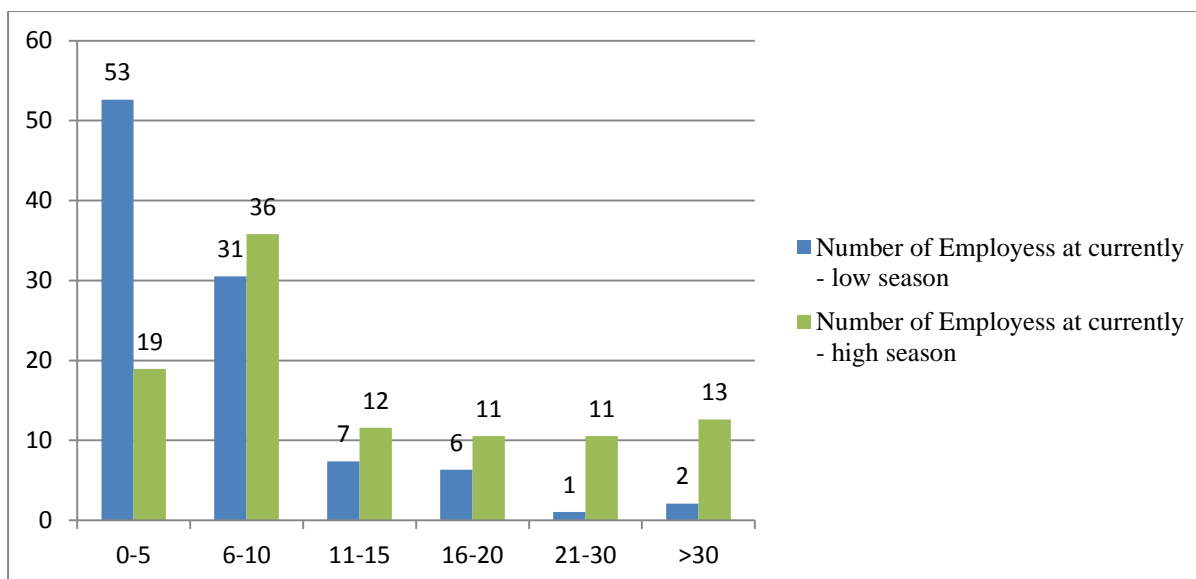


Figure 4.4 Current Number of Employees

Figure 4.4 shows the results on the current number of employees that are engaged by the horticultural SMEs. The study observed 53% and 19% had 0-5 employees, 31% and 36% had 6-10 employees, 7% and 12% had 11-15 employees, 6% and 11% had 16-20 employees, 1% and 11% had 21-30 employees and 2% and 13 % had more than 30 employees during the low and high seasons respectively.

4.2.2 Characteristics of SME Managers

The characteristics of the sample under study covered gender, age, level of education and the position of respondents in the SMEs (manager/owner). Frequency distributions were obtained for all the personal data. Sample characteristics are presented as tables and graphs as follows.

Table 4.4 Distribution of Gender of Respondents

Sex	No. of SMEs	Percentage
Male	75	78.9
Female	20	21.1
Total	95	100.0

Source: Survey Data (2011)

Gender was considered important in this study because it may have an effect on the contribution of Public-Private Partnership to small and medium horticultural enterprises, with males being identified as a channel for disseminating knowledge and ensuring participation in stakeholder discussion. Dolan and Sutherland, (2007) observed that gender is a strong determinant for participating in the horticultural production alongside other determinants like skills. This can be attributed to two factors, firstly that families tend to enrol boys (than girls) in school, and secondly that land is owned by male-headed households. Majority of the respondents were male (78.9%) compared with female (21.1%) as shown in Table 4.4. This shows a high involvement of male than female in horticultural production. Coupled with the fact that horticulture is knowledge-intensive, it will be mostly men who will be more active in the sector, with women possibly providing the needed labour (Barrientos *et al.*, 2005).

Table 4.5 Distribution by Age of Respondents

Age	Frequency	Percentage
21-30	10	10.5
31-40	28	29.5
41-50	33	34.7
>50 years	24	25.3
Total	95	100.0

Source: Survey Data (2011)

Table 4.5 provides evidence that majority (34.7%) of the respondents interviewed were aged between 41 to 50 years. Out of the 95, 29.5% were aged between 31 to 40 years, 25.3% were aged above 50 year, while 10.5% were aged between 21 to 30 years. These age brackets explain the trend in horticultural farming, which is characteristically capital intensive and thus respondents above 41 years account for 60% of the responses. It also explains that there is uptake of horticultural farming among the youth – the 21-30 years age bracket accounts for 10.5%. This showed that most of the farmers in the horticultural business were above 41 years old, hence well experienced in horticultural production. The distribution of the age of respondents confirms that the respondents were of a reasonable age, implying that the

respondents may have had high level of comprehension of the items in the questionnaires. However, this research focused on performance of small and medium horticultural enterprises and the influence Public-Private Partnership may have on performance. The question is whether Public-Private Partnership contributes to the performance of small and medium horticultural enterprises and whether the SMEs identify with the contribution.

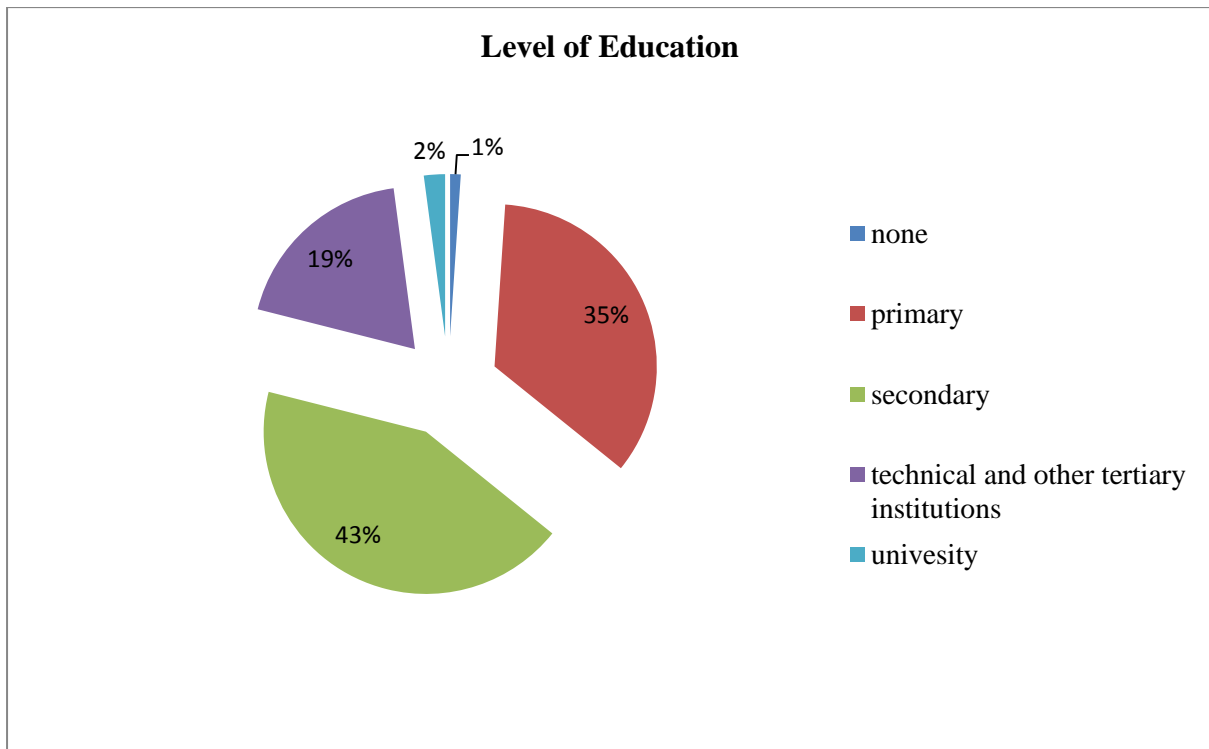


Figure 4.5 Level of Education

The Figure 4.5 presents results on the SME managers' level of education. Most of the managers had secondary education (43%) followed by primary education (35%), while 21% had post-secondary qualifications, with 19% having attended technical and other tertiary institutions and only 2% having obtained university qualifications. Kinyanjui (2011) in his study on Micro and Small Enterprises in Rural Central Kenya, observed a strong relationship between business knowledge and growth and competitiveness. He found out that most of those who had changed their methods of production were those with post-secondary

education, suggesting that post-secondary education is crucial to technological change in SMEs.

Table 4.6 Distribution of Type of Ownership and Position of Respondent in the SME

Form of Business	No. of SMEs	Percentage	Position in Business	No. of SMEs	Percentage
Sole Proprietor	91	95.8%	Both Manager and Owner	71	74.7%
Joint Venture	1	3.2%	Manager	5	20.0%
Partnership	3	1.1%	Owner	19	5.3%

Source: Survey Data (2011)

From Table 4.6 it can be seen that majority (95.8%) of the SMEs were operating as sole proprietorships while 3.2% were partnerships and 1.1% joint ventures. In addition, 74.7% were managed by their owners while the rest had separate management structures as either owners or managers. They also varied in size and in most cases tended to be small and family owned. Ownership of the SMEs and their management was used to group the SMEs such as the owner or the manager. The findings show that 74.7% of the SMEs were managed by owners while the rest had separate management structures as either owners or managers.

4.3 The Sources of the PPP Support Provided

This study considered Public-Private Partnership support as a question of influencing SME performance, in explaining the contribution of Public-Private Partnership to the performance of Small and Medium Horticultural Enterprises in Kenya. Beck *et al.*, (2003) suggest that in a developing economy like Kenya where entrepreneurship culture remains fragile, direct government or public sector's support of SMEs would help improve the performance and growth of the sector.

The study sought to establish the sources of support received by SMEs in the horticulture industry. The sources that were identified are discussed in detail.

Table 4.7 Sources of Start-up Funds

Source of Funds	Frequency	Percentage
Bank Loan	7	7.4
Personal Savings	88	92.6
Total	95	100.0

Source: Survey Data (2011)

Table 4.7 summarises the findings on start-up funds that showed that 92.6% of the SMEs were started by the owners from personal savings and only 7.4% sought loans from various lending institutions to start their business. Although majority of the start-ups were on personal funds, the respondents indicated that they received support from external sources.

Figure 4.6 identifies and summarises the external sources.

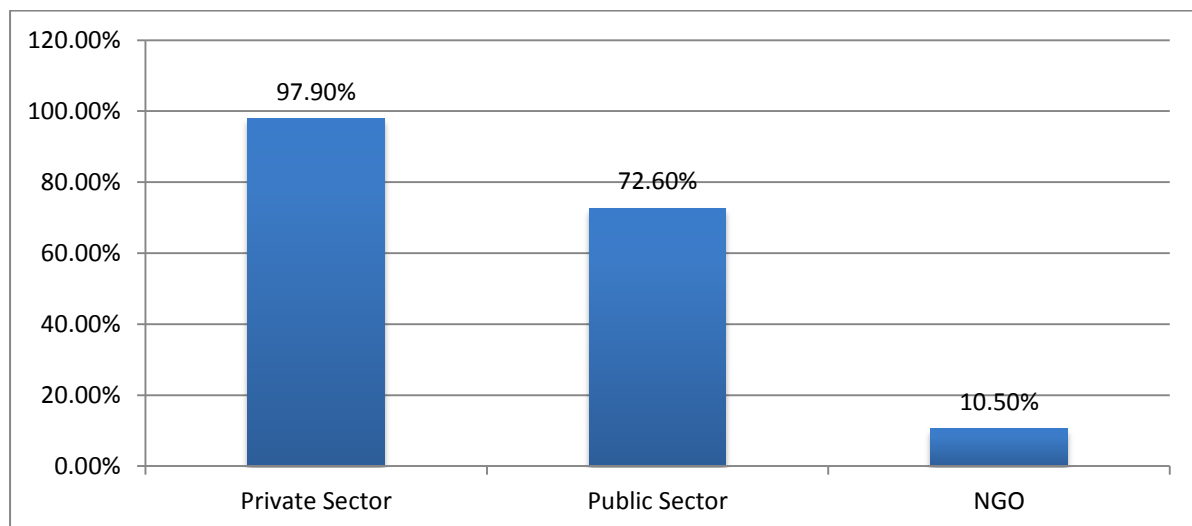


Figure 4.6 Sources of Support for SMEs

The private sector was identified as the major source of support (97.9%), alongside public sector (72.6%), and NGOs at (10.5%) respectively. The findings indicate that the SME respondents did receive external support and it represents an interaction between the public and private sectors including NGOs and horticultural SMEs. Private sector support was identified to be mainly from Finlay's Homegrown Kenya Ltd – the study sample. The study findings are indicated in Figure 4.7.

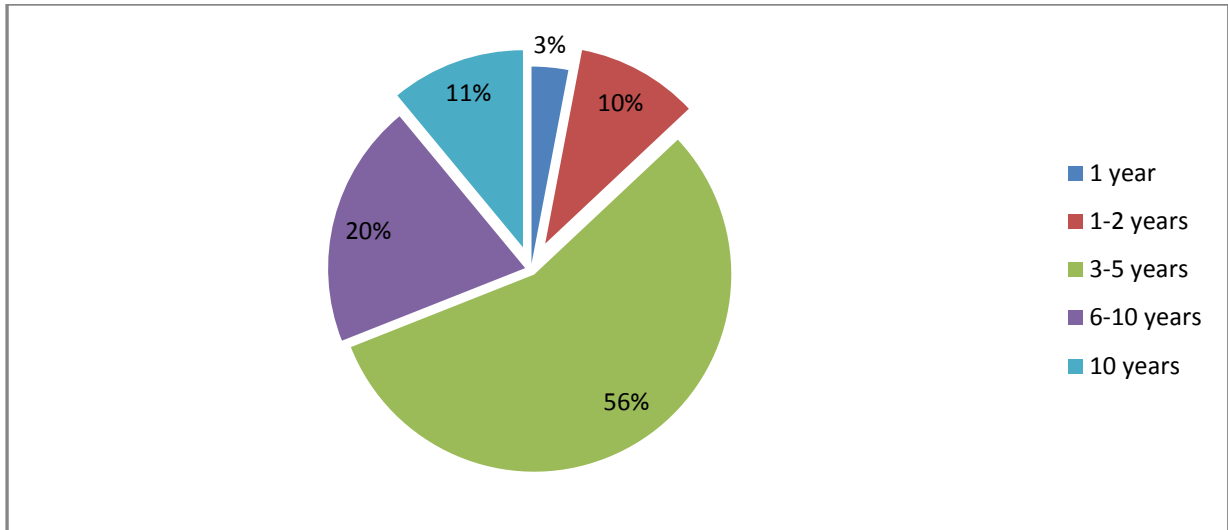


Figure 4.7 Description on Duration of SMEs Partnership with Finlays Homegrown Kenya Ltd

Figure 4.7 shows that SMEs mainly receive support from the horticultural companies that subcontract them to supplement their supply. The SMEs indicated that Finlay's Homegrown Kenya Ltd has been an outstanding source of support. In all, 56% of the respondents had been in partnership with Finlay's Homegrown Kenya Ltd for 3-5 years, 20% had been in partnership for 6-10 years, 11% for more than 10 years, 10% for 1-2 years and 3% for less than 1 year.

It is important to note that other companies also provided support to some of the SMEs. These included; East African Growers, Everest, Sunripe, KHE, Indu farm and other minor exporters. As the horticultural subsector embraces PPP, these firms play a critical role in promoting the growth of SMEs alongside a key player like Finlay's Homegrown Kenya Ltd.

Table 4.8 Support by Other Companies in the Same Sector as Finlay’s Homegrown Kenya Ltd

Source of Support (n=32)	Frequency	Percentage
Other (SMEs in the export sector)	10	31.3
Sunripe	7	21.9
Everest	6	18.8
East African Growers	5	15.6
KHE	3	9.4
Indu farm	1	3.1
Total	32	100

Source: Survey Data (2011)

4.4 The Nature of Support that Small and Medium Horticultural Enterprises Receive in Kenya

The second objective of the study sought to establish the nature of support offered to SMEs in the horticultural subsector. The type of support, which is unique to the needs of various SMEs, has the potential to improve their performance. Some key issues that emerged from the study were the need to develop the skills and capacity of small-scale producers in order to ensure sustainable production of supply in terms of quantity and imposed regulation of production activity. This was the only way to meet international market demands. The costs associated with training and developing new Small and Medium Horticultural Enterprises (small-scale producers) included addressing their logistical challenges. It was indicated that this was an area where support was strongly needed working with the public and private sectors in order to bring new small-scale producers in as part of the global supply chain.

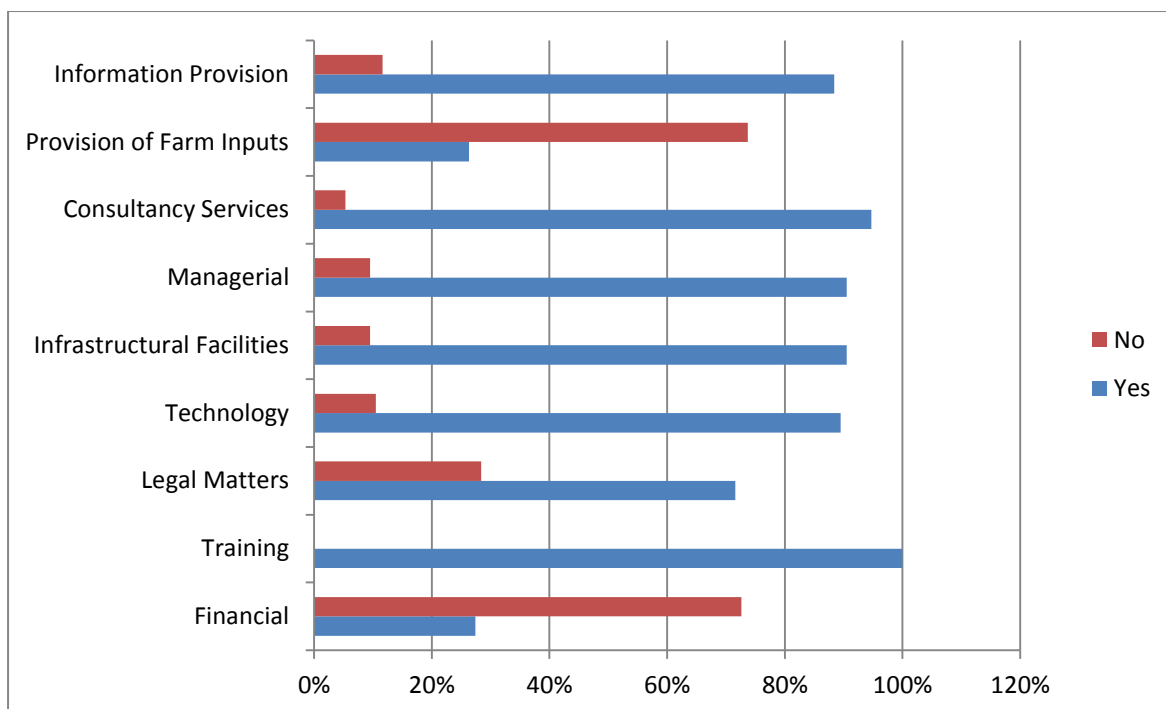


Figure 4.8 Nature of Support that SMEs Received

As shown in figure above, 27.4% of the respondents received financial support; 71.6% received legal support; 89.5% received technological support; 90.5% received infrastructural and managerial support; 94.7% and 88.4%, consultancy and information services respectively while 26.3% were provided with farm inputs.

Further, the study sought to determine the quality of support that the SMEs receive from the horticultural firms. The quality of support was rated based on a 5-point Likert scale with 1 being very important and 5 least important. Figure 4.9 presents a summary of the importance of the overall support.

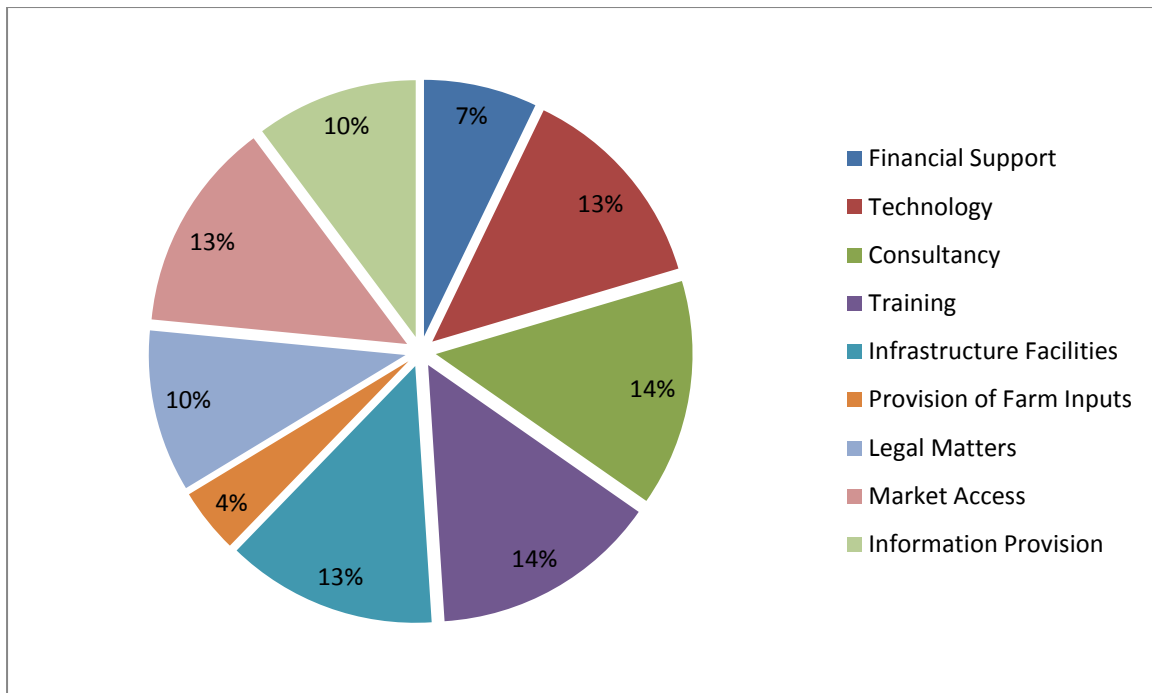


Figure 4.9 Quality and Importance of Support Received by SMEs

Training and consultancy (14%) were rated the most important, while financial support and provision of farms inputs were the least important at 7% and 4% respectively. Horticultural subsector is knowledge-intensive, an observation made from the SME respondents who had undertaken further training in relevant areas and obtained additional qualifications in other areas as summarised in Figure 4.10 below.

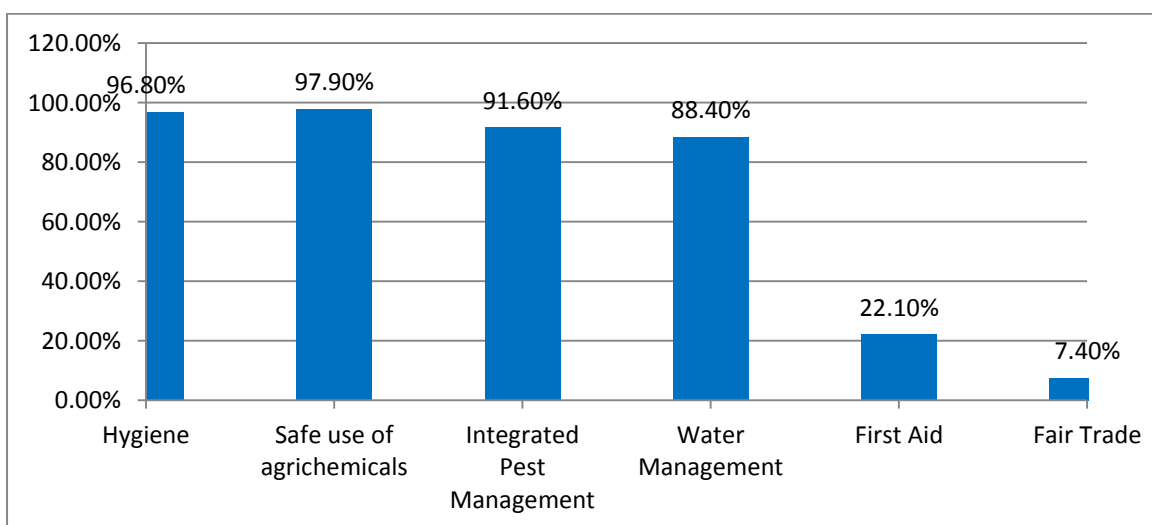


Figure 4.10 Additional Training in Other Areas

The findings show that 96.8% of the SME respondents interviewed were trained on other relevant technical areas such as hygiene or phytosanitary conditions, 97.9% in safe use of agricultural chemicals, 91.6% in integrated pest management, 88.4% in water management. These are essential skills in the management of horticultural farms; a few were trained on first aid (22.1%) and fair trade (7.4%).

4.5 SME Performance and Market Access

The study sought to determine the independence of performance of Small and Medium Horticultural Enterprises from market access. The following null hypothesis was stated and tested.

H₀: Performance of Small and Medium Horticultural Enterprises is independent of Market Access

Table 4.9 gives results for the Chi-square test of independence. The Chi-square value and p-value statistic were $\chi^2=40.071$ and $p=0.003$ respectively. Since $p<0.05$, we rejected the null hypothesis at 5% level of significance and concluded that performance of Small and Medium Horticultural Enterprises is dependent on market access.

Table 4.9 Test of Independence for SME Performance and Market Access

Dependent Variable	Market Access (Independent Variable)			
	N	d.f	χ^2	P value
SME performance(Dependent Variable)	95	4	40.071	0.003

The study further investigated the relationship between SME performance variables and market access variables. A Chi-square test of independence was performed and results presented in Table 4.10.

4.5.1 Level of Market Access and SME Performance

Table 4.10 gives results for Chi-square test of independence. The Chi-square values and p-values statistic for growth were $\chi^2=11.556$ and $p=0.02$, and for profitability $\chi^2=12.784$ and $p=0.049$ respectively. Since in both instances $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that growth and profitability of Small and Medium Horticultural Enterprises are dependent on the level of market access as shown in Table 4.10 below.

Table 4.10 Test of Independence for SME Performance Variables and Level of Market Access

Dependent Variable	Level of Market Access (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	4	11.556	0.020
SME Profitability	95	4	12.784	0.049

4.5.2 Market Share and SME Performance

Table 4.11 provides results for Chi-square test of independence. The Chi-square values and p-values for growth were $\chi^2=24.666$, and $p=0.00$ and for profitability $\chi^2=18.112$, and $p=0.009$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that growth and profitability of Small and Medium Horticultural Enterprises are dependent on market share as indicated in Table 4.11 below.

Table 4.11 Test of Independence for SME Performance Variables and Market Share

Dependent Variable	Market Share (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	4	24.666	0.00
SME Profitability	95	4	18.112	0.009

4.6 SME Performance and Public-Private Partnership Support

The study also sought to establish whether performance of Small and Medium Horticultural Enterprises is independent of Public-Private Partnership support. The null hypothesis was stated as follows:

H₀: Performance of Small and Medium Horticultural Enterprises is independent of Public-Private Partnership support

Table 4.12 gives the results for Chi-square test of independence. The Chi-square value and p-value statistic were $\chi^2=52.62$ and $p=0.009$ respectively. Since $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that performance of Small and Medium Horticultural Enterprises is dependent on PPP support as shown in table 4.12 below.

Table 4.12 Test of Independence for SME Performance and Public-Private Partnership Support

Dependent Variable	PPP intervention (Intervening Variable)			
	N	d.f	χ^2	P value
SME Performance (Dependent Variable)	95	20	52.620	0.009

Source: Survey Data (2011)

4.6.1 Regulation of Production and SME Performance Variables

Table 4.13 presents results on Chi-square test of independence. The Chi-square values and p-values statistic for growth were $\chi^2=15.919$ and $p=0.014$, and profitability $\chi^2=49.509$ and $p=0.00$ respectively. Since $p<0.05$ in both instances, the null hypothesis was rejected, it was concluded that growth and profitability of Small and Medium Horticultural Enterprises are dependent on regulation of production activity as shown in table 4.13. This means that those factors that are aimed at regulating production by the SMEs influence their performance. Profitability and growth amongst SMEs benefiting from PPP interventions focused on addressing regulation of production activity. The respondent SMEs identified PPP

intervention such as efforts to encourage them to come together and form smallholder groups that enable them to enjoy economies of scale in terms of accessing relevant resources like pack houses, farm office and chemical stores that are necessary for product handling.

Table 4.13 Test of Independence for SME Performance Variables and Regulation of Production

Dependent Variable	Regulation of Production (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	6	15.919	0.014
SME Profitability	95	6	49.509	0.000

4.6.2 Product Demand and SME Performance Variables

Table 4.14 gives the result for Chi-square test of independence. The Chi-square values and p-values for growth were $\chi^2=27.660$ and $p=0.046$, and for profitability $\chi^2=28.202$ and $p=0.041$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that the growth and profitability of Small and Medium Horticultural Enterprises is dependent on product demand.

Table 4.14 Test of Independence for SME Performance Variables and Product Demand

Dependent Variable	Product Demand (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	8	27.660	0.046
SME Profitability	95	8	28.202	0.041

4.6.3 Production Inputs and SME Performance Variables

Table 4.15 gives the results of Chi-square test of independence. The Chi-square values and p-values for growth were $\chi^2=24.408$, and $p=0.037$, and for profitability $\chi^2=26.255$ and $p=0.019$ respectively. Since both in instances $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that the growth and profitability of Small and Medium Horticultural Enterprises are dependent on production inputs. This means that SMEs that are

supplied with production inputs as part of the PPP intervention arrangement are more likely to increase their profitability. The SME respondents acknowledged that through PPP intervention they have received certified quality seeds, which are a critical success factor in their production systems. They further sighted that continued support in terms of research to improve the seeds to match the changing weather patterns was on going.

Table 4.15 Test of Independence for SME Performance Variables and Production Inputs

Dependent Variable	Production Inputs (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	8	24.408	0.037
SME Profitability	95	8	26.255	0.019

4.6.4 Appropriate Technology and SME Performance Variables

Table 4.16 presents results for Chi-square test of independence. The Chi-square values and p-values statistic for growth were $\chi^2=28.685$, and $p=0.00$, and for profitability $\chi^2=21.148$ and $p=0.007$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that growth and profitability of Small and Medium Horticultural Enterprises are dependent on appropriate technology as indicated in Table 4.16 below. Thus when PPP support is delivered around appropriate technology, it leads to increased profitability and growth. The SME respondents identified PPP intervention through dissemination of technology such as improved farming methods, more efficient irrigation method like drip irrigation and more importantly integrated pest management programme.

Table 4.16 Test of Independence for SME Performance Variables and Appropriate Technology

Dependent Variable	Appropriate technology (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	4	28.685	0.000
SME Profitability	95	4	1.148	0.007

4.6.5 Training and Skills development and SME Performance Variables

Table 4.17 gives results for Chi-square test of independence. The Chi-square values and p-values statistic for growth were $\chi^2=18.380$, and $p=0.005$, and for profitability $\chi^2=23.158$ and $p=0.009$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that growth and profitability of Small and Medium Horticultural Enterprises are dependent on training and skills development as shown in Table 4.17 below. All the 95 SME respondents admitted to having received extensive training. Horticultural production is very dynamic given the changes in market requirements and the changes in variety of crops under production. This necessitates constant training to transfer knowledge and ensure skills development for sustainable production. The SME respondents indicated that despite having received training to help them improve production, they at times found it difficult to transform this knowledge into skills and therefore a tangible output due to resource constraints.

Table 4.17 Test of Independence for SME Performance Variables and Training and Skills development

Dependent Variable	Training and Skills development (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	6	18.380	0.005
SME Profitability	95	6	23.158	0.009

4.6.6 Water Resource Management and SME Performance Variables

Table 4.18 presents the results for Chi-square test of independence. The Chi-square values and p-values statistic for growth were $\chi^2=6.643$, and $p=0.759$, and for profitability $\chi^2=6.768$ and $p=0.747$ respectively. Since in both instances $p>0.05$, the null hypothesis was not rejected at 5% level of significance, it was concluded that the growth and profitability of

Small and Medium Horticultural Enterprises is independent of water resource management as shown in Table 4.18 below.

In recent times, water resource management has become a focal point for horticultural production as well as a concern for the natural resource management authorities. This suggests that SME performance is currently not influenced by PPP support channelled in water resource management.

Table 4.18 Test of Independence for SME Performance Variables and Water Resource Management

Dependent Variable	Water resource management (Independent Variable)			
	N	d.f	χ^2	P value
SME Growth	95	10	6.643	0.759
SME Profitability	95	10	6.768	0.747

4.7 Public-Private Partnership Support and Market Access

The study also determined whether market access is independent of Public-Private Partnership support.

H₀: Market access is independent of Public-Private Partnership support

Table 4.19 gives results for Chi-square test of independence. The Chi-square value and p-value statistic were $\chi^2=10.87$ and $p=0.01$ respectively. Since $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that market access is dependent on PPP support.

Table 4.19 Test of Independence for Market Access and Public-Private Partnership Support

Independent Variable	PPP intervention (Intervening Variable)			
	N	d.f	χ^2	P value
Market	95	5	10.87	0.10

4.7.1 Regulation of Production and Market Access Variables

Table 4.20 gives results for Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=25.240$ and $p=0.00$, and for market share $\chi^2=26.449$ and $p=0.048$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that the level of market access and market share of Small and Medium Horticultural Enterprises are dependent on regulation of production activity as shown in Table 4.20 below. The PPP intervention regulating production activity was identified as providing the SMEs with a bridge to overcome market challenges.

Table 4.20 Test of Independence for Regulation of Production and Market Access Variables

Independent Variable	Regulation of Production (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	6	25.240	0.00
Market share	95	6	26.449	0.048

4.7.2 Product Demand and Market Access Variables

Table 4.21 presents result for Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=21.745$ and $p=0.038$, and for market share $\chi^2=20.499$, and $p=0.032$ respectively. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that the level of market access and market share are dependent on product demand as shown in Table 4.21 below. The level of market access hence the market share commanded by the respective SME was boosted through PPP intervention by creation of product demand through the enhanced value chain. PPP intervention to address the market forces especially low demand through contract purchase agreement helped boost the level of market access.

Table 4.21 Test of Independence for Product Demand and Market Access Variables

Independent Variable	Product Demand (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	8	21.745	0.038
Market share	95	8	20.499	0.032

4.7.3 Production Inputs and Market Access Variables

Table 4.22 gives result on Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=16.481$ and $p=0.043$, and for market share $\chi^2=17.764$, and $p=0.032$ respectively. Since in both instances $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that level of market access and market share are dependent on production inputs as shown in Table 4.22 below. PPP intervention provides production inputs to SMEs which helps them to meet the quality standards.

Table 4.22 Test of Independence for Production Inputs and Market Access Variables

Independent Variable	Production Inputs (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	8	16.481	0.043
Market share	95	8	17.764	0.032

4.7.4 Appropriate Technology and Market Access Variables

Table 4.23 presents result for Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=32.893$ and $p=0.00$, and for profitability $\chi^2=32.190$ and $p=0.001$ respectively. Since in both instances $p<0.05$, the null hypothesis was rejected at 5% level of significance, it was concluded that the level of market access and market share are dependent on appropriate technology as indicated in Table 4.23 when PPP intervention is delivered through appropriate technology as a response to the need to increased market access and market share.

Table 4.23 Test of Independence for Appropriate Technology and Market Access Variables

Independent Variable	Appropriate Technology (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	4	32.893	0.00
Market share	95	4	32.190	0.001

4.7.5 Training and Skills development and Market Access Variables

Table 4.24 gives result for Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=96.585$ and $p=0.00$, and for market share $\chi^2=84.595$ and $p=0.009$. Since in both cases $p<0.05$, the null hypothesis was rejected at 5% level of significance it was concluded that the level of market access and market share are dependent on training and skills development as presented in Table 4.24 below. The PPP intervention input in terms of training and skills development helps the SME to address the market challenges that would impede SME performance.

Table 4.24 Test of Independence for Training and Skills development and Market Access Variables

Independent Variable	Training and Skills Development (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	6	96.585	0.00
market share	95	6	84.595	0.009

4.7.6 Water Resource Management and Market Access Variables

Table 4.25 presents result for Chi-square test of independence. The Chi-square values and p-values statistic for level of access were $\chi^2=6.643$ and $p=0.759$, and market share $\chi^2=6.768$ and $p=0.747$ respectively. Since in both instances $p>0.05$, the null hypothesis was not rejected at 5% level of significance, it was concluded that level of market access and market share are independent of water resource management as indicated in Table 4.25 below.

Table 4.25 Test of Independence for Water Resource Management and Market Access Variables

Independent Variable	Water Resource Management (Dependent Variable)			
	N	d.f	χ^2	P value
Level of market access	95	10	12.537	0.99
Market share	95	10	11.892	0.292

4.8 Discussion of Findings

The primary aim of this research was to establish the influence of Public-Private Partnerships on the relationship between market access and performance of small and medium horticultural enterprises in Kenya. To arrive at this purpose, four specific objectives were studied. This section discusses the findings of the study based on the objectives for the strategic interventions into the horticultural subsector proposed in Chapter 5.

4.8.1 Objective One

To describe the sources of the Public-Private Partnership support provided. The study findings revealed that SMEs receive varied support from a variety of sources. These included private sector (97.9%), public sector (72.6%) and NGOs (10.5%). It is also important to note that some of the SMEs funded their activity directly.

In terms of start-up funds, the findings showed that 92.6% of the SMEs were started from personal savings while 7.4% sought loans from various lending institutions to start their business. This in part explains why the operations are small. The SMEs tend to be cautious because of risks of crop failure, meaning that they would not be certain about repayment of their loans. This is further compounded by the fact that land area under crop production by SMEs ranges between 1-5 acres (61.1%). The strain created on land, through reliance on the

same parcels for commercial and domestic production, is an area of concern for sustaining SME performance.

The cooperation between the public sector, private sector and NGOs in supporting SMEs is emphasised by Gomez (2004); partnerships that bring on board government support, joint action among growers through cooperatives and between growers and other local agents, such as local input suppliers influence the way SMEs participate in global value chains and thus make them more competitive. More specifically, he argues that the public sector support influenced the adoption of production processes by SMEs in the initial stages and that this helps to shape the structure of production. He also notes that SMEs have managed to remain competitive through i) involvement in public-private research partnerships, ii) cooperatives, iii) subcontracting relations with large grower-exporters, and iv) increased interaction with local input suppliers that have served as sources of technical assistance and innovation.

The Kenya National Horticultural Policy (2010) recognises that the good performance of the horticultural industry has been due to the fact that it is largely private-sector driven. SMEs still face challenges and the Government, through the NHP will: (i) enhance the research capacity of public research institutions through increased funding, (ii) promote partnerships with relevant public and private institutions including international organisations to increase funding and technology development, (iii) explore innovative systems that include international best practices of producing and bulking planting material, and promote the up-scaling and replication of successful systems, and lastly iv) streamline certification processes by improving the capacity of national institutions to promote use of clean material that conforms to international standards and best practices.

According to Rahman (2010), the importance of business and NGO sectors and the limitations of the State in realising the social ideals cannot be ignored in developing

countries. Governments and NGOs are increasingly working together as partners to complement each other's efforts. Each sector has immense benefit and potential in their respective field: the State can provide an enabling environment and space for the other two sectors; business can solve the financial problems for the government's agenda of development; and NGOs can implement the Government's development agenda more economically, efficiently and effectively at the grassroots level. The partnership for social development can be built on both the strength and weakness of the three sectors of society. In many cases, the other two sectors have had considerable impact on governments in offering alternative implementation models for government programmes. The study noted that PPP practices bring together Government, NGOs and the private sector.

The results show that the private sector, through efforts of companies like Finlay's Homegrown Kenya Ltd, was increasing international support including the sharing of new technologies, science, research collaboration, training and skills development, and most importantly, improved access to markets and market knowledge. However, the support was not quite structured and therefore although the SMEs have the potential to significantly improve yields and production with the right support, they remained vulnerable.

As the competition for the export market intensifies, there is need to understand the obstacles that the SME faced. On their own, they are faced with many challenges including quality of production, which tends to easily decline resulting in reduced competitiveness of produce thereby reducing SME profitability. Export markets make life difficult for Small and Medium Horticultural Enterprises as these have to meet strict demands for quality standards and reliability, which require substantial investments in technology and equipment such as year-round irrigation, greenhouses, trucks, cooling sheds and packing technology. These technologies are expensive and not many SMEs can afford them. SMEs that have succeeded

as suppliers for the export markets have generally overcome these obstacles by forging cooperatives or enrolling in “outgrower” schemes. Often they have benefited initially from information, training and start-up funds provided by public and private sector development initiatives (Humanities Education Centre, 2009).

Export growth was also constrained by lack of SPS facilities to support compliance and certification systems. Some of the issues the SMEs raised included: strict phytosanitary compliance, hygiene, health and safety regulations (standards and legislation) and the associated costs to the SME are a costly barrier to trade. There was a broad acceptance of Global GAP and other legislative standards associated with food safety and hygiene but considerable questions over Fair trade and other schemes, and the costs associated with accreditation borne by the SMEs. All these pose a challenge to the SMEs especially in view of strict adherence in terms of compliance with international quality standards. Phytosanitary regulations and restrictions also affect identification of new export markets and the expansion of existing ones. Thus, quality and standards should be prioritised to steer the growth and performance of horticultural SMEs.

The study observed the following interventions aimed at improving the overall performance of the SMEs. In Ol Kalou region within the Nyandarua County, the Kenya Agricultural Productivity Agribusiness Project (KAPAP) originally piloted as KAPP supports SMEs. The KAPAP, financed by World Bank, aimed at improving productivity in the agricultural sector in 20 counties within the country. In Nyandarua, the SMEs working with KAPAP were the same ones being supported by Finlay’s Homegrown Kenya Ltd. The project provided them with technical expertise. Another partnership is the Small Holder Horticultural Empowerment Project (SHEP) in Ol Kalou. The partners were Ministry of Agriculture, HCDA and JICA.

The project focused on training farmers on production, management, planning and legal support.

Decline in funding from mainstream government for agriculture and extension services has changed the landscape for public sector support and it is today different to what has been the practice in the past. This has led to new funding support mainly from other foreign public agencies (donors). This in some cases has been in consortium with the private sector and NGOs participation through Public-Private Partnerships. The results are cited in Loitokitok where there is all-round representation – European Union, World Vision, Kimana Wetland Association, and the ASAL (Arid and Semi-Arid Lands) programme. These organisations have been involved actively in making water available for horticultural production. The projects have focused on construction and regular maintenance of furrows, and the conservation of the wells by constructing perimeter walls and planting trees to minimise evaporation. Change in weather conditions and unpredictability has adversely affected the water availability and the ability of the SMEs to plan and operate.

In Naivasha, the study observed a PPP practice centred on management of water resources from Lake Naivasha. It is a resource for irrigated farming, which has resulted in significant stress on the lake. Given that a range of very different stakeholders rely upon the lake's waters for their livelihood – including large irrigators conducting commercial horticulture, pastoralists, the vibrant tourism industry, water service providers supplying potable water to local residents, and the State utility KENGEN using water to produce electricity – only a collective approach can begin to address this problem (NEMA, 2011).

There is growing universal concern over the future of water availability. It was also recognised that this was a far bigger issue that could not be addressed by individual companies alone but would require collaborative effort, shared research and financial support

through PPP to implement programmes aimed at safeguarding water resources for the future. Industries around Lake Naivasha have taken the initiative to address water use and environmental management by helping to implement Kenya's National Water policy, which promotes decentralised governance by user groups.

The Lake Naivasha Growers' Group (LNGG), which includes companies such as Finlay's Homegrown Kenya Ltd, have funded a Water Allocation Plan to guide the establishment of multiple local Water Resource Users' Associations (WRUAs). The LNGG has supported the WRUAs in the area, particularly those in the upper catchment (which significantly affect water availability and quality) in adopting water conservation measures and environmentally friendly livelihood strategies. The Lake Naivasha Water Resource Users' Association (LANAWRUA), the WRUA responsible for Lake Naivasha and the immediate area around its perimeter, is currently seeking funding, with the assistance of the Government, CARE International and WWF, to broaden its activities and undertake components of its own Sub-Catchment Management Plan to improve positive water management in the region (WRMA, 2011).

This case illustrates the benefits of a group of companies getting together to help implement what is a good national water policy on paper, to help reduce shared risk around the lake. Whilst being an excellent and highly innovative approach to managing water resources, it was clear that continued support is greatly required. This researcher also observed that apart from the isolated projects, government support was observed through the provision of water and its management. In Mwea, the SMEs singled out the efforts by the National Irrigation Board (NIB) to ensure harmonious and equitable use and access to water. In addition, efforts are currently underway between the NIB and Japan International Corporation Agency (JICA) to expand the water supply network in the region. In Narok, the efforts of the national

government to conserve the Mau water catchment have proved beneficial, increasing water volumes within the river channels. Increase in water supply has improved productivity in this region. In Loitokitok, support has been provided by the central administrative arm of the Government to manage the potential conflicts that may arise from competition for the water resource. The region being predominantly inhabited by livestock keepers, the local administration has partnered with SMEs and other stakeholders to develop acceptable programmes for use of water.

The study results also indicated that 35.8% (6-10 years); 29.5% (3-5 years); 24.2% (more than 10 years); 9.5% (1-2 years) and 1.1% (less than 1 year) had been in business receiving support from Finlays Homegrown Kenya Ltd. This could be due to the fact that most SMEs face a number of performance constraints and a good number die within the first four years of their commencing operation (Parker and Torres, 1999; Aryeetey and Ahene, 2005). The support from Finlays Homegrown Kenya Ltd has distinctively helped Small and Medium Horticultural Enterprises to survive beyond their fourth birthday. In addition, the survival of the SMEs is due to the fact that 78.9% were owned or managed by men. Bekele and Worku, (2008) on a study on women entrepreneurship in MSMEs in Ethiopia identified that majority of the SMEs that failed were operated by women.

Although the study focused on support provided by Finlays Homegrown Kenya Ltd – whose support is readily available and accessible, and the partnership is voluntary – to lend further credence to the study, it also explored if the SMEs received support from other companies. Indeed, 33.7% of the SME respondents had received support from the other companies. For instance, the SMEs occasionally received support from agrichemical companies; in Mweiga, the SMEs have partnered with Twiga chemicals who supply them the agrichemical at price lower than the retail market price. A similar arrangement was observed in Loitokitok where

the SMEs have partnered with Syngenta to provide training on the safe use of pesticides as well as training the farmers on observing environmental changes that favour the existence of specific pests and diseases. To reinforce this knowledge, they provide farmers with materials indicating the various cycles of the pests and symptoms of diseases. In Kathiani, the PPP support provided was unique in that it focused on research and testing of fertilisers. The Athi River Mining Company has partnered with farmers to engage in testing fertilisers. This kind of support is of critical importance and is a major building block for the development of PPP in research.

In summary, Small and Medium Horticultural Enterprises received support from a number of sources mainly the private sector, public sector and NGOs. However, the support is not structured. Evidently, the issues discussed in this study raise significant challenges to the conduct of successful PPPs in Kenya. The complexity of such arrangements and the high costs involved is enough cause for the Government to take a careful approach to PPPs. It should also recognise that PPPs pose many of the same problems inherent in procurement or privatisation and are not a panacea for development. The study recommends that the Government must determine clear operational guidelines with respect to acceptable forms of PPPs and their prioritisation, procedural clarity on the basic steps in establishing PPP projects, basic approaches to risk allocation, value for money and principles around the provision of guarantees and financial and budget evaluation criteria.

4.8.2 Objective Two

To describe the nature of support that SMEs in horticulture are given in Kenya. Having identified the sources of support for the SMEs, the next question was to describe the nature of this support as rated on the level of importance by the SMEs. The study results indicated that

the SMEs received the following support: financial, training, legal, technology, infrastructure, market demand and consultancy support, and farm inputs and information.

Financial support has been identified in many studies as the most important factor determining the survival and growth of small and medium-sized enterprises in both developing and developed countries. Access to financing allows SMEs to undertake productive investments to expand their businesses and to acquire the latest technologies, thus ensuring their competitiveness and that of the nation as a whole. The study results indicate that financial support was low (7%) as compared to other forms of support, revealing that the SMEs hardly receive the necessary financial support to spur their growth and development. It was noted that these SMEs do not have access to competitive loans for enterprise establishment. There seems to be some risk aversion amongst the financial institutions that are expected to give financial support. Provision of effective and widespread financial services is essential for the development of the horticultural industry. Several financial institutions that offer support to the industry include Government parastatal, commercial banks, microfinance institutions, bilateral and multilateral lending institutions, NGOs, SACCOs and donor programmes.

However, such financial services are inaccessible to a large number of medium and small-scale operators due to high interest rates. In addition, there are no appropriate crop insurance schemes or a special fund to facilitate financing of the industry thus preventing many small-scale producers and processors from up-scaling to commercial status. The study noted that there were PPP practices that were bringing together the Government, NGOs and the private sector. For example, the researcher observed the interventions in Meru where SISDO a micro-finance NGO involved in financing local SMEs partnered with some SMEs by providing finance in a water project.

It should also be noted that 21.1% of the Small and Medium Enterprises were operated by women. Among the challenges of horticulture being classified as high-risk by finance providers, it should be noted that SMEs operated by women have lower access to financial support. This is because women do not have collateral so they cannot access loans (Bekele and Worku, 2008). In addition, the programmes financing the horticulture industry are uncoordinated resulting in duplication of activities, which can partly be attributed to lack of prioritisation in areas that need financing. Due to lack of appropriate mechanisms for financing the industry, low-interest loans acquired by the Government are normally channelled through commercial banks, which subsequently provide these loans to players in the horticultural industry at market rates.

The SMEs rated training (14%) as the most received support and of great importance. The study reported that SMEs acknowledge that training has helped them to improve their operations in terms of efficiency and effectiveness as well as working towards the attainment of global standards. This demonstrates the need to put emphasis on training of SME owners on farming techniques to improve productivity levels. It is recognised that small-scale producers in Africa cannot compete in globalised markets with free trade and no support (Jaeger, 2009). The author further argues that there is need to stimulate commercial agriculture among small-scale farmers through training as this will help among other things, improve their understanding on how a new market opportunity may be addressed or a new technology such as drip irrigation may be introduced and applied.

Technical competence for example in crop production processes is necessary for Small and Medium Horticultural Enterprises to be successful in business. Other than the formal school training, the respondents were asked if they had undertaken any additional training that they may have found useful. This is because training programmes linked to SME needs and

integration with the performance systems is essential in improving productivity (Neild *et al.*, 2010). At start-ups, SMEs need training in formulating business plans, identifying markets, hiring workers and complying with government regulations. However, at maturity stage SMEs may be trained on marketing skills and exporting requirements, product development, process improvement, identification and use of new technology, labour relations, networking and generally improving adaptability and flexibility. Therefore, the study results indicate the type of training undertaken and additional qualifications of SME owners (Hill, 2007).

The main areas of additional training that the SME respondents received were: hygiene, safe use of agrichemicals, integrated pest management, water management, first aid and fair trade. These points to the fact that horticultural farming not only requires farm equipment and facilities but also requisite farming skills, which are an integral and essential component of business competence leading to competitiveness. Horticultural SME competitiveness must be sustained in the market in order to supply quality products on time and at competitive prices by acquiring the flexibility to respond quickly to demand and changes in the market, and successfully managing product differentiation by building up innovative capacity and an effective marketing system (Altenburg *et al.* 1998).

Legal support was perceived by the respondents to be important; they rated it at 10%. Legal support was found to be beneficial for most of the SMEs especially with respect to negotiation of contracts of supply and the pricing structure for their produce. The study also observed that in regions where the SMEs have pooled resources to address structural marketing challenges, legal support was essential in the negotiation of the rights and responsibility of each member SME.

Adoption of the latest technology is critical for SMEs if they are to remain competitive in the horticultural subsector. Study results showed that technology support was rated at 13% by the

respondents, confirming that the SMEs considered technology as critical in their operations. This could point to the fact that technology is a key driver of productivity and competitiveness of SMEs in the horticultural subsector. Knowledgeable consumers are responsible for demanding products that are environmentally friendly, and this requires appropriate technology whose acquisition is an expensive venture for SMEs involved in horticultural production. The study established that the technology required pertained to water resource management, crop management and product harvesting and handling.

The study witnessed the structured technical support service provided by Finlay's Homegrown Kenya Ltd to all SME respondents. This support package includes distribution of certified seeds, advice on agrichemicals to be used, active monitoring of the production process, quality assurance, harvesting and postharvest management. The SMEs were also found to receive regular training from Finlay's Homegrown Kenya Ltd and agrichemical industry especially on the usage of agrichemicals. In illustration, the Athi River Mining Company conducted experiments for fertilisers used on SME farms in Athi River. Technology encouraging minimal water usage such as drip irrigation was desired by respondents but was prohibitive in cost. The HCDA is also promoting the adoption of greenhouses to minimise the effects of evaporation but the uptake has remained very low. It was also observed that the integration of information and communication technology (ICT) in SME business was critical in revolutionizing relationships within organisations and business operations, and brought about a paradigm shift in management of businesses (Ayo *et al.*, 2010 and Salehi, 2010). The SMEs made use of ICT mainly for obtaining market prices.

Lack of storage facilities for increased production is a constraint for postharvest management of the produce. Infrastructure investment in logistics and cold chain facilities was identified as crucial in the sector, where perishability of produce is high. The investment in properly

equipped and structured pack houses would make a significant contribution to reducing waste in the value chain. The study also revealed efforts by the public sector e.g. in Ol Kalou through development programmes such as the Kenya Agricultural Productivity Project (KAPAP). This particular project focuses on improving the performance of SMEs as well as developing the enabling infrastructure such as cold storage facilities, training on farm management and overall productivity. Availability of infrastructural facilities is crucial for growth and performance of Small and Medium Horticultural Enterprises as is evident from the study findings where it was rated at 13%; majority of the SMEs considered it important for their performance. The NHP (2010) underscores the need to embrace PPP to support infrastructural development especially water, power and energy to support the sector.

Growth and performance of SMEs relies on access to markets; it was therefore important to establish the significance of market access to SMEs interviewed. The SMEs rated support on access to market at 13%, emphasising the importance of market access to the SMEs. Farmers, traders and consumers are faced with the problem of inadequate physical market infrastructure. Where they exist, such markets are congested, disorganised, have poor sanitary conditions, do not distinguish between the retail and wholesale sections. These are overstretched and do not have adequate security.

According to Hill (2007), the barriers to acquiring business competence by farmers include: (i) structure of the industry (business size and family nature of farms), (ii) information deficiencies, (iii) costs to the individual of education and training, (iv) characteristics of delivery mechanism of education and training amongst others. The key to improving business competence in the longer term seems to lie in encouraging higher levels of education, as this appears to heighten awareness of opportunities, including the use of advice, training and

innovation. Education and training should be seen as an integral part of development of the farmers/SMEs.

Finlay's Homegrown Kenya Ltd was certified to supply Fair trade flowers in 2007. Its customers now include: Marks & Spencer, Next and Sainsbury's. In April 2010, Finlay's Homegrown Kenya Ltd was certified to supply Fair trade fresh vegetables (fine beans, extra fine beans, runner beans, garden peas and mange tout) grown on its own farms and sourced from out-growers. Initially, Finlay's Homegrown Kenya Ltd would supply Fair trade buyers with fine beans and extra fine beans produced exclusively by its out-grower partners. This development comes as a result of a review of Fair trade standards for vegetables. Until September 2009, suppliers of Fair trade vegetables had to be able to meet the Fair trade standards for Small Producer Organisations (SPOs). This meant that most vegetables producers from Africa were not eligible for certification as the producer models in African supply chains did not fit with Fair trade standards.

Since export produce has to meet strict rules for freshness and quality, many vegetable farmers in Africa either sell their produce to larger plantation companies that can invest in the necessary equipment and certifications or sell directly to exporters. Many of these producers are small-scale out-growers who are either not organised into groups or whose structure doesn't meet the Fair trade criteria for SPOs. To overcome this, a new standard has been developed to enable out-growers to enter the Fair trade system and access the benefits of Fair trade. The standard allows for the certification of plantations that source additional volumes of vegetables from SPOs and out-growers. Plantations must source a prescribed percentage of vegetables from out-growers, starting with 10% in their first year of certification for vegetables, 20% in the second, and thereafter increase the percentage in line with an agreed sourcing plan.

Therefore, although Fair trade provides an opportunity for farmers to access markets, it's a new concept that has its challenges in terms of adoption and compliance, which may explain why many SMEs have still neither embraced nor received training in it (Neild *et al.*, 2010). Plantations must therefore support out-growers form self-help groups if they have not already done so. In the longer-term, plantations must provide support and training to enable out-growers to set up the systems and structures necessary to become certified in their own right under the Fair trade standards for SPOs. If the out-growers are not on track to meet the standards within six years, the plantation must contract a third party to provide additional support.

This new standard will help small-scale farmers to access social and economic benefits through the Fair trade minimum price and premium and provide support towards implementation of more sustainable agricultural practices that reduce pressure on the environment and water resources. In Kenya alone, an estimated 800 SPOs produce vegetables, of which approximately 60% could potentially supply the European market.

Finlay's Homegrown Kenya Ltd buys vegetables from small-scale farmers from 10 areas located in the higher rainfall areas of Kenya. Initially, 23 groups in Mweiga and 11 in Meru have been identified to supply Fair trade beans. Each group has a membership of between 2 and 20 farmers and represents 343 farmers. Farms are up to 5 acres (2ha) in size and use family labour and seasonal casual labour. Finlay's Homegrown Kenya Ltd provides the groups with the necessary technical support and training to ensure their produce is grown to the high standards demanded by their customers. This includes providing seeds and chemicals at subsidised prices.

Data gathered from this study also showed that most of the SMEs valued consultancy services as a key driver to their performance. The SMEs rated consultancy at 14%, similar to

training. The consultancy support provided through extension services is of critical importance in the production process for the Small and Medium Horticultural Enterprises considering quality produce depends on accuracy and early interventions to address production risks that may arise. The researcher observed a case in Narok where pest outbreak was a major risk and through consultancy support, the SMEs accessed early warnings and were able to take necessary measures.

The level of inputs in a production process determines the output levels. However, data collected indicated that the SMEs rated the support of provision of farm inputs at 4%. The majority of the SMEs have not received any of this support. The SMEs that indicated provision of farm inputs as significant are those that have the access to the subsidised farm inputs. The rest of the SMEs have information on the availability of this form of support but shy away because of the bureaucracies involved and also the costs of accessing the support outweighing the benefits. The research observed that currently the provision of farm inputs by the public sector (government agencies) does not enlist Small and Medium Horticultural Enterprises as target recipients of this support.

The major inputs in the horticultural industry are seeds, fertilisers and pesticides; other requirements include farm structures and equipment. The poor quality of inputs attributed to counterfeiting and adulteration and their high cost are a hindrance to faster development of the subsector. Inputs are distributed through a wide range of stockists, merchants and cooperatives throughout the country. However, most of the input dealers are not trained to offer quality advisory services to farmers. Despite the positive impact on the environment and health, little has been done to promote technologies such as organic farming that foster use of farm-based inputs (Horticultural Policy Kenya, 2009).

Information on market trends demand and price variations are always important to farmers, SMEs rated this form of support at 12%. The researcher observed that the environment in which the SMEs operate is fraught with information asymmetry. Whilst information on market conditions is easily accessed, information on pest and disease outbreaks is scarce and its drawn-out retrieval means that the damage is usually already done and losses suffered when it is finally accessed. In addition, the researcher observed that the communication channel for feedback from the SMEs on matters regarding quality of seeds is not effective. This provides an opportunity for PPP focusing on research to develop varieties that are suitable. The study sought also to understand the influence of the type and quality of the Public-Private Partnership support and the performance characteristics of the small and medium horticultural enterprises.

4.8.3 Objective Three

To determine the relationship between market access and performance of Small and Medium Horticultural Enterprises The third objective of the study was to determine the relationship between market access and the performance of horticultural SMEs. The study found out that at 5% level of significance, market access and performance of Small and Medium Horticultural Enterprises are dependent, with the Chi-square value and p-value statistic of $\chi^2=40.071$, and $p=0.003$ respectively.

The study further investigated the relationship between SME performance variables and market access variables. The study found out that growth of Small and Medium Horticultural Enterprises is dependent on the level of market access at 5% level of significance with Chi-square value and p-value statistic of $\chi^2=11.556$, and $p=0.02$ respectively. This conclusion compares well with Tschirley *et al.* (2004) who observe that SME growth is driven by consumer demand for quality and food safety in the export market. Similarly, the study found

out that the profitability of Small and Medium Horticultural Enterprises is dependent on the level of market access at 5% level of significance with Chi-square value and p-value at $\chi^2=12.784$ and $p=0.049$ respectively. Enhanced market access results in improved profitability, which is achieved through understanding and addressing problems confronting the Small and Medium Horticultural Enterprises (Curran, 1999).

The study established that growth of the SMEs is dependent on market share controlled at 5% level of significance for Chi-square value and p-value statistic of $\chi^2=24.666$ and $p=0.00$ respectively. The same was also observed that profitability of Small and Medium Horticultural Enterprises is dependent on market share controlled at 5% level of significance with Chi-square value and p-value of $\chi^2=18.112$ and $p=0.009$ respectively. This is in agreement with Canz (2005) on SME competitiveness and market access, who argues that eliminating constraints in the areas of utilities, working capital, strong competition, shortage of inputs results in growth and profitability.

4.8.4 Objective Four

To determine the relationship between PPP support and performance of Small and Medium Horticultural Enterprises: This objective was achieved through the second main hypothesis for this study that PPP support and SME performance are independent. The study findings revealed that at 5% level of significance the performance of Small and Medium Horticultural Enterprises is dependent on PPP support with Chi-square value and p-value statistic of $\chi^2=52.62$ and $p=0.009$ respectively. The study further investigated the relationship between individual PPP intervention attributes and SME performance variables. These findings are discussed as follows:

Firstly, the study findings revealed that the growth and profitability of Small and Medium Horticultural Enterprises are dependent on the regulated production activities at 5% level of significance for Chi-square values and p-values statistic for growth $\chi^2=15.919$ and $p=0.014$ and for profitability $\chi^2=49.509$ and $p=0.00$ respectively. The dependence between the growth and profitability of Small and Medium Horticultural Enterprises and regulations is emphasised by Henson (2007) who recognises the need for Public-Private Partnership to help build sanitary and phytosanitary capacity to achieve compliance with export market SPS standards. The sequencing of the establishment of this capacity is critical to the process of establishing and maintaining market access. The study emphasised that building capacity is not a one off thing, there is a need for it to be maintained and to be further enhanced as export market standards continue to evolve. Thus, compliance must be seen as an on-going and a 'never ending' process of upgrading SPS management capacity in response to export market requirements.

Secondly, the study also found out that the growth and profitability of Small and Medium Horticultural Enterprises are dependent on product demand at 5% level of significance for Chi-square values and p-values are for growth $\chi^2=27.660$ and $p=0.046$ and for profitability $\chi^2=28.202$ and $p=0.041$ respectively. This is partly explained by the fact that horticultural production is seasonal and requires optimisation within the peak production period. The SME respondents indicated that through PPP intervention they are able to maximise returns within the peak periods. They further identified Finlay's Homegrown Kenya Ltd as being responsive to the price changes within the market. One SME owner sighted that during the peak season in 2010, he was able to sell a kilo of fine beans at Kshs. 90 which was a good price compared to the then prevailing price of Kshs. 80. From the literature, product demand created through PPP does not only influence the profitability and growth of SMEs, but also determines their competitiveness.

Respondents intimated that low price seasons are characterised by general market failure since most of their produce remains uncollected by Finlay's Homegrown Kenya Ltd. In some cases this failure is unpredictable, for example the 2010 Iceland volcano eruption and winter snow storms in Europe that ground horticulture exporting business. In the event of predicting market failure, the study observed that SMEs' farming practices are mainly regulated by availability of water so "farmers will plant when they harness water for irrigation in the hope that the market will turn out favourably." The produce by SMEs enlisted as out-growers is highly perishable for example fine beans have shelf life of 10 days if stored under refrigeration yet the products cannot be said to have significant domestic demand. These characteristics impede greatly on SME performance. Some respondents demonstrated these by planting crops such as potatoes and carrots to cushion against market failure. It was observed that short production cycles of 45 to 60 days are alluring to most SMEs who deem it as a great business venture. However, this is not always the case since increases in capacity may not be met by accompanying demand or reasonable prices. The SMEs therefore risk losing a whole investment during that production cycle. For this reason, product demand vis-à-vis level of market access is a major factor contributing to success of SMEs in horticulture industry.

Thirdly, the study findings revealed that growth and profitability of Small and Medium Horticultural Enterprises are dependent on production inputs at 5% level of significance for Chi-square values and p-values for growth $\chi^2=24.408$ and $p=0.037$ and for profitability $\chi^2=26.255$ and $p=0.019$ respectively. This means that SMEs that are supplied with production inputs as part of the PPP intervention arrangement are more likely to increase their profitability. The SME respondents acknowledged that through PPP intervention they have received certified quality seed, which is a critical success factor in their production systems. They further sighted that continued support in terms of research to improve the seeds to

match the changing weather patterns was on-going. The study noted the need for SMEs to re-organise and agglomerate themselves into production groups that would enable them to enjoy economies of scale. Through this agglomeration, the SMEs will be able to enjoy better bargaining power as buyers of production inputs as well as the suppliers of the outputs. This will result in higher profits hence better overall SME performance.

Fourthly, the study also found out that the growth and profitability of horticultural SME are dependent on appropriate technology at 5% level of significance with Chi-square values and p-values statistic for growth $\chi^2=28.685$ and $p=0.00$ and for profitability $\chi^2=21.148$ and $p=0.007$ respectively. This indicates that when PPP intervention is delivered around appropriate technology, it leads to increased profitability and growth. The SME respondents identified PPP intervention through dissemination of technology such as improved farming methods, more efficient irrigation methods like drip irrigation and also more importantly integrated pest management programme. These findings concurs with Radam *et al.* (2008) in analysing technical competence of SMEs, the number of firms considered technically efficient is only 3.06 per cent of total firms, while total technical inefficiency varies from 0.30 to 97.10 per cent. Thus, mechanisms are needed to promote economies of scale and develop technical skills, which will lead to higher efficiency levels among SMEs.

The challenges that SMEs face in translating technical knowledge into business practice was observed. Technology as a driver for SME growth must be re-emphasised with the aim of ensuring that they maintain competitiveness. Information technology (IT) development is changing the way information flows between countries. Marketing places are quickly substituted by 'marketing spaces' on the Internet. Movement of orders and money (transactions) are changing drastically and market information is becoming easily available 'just a click' away (VECO, 2006). Therefore, the study acknowledges the potential of

information technology in overcoming challenges of market access and addressing the asymmetry in bargaining power within the sector.

Fifthly, the study findings revealed that the growth and profitability of Small and Medium Horticultural Enterprises are dependent on training and skills development at 5% level of significance for Chi-square values and p-values statistic for growth $\chi^2=18.380$ and $p=0.005$ and for profitability $\chi^2=23.158$ and $p=0.009$ respectively. Training and skills development as a PPP intervention therefore is important to SME performance. All the 95 SME respondents acknowledge to having received extensive training. Horticultural production is very dynamic given the changes in market requirements and the changes in variety of crops under production. This necessitates constant training to transfer knowledge and ensure skills development for sustainable production. The SME respondents indicated that in spite of receiving training to help them improve production, they at times found it difficult due to resource constraints to transform this knowledge into skills.

Lastly, the study found out that growth and profitability of Small and Medium Horticultural Enterprises are independent of water resource management at 5% level of significance for Chi-square values and p-values statistic for growth $\chi^2=6.643$ and $p=0.759$ and for profitability $\chi^2=6.768$ and $p=0.747$ respectively. In recent times, water resource management has become a focal point for horticultural production as well as a concern for the natural resource management authorities. The SME respondents indicated that PPP support has not satisfactorily addressed water management issues. One respondent in Mwea indicated that although they access water for irrigation courtesy of the National Irrigation Board, they merely benefited because their farms lie within the supply network for the rice irrigation schemes. In Loitokitok, the respondent SMEs indicated that they benefited from community-based conservation efforts of the Kimana Wetland. This did not target development of Small

and Medium Horticultural Enterprises rather for other activities, and water supply is done on a rotational basis.

This means that PPP support has not addressed the issue of water access adequately and therefore access to water for irrigation was not significantly influencing the SMEs performance. There is need for the support efforts to be more focused at developing favourable policies by the public and private sectors to address water access for horticultural SMEs. The respondents cited water as a critical ingredient to the success and survival of SMEs in the sector. The SMEs dedicate a large share of their resources to procure water, and this creates a strain on the other aspects of production. Access to water for irrigation is essential for sustainable farming and therefore farm competitiveness (ActionAid, 2011). Currently most of the SMEs interviewed rely solely on rain in their farming activities and during periods of drought, they are faced with crop failure. The study acknowledged water resource management as a key area where PPP practices were evident but it did not focus primarily on developing horticultural SMEs. In Loitokitok region, the researcher observed that there had been concerted efforts to address obstacles to accessing water. The community and the SMEs had organised themselves into associations which are mandated to oversee the management of the water resource. These associations received support from the Government and NGOs but were characterised by competing demands for water. The Government has recognised their legitimacy and in compliance with legal requirements issued them with water permits. The SMEs pay a seasonal fee to the association for the use of water. Despite having obtained permits, uncoordinated efforts by government agencies to conserve water resources have resulted in conflicts hampering the development and performance of the horticultural SMEs. The SMEs pointed out that the directive from NEMA ordering them to keep off the wetland and riparian land had not been consultative.

The NGOs have made direct contributions in addressing access-related problems through construction and maintenance of furrows over time. The study also identified water conservation efforts through the Kimana Wetland Association and World Wildlife Fund in constructing a perimeter wall round the wells and advocating tree planting. The protection of the water sources has also provided benefits that address sanitary and phytosanitary issues.

In Mweiga Region, the researcher observed that there are unitary efforts to address water resource issues. In some cases, communities have come together to pool resources so as to access water. As the control and usage has not been enforced, each user draws as much water as they desire, at times at the expense of their counterparts, and this in most cases triggers conflict. However, most of the users were noted to have appreciated the need for legal compliance and had acquired water-use licenses from the relevant authorities. In spite of such compliance, the researcher observed that the water regulating authority will issue directives against water use for irrigation during dry spells. These directives are made without consultations and prior notice, the end result being severe losses to the SMEs as a result of crop failure. The unitary system of water management observed in Mweiga area does not support any proactive conservation efforts neither does it ensure any interventions on sanitary and phytosanitary measures. Homogenous observations have been made in Meru, Makuyu, Kathiani, Rumuruti, Ol Kalou and Narok. The SMEs in Molo area were found to rely on rain-fed agriculture.

4.8.5 Objective Five

To determine the relationship between market access and the performance of the Small and Medium Horticultural Enterprises when intervened with Public-Private Partnership (PPP) support. This objective was to determine the relationship between market access and the performance of Small and Medium Horticultural Enterprises when intervened with PPP

support. To this end, the study hypothesised that market access is independent of PPP support. The study findings revealed that market access is dependent on PPP support at 5% level of significance for Chi-square value and p-value statistic of $\chi^2=10.87$ and $p=0.01$ respectively. To expand on the analysis between market access variables and PPP support variables, Chi-square test of independence was performed and the findings are discussed below.

Firstly, the study found out that the level of market access and market share are dependent on regulated production activity at 5% level of significance. The Chi-square values and p-values statistic of level of access $\chi^2=25.240$ and $p=0.00$ and for market share $\chi^2=26.449$ and $p=0.048$ respectively were observed. The regulation of production activity occurs through strict quality standards (Global GAP) and legislation imposed by the export market destinations. The Small and Medium Horticultural Enterprises (are dependent on PPP support that enables them to meet the higher quality standards hence market access. PPP support delivered through regulation of production activity helps in minimising waste and postharvest loss.

Secondly, the study findings revealed that the levels of market access and market share are dependent on product demand at 5% level of significance. The Chi-square values and p-values statistic of level of access $\chi^2=21.745$ and $p=0.038$ and for market share $\chi^2=20.499$ and $p=0.032$ respectively were observed. The level of market access hence the market share commanded by the respective SME was boosted through PPP intervention by creating product demand through the enhanced value chain. PPP intervention to address the market forces especially low demand through contract purchase agreement helped boost the level of market access.

Thirdly, the study found out that the level of market access and market share are dependent on production inputs at 5% level of significance. The Chi-square values and p-values statistic for level of access $\chi^2=16.481$ and $p=0.043$ and for market share $\chi^2=17.764$ and $p=0.032$ were obtained respectively. PPP intervention provides production inputs to SMEs that meet the dictated market quality standards. These findings were consistent with Tschirley *et al.* (2004) who emphasised that access to markets remains a big challenge for SMEs in horticulture. In assessing the nature of market access challenge, the study found out that there are two types of market access groups; in-growers and out-growers. The in-growers' market is characterised by export demand that remains available throughout the year, meaning that these do not experience product demand challenges. In this study, in-growers refer to farms owned by Finlay's Homegrown Kenya Ltd while out-growers are basically the farms that have been contracted by Finlay's Homegrown Kenya Ltd to supplement its supply. The out-growers are SMEs that were identified as the respondents to the study. The out-growers' market is determined essentially by Finlay's Homegrown Kenya Ltd. This means high proportions of harvest and accompanying high prices will be available to the SMEs if Finlay's Homegrown Kenya Ltd.'s production requires heavy supplements. During the period of data collection especially in the month of February 2011, the researcher observed that a kilogram of fine beans were bought by Finlay's Homegrown Kenya Ltd from the SMEs at Kshs. 70 contrary to the price range reported of between Kshs. 95 and Kshs. 35.

Fourthly, the study found out that level of market access and market share are dependent on appropriate technology at 5% level of significance for Chi-square values and p-values statistic are for level of access $\chi^2=32.893$ and $p=0.00$ and for profitability $\chi^2=32.190$ and $p=0.001$ respectively. PPP intervention is delivered through appropriate technology as a response to the need for increased market access and market share.

Fifthly, the study revealed that the level of market access and market share is dependent on training and skills development at 5% level of significance. The Chi-square values and p-values statistic of level of access $\chi^2=96.585$ and $p=0.00$ and of market share $\chi^2=84.595$ and $p=0.009$ respectively were observed. The PPP intervention input in terms of training and skills development helps the SME to address the market challenges that would impede SME performance.

Lastly, the study found out that level of market access and market share are independent of water resource management at 5% level of significance. The Chi-square values and p-values statistic of level of access $\chi^2=6.643$ and $p=0.759$ and market share $\chi^2=6.768$ and $p=0.747$ respectively. PPP intervention that is focused on addressing water issues helps to achieve the level of production that meets market requirements in terms of quantity and quality. The independence between water resource management and market access variables as indicated shows the need for PPP support.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the major research findings, conclusions from the findings and recommendations drawn from the conclusions.

5.2 Summary of Findings

The general objective of this thesis was to establish the contribution of Public-Private Partnerships to the performance of small and medium horticultural enterprises in Kenya. The thesis sought to understand the contribution of PPP support to the performance of horticultural SMEs. The study was based on five objectives that were formulated and findings discussed in detail in Chapter 4 and summary of findings presented under each objective.

In the first objective, it was found that Small and Medium Horticultural Enterprises received their support from public and private sector and NGOs, and start-up capital was observed to come from family savings. Private sector support was mainly from Finlay's Homegrown Kenya Ltd, other horticultural export companies and agrichemical companies. Public sector support was received from the Government and government agencies including the Ministry of Agriculture, HCDA, KEPHIS and KARI; development partners (public, private and NGOs) also supported SMEs.

The second objective revealed the nature of support that the SMEs receive. The SMEs receive financial, training, legal, technology, infrastructure, market access, managerial and consultancy support, farm inputs and information. The study indicated that provision of farm

inputs and financial support were the least forms of PPP support that the SMEs received. Training support together with managerial and consultancy services were the most accessed.

Findings from objective three showed that performance of Small and Medium Horticultural Enterprises is dependent on market access at 5% level of significance ($\chi^2=40.071$, $p=0.003$). It was also discovered that growth and profitability of the SMEs were dependent on the level of access and market share. Further, improved market access provides the Small and Medium Horticultural Enterprises with the opportunity for growth and profitability.

Results from objective four revealed that horticultural SME performance is dependent on PPP support at 5% level of significance ($\chi^2=52.62$, and $p=0.009$). Support to the challenges faced by the SMEs is participatory between the public and private sectors. The study also discovered that horticultural SME performance is dependent on regulation of production activity, product demand, production inputs, appropriate technology and training and skills development. Water resource management was found to be independent of horticultural SME performance. In most of the cases, the benefit to the Small and Medium Horticultural Enterprises was as a result of spill over effects as seen in Mwea, Naivasha and Loitokitok.

The fifth objective focused on identifying the influence of PPP support on poor market access and performance of horticultural SMEs. The findings indicate that market access is dependent on PPP support at 5% level of significance ($\chi^2=10.87$, $p=0.01$). Narrod *et al.* (2008), argues that market access requires stringent food safety requirements and therefore to enable SME to remain competitive in such a global system, new institutional arrangements are required and specifically mentioned the role that PPPs can play in creating farm to market linkages.

5.3 Conclusions

The study was driven by the need to provide a framework upon which performance of Small and Medium Horticultural Enterprises could be improved through Public-Private Partnership, resulting in macro-economic benefits. This thesis generated five objectives and the main subject underlying these objectives related to the contribution of Public-Private Partnerships to the performance of the horticultural SMEs. Founded on these objectives and summary of findings the following conclusions were made.

Based on the first objective to document the sources of support that Small and Medium Horticultural Enterprises received, the study concludes that SMEs get support from the private and public sectors and NGOs. Private sector support is dominant and is provided on the basis of a contractual engagement. As it is clear that private sector support is mutually beneficial to the private sector and Small and Medium Horticultural Enterprises, it was therefore purposely targeted towards the SMEs. On the other hand, the public sector and NGO support tends to be obligatory and does not single out Small and Medium Horticultural Enterprises as recipients of the support.

The second objective was to document the nature of support that the horticultural SME received. The study concludes that the Small and Medium Horticultural Enterprises receive support such as: production inputs, training, infrastructural facilities, technology, legal and managerial advice, information and consultancy services and financial support. Production inputs and financial support were the least offered forms of support that are important for Small and Medium Horticultural Enterprises performance.

The third objective was to determine the relationship between market access and the performance of Small and Medium Horticultural Enterprises. The study concludes that the performance of Small and Medium Horticultural Enterprises is dependent on improved

market access. Small and Medium Horticultural Enterprises growth and profitability are influenced by the level of market access and the market share that they are able to control.

The fourth objective was to determine the relationship between PPP support and the performance of Small and Medium Horticultural Enterprises. The study concludes that the performance of Small and Medium Horticultural Enterprises is dependent on PPP support. PPP support was delivered through regulation of production activity, product demand, production inputs, appropriate technology and training and skills development to enhance SME performance. The current efforts in water resource management have not taken into consideration the critical role of water as an input in horticultural SME performance.

The fifth objective was to determine the relationship between market access and the performance of Small and Medium Horticultural Enterprises when intervened with PPP support. The study concludes that market access is dependent on PPP support. PPP support improves market access and therefore improved horticultural SME performance. PPP support is critical in accessing export markets especially where meeting stringent SPS requirements is a necessity.

On the basis of a sample of 941 SMEs, this study has explored in depth the influence of the public and private sector partnerships on the relationship between market access and performance of Small and Medium Horticultural Enterprises in Kenya. The findings indicate that there are significant positive relationships between market access, SME performance and PPP interventions. Despite the progress so far, it's widely recognised that stakeholders involved need to make more effort in order to capitalise on mutual strengths based on an agreed framework and thus accelerate the process of SME development. The study highlighted some of the policy areas relevant for success of the SMEs.

5.4 Recommendations

Based on the discussion, summary and conclusion of this thesis the following recommendations were made:

Firstly, the study recommends that there is need to develop a framework that identifies and defines the roles of the support providers based on their strengths.

Secondly, the study endorses that support providers should focus on developing a framework to deliver financial support and production inputs. This can be achieved through involvement of all horticultural practitioners - finance providers, government agencies, agricultural researchers and agrichemical companies to enable the development of synergies and economies of scale through seamless value chain systems.

Thirdly, given that support is not limited to one kind of organisation, the study proposes institutional arrangements that take cognisance of the various technical capabilities of each support provider. These arrangements can be achieved through collaboration between the public and private sectors to support compliance in meeting market quality standards.

Fourthly, to continue accessing export markets, the public and private sectors and NGOs must continue to provide appropriate expertise to the horticultural SME managers to broaden their market knowledge.

Lastly, if the efforts on water resource management are to contribute to the performance of horticultural SMEs, a consultative approach to formulation and implementation of policies within water resource management must be put in place and these must go beyond mere conservation efforts. The government agencies charged with water resource management and conservation must forge partnerships by collaborating with the private sector, NGOs and

Small and Medium Horticultural Enterprises in the process. This cooperation should be similar to what is in place for rice farming in the Mwea scheme.

The study proposes a thorough review of the institutional framework that brings all the players together so as to enhance coordination in the industry and effective implementation of agreed activities. Successful pursuit will require greater infusion of capital, technology, knowledge by the private sector, and in turn, for the public sector to create the requisite policy and regulatory mechanisms to ensure beneficial outcomes for the SMEs and other stakeholders.

Water is a major factor of production for horticulture. There is need to put in place efficient irrigation systems similar to what is seen in the rice schemes in Mwea. In Naivasha there is a long term water management and irrigation plan that involves conservation of all water catchment areas through Public Private Partnership (PPP). This approach needs to be extended to other horticultural producing regions.

In summary, both the public and private sector must strive to develop an overall conducive environment for entrepreneurship, innovation and therefore SME growth. Government measures to promote SME growth should be carefully focussed and aimed at making markets work more efficiently and at providing genuine incentives for the private sector to assume a proactive role in supporting SME. For example, in financing where necessary banking arrangements should be reformed in line with market base principles. Government should act to improve awareness among SMEs in terms of financing options (including other support) available to them from various sources - be it from banks, the private sector or the government itself. Developing an environment that enables SMEs to take advantage of the ever increasing knowledge based economy is critical. If the public and the private sectors work together and take these steps, both will realise significant benefits of PPPs. This will

further improve the capacity of SMEs to solve problems that cannot be addressed singly by individual sector acting on its own.

5.5 Implications and Further Research

The study has revealed that the PPP support positively influence SME performance. The Government of Kenya should therefore recognise this and develop a channel to promote Public-Private Partnership as a vehicle for enhanced SME support. Future research can be conducted to identify solutions to these problems and more in depth studies are needed to better understand the interaction of PPPs.

5.5.1 Theoretical Contributions and Implications

The study contributes to the theoretical disposition on Public-Private Partnerships. The findings of this research have established that PPP support has positive influence on SME performance. These findings agree with the theory that PPP are forged to overcome challenges and achieve efficiencies and effectiveness. PPP support must be present for the SMEs to overcome the challenges they face for survival. The inverse relationship between regulation and SME performance is an indicator that the public sector (government) should dedicate more resources to address the performance constraints that the SMEs face. These can be achieved through improving the SMEs' market share, profitability, and access to markets, resources, technology, and knowledge. The findings here therefore build on existing theory and evidence that argues for contribution of PPP support to the performance of horticultural SMEs.

5.5.2 Implications for Managers

Findings of this study provide preliminary ground for management strategies on provision of PPP support. The support providers are called upon to cooperate and structure the support to

avoid duplication of efforts. As the recipients of the support, the SMEs being can be motivated to agglomerate, making them more accessible and understood by support providers. Awareness of the relative importance and advantages of PPP support will perhaps foster a better operating environment for the SMEs.

5.5.3 Implications for Practitioners

The main practical implication for PPP support providers is that partnership must be a conscious effort modelled to work alongside the SMEs. Whereas current efforts have positively influenced SME performance, the gains would be enormous if the support was structured and cooperated.

On the other hand, the need for SMEs and PPP support providers to develop trust and transparency to overcome challenges of working together cannot be overemphasised. The public and private sectors, donors and NGOs will benefit from a network of information on support of SMEs in identifying the gaps.

Above all, the findings provide valuable insights for SMEs, policy makers and private sector players. Stakeholders could use this study to make better choices in relation to projects that focus on SME support.

5.5.4 Implications for Policymakers

Over the years, Kenya's development agenda has, albeit with mixed successes, aimed largely at reducing poverty and its debilitating consequences while also building a strong economy. Currently, the country's new development blueprint dubbed Vision 2030 aims at transforming Kenya into a newly industrialised 'middle income country providing high quality of life to all its citizens by the year 2030.' Equally important, the Vision 2030 plan is also expected to pay attention to the Millennium Development Goals which pay particular

attention to: elimination of extreme poverty, achievement of universal primary education, gender equality, and reduction of child mortality, improvement of maternal health, lower HIV and AIDS and major diseases, environmental sustainability and better partnerships with international development partners.

The Vision 2030 is to be effectively achieved through consistent Medium Term Plans (MTP), which are 5-year development plans starting with the 2008-2012 period. These plans are anchored on the economic, social and political pillars, each of which identifies crucial flagship projects that are expected to ‘set pace for vessels behind them’.

Underpinning these pillars are the key principles of equitable social development, people centeredness, accountability and democratic leadership, which resonate well with PPP in the horticultural subsector that is making a meaningful contribution. As a basis for the transformation of our society, the economic pillar is expected to sustain the economic growth at 10% per annum for the next 25 years. To achieve this, current macro-economic stability must be maintained and bottlenecks such as low savings to GDP ratio, poor infrastructure and high energy costs must be dealt with among other critical problems. Sectors to be given priority include agriculture, tourism, trade, manufacturing industry and the financial sector. A number of poor predominantly agricultural countries have transformed into Newly Industrialised Countries (NICs) in a space of a generation and Kenya too has that opportunity through well-grounded and informed policies.

However, implementation of PPPs to support growth of SMEs in horticulture is currently on an ad-hoc rather than in a structured manner. Although the Government mentions PPP in its NHP and Vision 2030, a framework that outlines how the various stakeholders are supposed to work together does not exist. Stakeholders have been compelled to work together when faced with a situation that was too complex for them to handle alone. However, this has

mostly been driven by the private sector, as is the case of water resource use in Naivasha. It is important to note that the study identified the emergence of NGOs and CBOs as a significant third player in the PPPs working with the private sector especially where the Government was absent, and therefore their support is important going forward. With issues relating to climate change and globalisation, a change in attitude of government in the way it supports agriculture should be encouraged i.e. playing a more facilitative role and providing the right enabling environment is crucial. External drivers can facilitate or hinder a global trader disadvantaging the small producers who must produce what the market wants and not what they have in their minds or want to produce. Supporting Small and Medium Horticultural Enterprises through PPPs is important in enhancing their development.

5.5.5 Future Research

The study suggests that research needs to be conducted to establish what regulatory framework needs to be put in place to enable the concept of Public-Private Partnership to be implemented effectively and how this will help to achieve Vision 2030 which is Kenya's blue print to economic development. There seems to be no one best practice for PPP arrangements and this is what needs to be studied. Best practice is dependent on SME capacity, structure of the value chain including global trade dynamics. Exploring this would provide insights and models of what best PPP practice to enhance sustainable SME development should be. How the public and private sectors are organised to communicate, consult and cooperate with each other is important and needs further investigation.

PPP helps to provide deeper collaboration between farmers and businesses helping to build entrepreneurial skills and overcome obstacles in the value chain that would otherwise lead to failure. PPP thus ensure that SMEs receive good returns for their produce on one hand and businesses are assured of the quality, quantity and consistency of the produce. With the

government provide the enabling environment. The private sector and NGOs have become critical players in the development of SMEs and must not be seen as peripheral to these efforts. They must be incorporated through formal PPP arrangements embedded in the national structures, and monitored and coordinated by an agency that brings all the actors together including the contributory sectors of government. Given the cross-sectorial nature of these issues and the Government's facilitating role, the Government must provide the lead in these efforts as effective strategies require holistic, multi-dimensional and coordinated approaches which engage with institutions across all sectors where bottom-up and top-down approaches complement each other in mutual pursuit to support SMEs growth through the creation of an enabling environment.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR SME OWNER/ MANAGER

KENYATTA UNIVERSITY

SCHOOL OF BUSINESS

DEPARTMENT OF BUSINESS AND ADMINISTRATION

Questionnaire for SMEs Owners/Managers in the Horticultural subsector

Dear Respondent,

By completing this questionnaire, you participate in a study for my final PhD thesis at Kenyatta University, Nairobi. I am researching on *Public Private Partnerships and Horticultural SME performance in Kenya*. It is very important that you are honest in your response. The answers to these questions remain completely confidential.

I have obtained the necessary approval from Finlays Homegrown Kenya Ltd and been assured your cooperation.

At this point, I would like to express my gratitude for your participation.

Kind Regards

SECTION A: INFORMATION ON SMEs OWNERS/MANAGERS

1. Gender

(i) Male []

(ii) Female []

2. Age

(i) Less than 20 years []

(ii) 21-30 years []

(iii) 31-40 years []

(iv) 41-50 years []

(v) 50 years and above []

3. What is your level of education?

(i) Primary []

(ii) Secondary []

(iii) Technical colleges and other tertiary institutions []

(iv) University []

4. How would you describe your business? (Tick as appropriate)

(i) Sole proprietor []

(ii) Partnership []

(iii) Joint Venture []

(iv) Others (Please specify) _____

5. What is your position in this business?

(i) Owner []

(ii) Manager []

(iii)Both []

(iv)Others (Please specify)_____

SECTION B: INFORMATION ON SME's CHARACTERISTICS

6. What is the location? _____

7. In which year did you start this business? _____

8. What's the annual production of your farm in tonnes? _____

9. What is the area of land under crop production in your farm? ____

SECTION C: SOURCES SUPPORT FOR SMEs

10. What were the sources of funds for starting this business (Please tick the appropriate one)?

(i) Personal savings []

(ii) Bank loan []

(iii)Public []

(iv)Private sector []

(v) Others (Please specify) _____

11. Have you received any support from any of the following?

(i) Government

(ii) Donors

(iii) NGOs

(iv) Private Sector

(v) Others (Please specify) _____

12. When did Finlays Homegrown Kenya Ltd start supporting you? _____

13. Have you ever been supported by another company other than Home grown?

(i) Yes (ii) No

14. If yes to Q 13 above, which company? _____

15. Is the support that you received from the company in Q 14 better compared with Finlays Homegrown Kenya Ltd?

(i) Yes (ii) No

SECTION D: NATURE OF SUPPORT THAT SMEs RECEIVE

16. Finance related Support

(a) Have you received financial support?

(i) Yes [] (ii) No []

(b) How do you rate the importance of the financial support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

17. Legal issues related Support

(a) Have you received legal related support?

(i) Yes [] (ii) No []

(b) How do you rate the importance of the legal related support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

18. Infrastructure related support

(a) Have you received infrastructural support?

(i) Yes [] (ii) No []

(b) How do you rate the importance of the infrastructural support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

19. Technology related support

(a) Have you received technological support?

(i) Yes [] (ii) No []

(b) How do you rate the importance of the technological support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

20. Management related support

(a) Have you received managerial support?

(i) Yes [] (ii) No []

(b) How do you rate the importance of the managerial support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

21. Provision of Production Inputs

(a) Have you received support through provision of production inputs?

(i) Yes [] (ii) No []

(b) How do you rate the importance of provision of production inputs?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

22. Provision of information and consultancy related support

(a) Have you received support through provision of information and consultancy services?

(i) Yes [] (ii) No []

(b) How do you rate the importance provision of information and consultancy services?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

23. Training and Skills development support

(a) Have you received training and skills development support?

(i) Yes [] (ii) No []

(b) How do you rate the importance training and skills development support?

Very Important [] Important [] Neutral [] Not Important [] Not Very Important []

(c) Have you received training and skills development in any of the areas below?

(i) Hygiene (phytosanitary) []

- (ii) Safe use of pesticides
- (iii) Integrated pest management
- (iv) Water management
- (v) Others (Please specify) _____

SECTION E: PUBLIC PRIVATE PARTNERSHIP INTERVENTION VARIABLE

24. Regulation of production activity

- (a) Do you face challenges in meeting the imposed quality standards for your produce?
 - (i) Yes
 - (ii) No
- (b) Do you receive support to overcome these quality constraints?
 - (i) Yes
 - (ii) No

25. Demand for Produce

- (a) How would you access the role of the private sector (Finlays Homegrown Kenya Ltd) in helping you to access horticultural markets

Impossible Possible Neither possible nor impossible Easy Don't know
- (b) How would you access the role of the Government (HCDA or Ministry departments) in helping you to access horticultural markets

Impossible Possible neither possible nor impossible Easy Don't know

26. Technology

- (a) Do you receive appropriate technological support for your business operations?

(i) Yes [] (ii) No []

(b) How would you rate the relevance of technological support to your business operations?

Very High [] High [] Moderate [] Low [] Very low []

27. Production Inputs

(a) Do you receive adequate and timely supply of production inputs to support your business operations?

(i) Yes [] (ii) No []

28. Training and Skills Development

(a) How would you rate the relevance of training and skills development received in supporting your business?

High [] Moderate [] Low [] Very Low [] None []

(b) Does the Government (agencies) provide sufficient and targeted training to address the problem you face in your business?

(i) Yes [] (ii) No []

(c) Does Finlays Homegrown Kenya Ltd provide sufficient and targeted training to address the problem you face in your business?

(i) Yes [] (ii) No []

29. Water Resource Management

(d) How would you rate your level of access to water for irrigation?

High [] Moderate [] Low [] Very Low [] None []

(e) Have you received support from Government (agencies) in addressing water related problems?

(i) Yes (ii) No

(f) Have you received support from Finlays Homegrown Kenya Ltd in addressing water related problems?

(i) Yes (ii) No

SECTION F: SME PERFORMANCE VARIABLES

30. SME Profitability

(a) How would you rate the profitability of your business?

Highly profitable Profitable Medium Not profitable Not highly profitable

31. SME Growth

(a) How would you describe your rate of your business growth?

Very fast growth Fast growth Medium growth Slow growth Very slow growth

(b) What was your start-up capital (Kenya Shillings)? (Tick as appropriate)

Below 100,000 100,000 -500,000 500,000 -1 Million Above 1 Million Others

(indicate the amount) _____

(c) What is your working capital base today (Kenya Shillings)? (Tick as appropriate)

Below 100,000 100,000 -500,000 500,000 -1 Million Above 1 Million Others

(indicate the amount) _____

(d) What is the number of employees you employed at start up? (Tick as appropriate)

Upto 10 employees [] Above 10 employees []

(e) What is the number of employees currently? (Tick as appropriate)

Up to 10 employees [] Above 10 employees []

(f) How would you rate the possibility of expanding your business in the next two years?

High [] Moderate [] Low [] Not possible [] Do not know []

32. SME Market Share

(a) How would you rate/describe the market share of your business in your locality?

Very large [] Large [] Medium [] Small [] Very small []

SECTION G: SME MARKET ACCESS

33. SME Market Accessibility

(a) Have you receive support with access to market?

(i) Yes [] (ii) No []

(b) How would you rate the level of your business' access to market?

Very High [] High [] Moderate [] Low [] Very low []

You have completed the questionnaire. If you would like to receive the results of my study or would like more information, please get in touch through email d.rangi@gmail.com.

Thanks again for your cooperation.

Dennis Rangi

(I84/7752/2002)

APPENDIX III: HORTICULTURAL PRODUCERS IN KENYA

<p>AAA Growers Ltd Mr. Neville Ratemo P.O. Box 32201 – 00600 Nairobi Tel: 020-4453970 – 4 neville@aaagrowers.co.ke, admin@aaagrowers.co.ke</p>	<p>Agrifresh Kenya Ltd Mr. W. Dolleman P.O. Box 63249, Nairobi Tel: 020-8560650/1/2 info@agrifreshkenya.com</p>	<p>Ansa Horticultural Ltd Mr. Sam Wangai P.O. Box 53579 Nairobi Tel: 020-2367705/821884 info@ansa-horticultural.com</p>	<p>Avenue Fresh Produce Ltd Mr. C. Muchiri P.O. Box 3865 – 00506 Nairobi Tel: 020-825342/820015 info@avenuefresh.co.ke, avenue@avenue.co.ke</p>	<p>Belt Cargo Services Export Ltd Mr. J. Muigai P.O. Box 688, Ruaraka Tel: 020-4448821/4448822 beltcargo@swiftkenya.com</p>
<p>Dominion Vegfruits Ltd Mr. John Mairura P.O. Box 55078 – 00200, Nairobi Tel: 020-823002/3 vegfruits@wananchi.com</p>	<p>East African Growers Ltd Mr. P. Mahajan P.O. Box 49125 Nairobi Tel: 020-822017/25 peeush@eaga.co.ke</p>	<p>Everest Enterprises Ltd Mr. J. Karuga P.O. Box 52448, Nairobi Tel: 020-824141/823333 jkaruga@everest.co.ke,</p>	<p>Fian Green Kenya Ltd Mr. F. Thuita P.O. Box 60455, Nairobi Tel: 020-826157 info@fiangreens.com</p>	<p>Fresh An Juici Ltd Ms. Maleka Akaberali P.O. Box 39833 – 00623, Nairobi Tel: 020-826090/3 maleka@freshanjuici.co.ke</p>
<p>Frigoken Ltd Mr. D. Karim. P.O. Box 30500, Nairobi Tel: 020-8560096/8560449 frigoken@africaonline.co.ke</p>	<p>Global Fresh Ltd R. Chaudhry P.O. Box 3970 – 00100, Nairobi Tel: 020 – 827549/50 info@globalfresh.co.ke</p>	<p>Greenlands Agro Producers Ltd Mr. G. Murungi P.O. Box 78025, Nairobi Tel: 020-827080/1/2 murungim@greenlands.co.ke</p>	<p>Hillside Green Growers & Exporters Co. Ltd Ms. Eunice Mwangera P.O. Box 73585 -00200, Nairobi Tel: 020- 3878134/74 infoland@nbnet.co.ke</p>	<p>Finlays Homegrown Kenya Ltd Kenya Ltd Mr. R. Fox P.O. Box 10222, Nairobi Tel: 020-3873800/3874193 Richard.Fox@f-h.biz</p>

<p>Indu farm EPZ Ltd Mr. C. Bernard P.O. Box 42564, Nairobi Tel: 020-550215/6/7 info@indu-farm.com or christian.bernard@indu- farm.com</p>	<p>Kakuzi Ltd Mr. R. Collins P.O. Box 24, Thika Tel: (060)33012/31393 rcollins@kakuzi.co.ke/ mail@kakuzi.co.ke</p>	<p>Kandia Fresh Produce Suppliers Ltd Ms. Lucy Mundia P.o. Box 42806 – 00100, Nairobi Tel: 020 – 3500866 kandia@swiftkenya.com</p>	<p>Keitt Ltd Mr. Asif Aman P.o. Box 6390- 00200, Nairobi Tel: 020 – 822829 asif@keitt.co.ke</p>	<p>Kenya Horticultural Exporters (1977) Ltd Mr. Manu Dhanani P.O. Box 11097, Nairobi Tel: 020-650300/1/2 manu@khekenya.com</p>
<p>Makindu Growers & Packers Ltd Mr. O.P. Bij P.O. Box 45308, Nairobi Tel: 020- 822812 info@makindugrowers.c o.ke</p>	<p>Mboga Tuu Ltd Mr. J. Kent P.O. Box 47070, Nairobi Tel: 020- 3877988/3561196 mtl@wananchi.com</p>	<p>Migotiyo Plantations Ltd Mr. B. K. Rao P.O. Box 19, Mogotio Tel: 051 – 2214898/020- 4449128/9 alphegasisal@wananchi.c om</p>	<p>Njambiflora Ltd Ms. Marie Njambi P.O. Box 9728-00100, Nairobi Tel: 020-822506/7 njambiflora@timefast.co.ke</p>	<p>Nicola Farms Ltd Ms. Grace Wanjiku P.O. Box 64-10205, Maragua Tel: 020-2048874/76 marketing@nicola.co.ke</p>
<p>Sacco Fresh Ltd Mr. J. M. Muia P.O. Box 26211-00100, Nairobi Tel: 020-824687/8 info@sacco-fh.com</p>	<p>Samawati Fresh Produce (K) Ltd Ms. M. Nyambura P.O. Box 214 – 00618, Nairobi Tel:0722890030bmwangi @samawatifresh.com</p>	<p>Shree Ganesh Fruits & Vegetables Ltd Mr. Kanji Kalyan Patel P.O. Box 83745 – ,Mombasa Tel: 020-80243645 meleka@freshanjuici.co.k e</p>	<p>Sian Exports Kenya Ltd Mr. S.S. Mangat P.O. Box 43042-00100, Nairobi Tel: 020-822220 rano@sianexports.com</p>	<p>Sunripe (1976) Ltd Mr. Hasit Shah P.O. Box 41852, Nairobi Tel: 020-822518/822879 info@sunripe.co.ke</p>
<p>Value Pak Foods Ltd Mrs. J. R. Patel P.O. Box 42828, Nairobi Tel: 020-823438/823439 valuepak@wananchi.com</p>	<p>Vegpro Kenya Ltd Mr. B. Patel P.O. Box 32931, Nairobi Tel: 020-82283-4 bharat@vegpro- group.com,</p>	<p>Wamu Investments Ltd Mrs. P. Muriuki P.O. Box 26026, Nairobi Tel: 020-822441/824990 wamu@swiftkenya.com, peris@wamu- investments.com</p>	<p>Waqash Enterprises Ltd Mr. S. Gulamhussein P.O. Box 90728, Mombasa Tel: 041-2314596/2225512 waqash@swiftmombasa.co m, exports@wagash.co.ke</p>	<p>Wilham Kenya Ltd Mr. P. Mahajan P.O. Box 52494, Nairobi Tel: 020-822030/827486 peeush@eaga.co.ke</p>

Woni Veg-Fru Importers and Exporters Ltd Mr. T. K. Mutiso P.O. Box 52115, Nairobi Tel: 020-532805/650350 woni@swiftkenya.com				
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Source: FPEAK, 2011

APPENDIX IV: RESEARCH PERMIT

CONDITIONS

1. You must report to the District Commissioner and the District Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2)/four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice



REPUBLIC OF KENYA

RESEARCH CLEARANCE PERMIT

GPK 6055—3m—10/2009

(CONDITIONS—see back page)

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PAGE 3

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss..... DENNIS
L. KIRENGE RANGI

of (Address)..... KENYATTA UNIVERSITY
P.O. BOX 43844, NBI

has been permitted to conduct research in.....

.....**Location,**

.....**District,**

.....**CENTRAL, EASTERN & RIFT VALLEY Provinces**

on the topic..... contribution of Public-Private Partnerships on the performance

..... of Small and Medium Horticultural

..... Enterprises in Kenya.

.....

.....

for a period ending ... 28TH FEBRUARY, 20... 12

NCST/RRI/12/1/SS-011/08
Research Permit No.

Date of issue 17/01/2011

Fee received..... SHS 2,000



*Applicant's
Signature*

*Secretary
National Council for
Science and Technology*