

DECLARATION
I hereby declare that this is my original work and has not been presented for
any other purpose.

THE IMPACT OF SANITARY AND PHYTOSANITARY
REQUIREMENTS ON THE EXPORT TRADE
OF SMALL SCALE HORTICULTURE
GROWERS IN KENYA

Date: 14/10/2006

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P. O. Box 30197
NAIROBI

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P. O. Box 30197
NAIROBI

BY:


SUSAN.N/NJOROGE

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Business, University of Nairobi

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DECLARATION

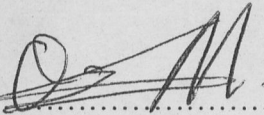
This management research project is my original work and has not been presented for a degree award in any other University

Signed.....
SUSAN.N.NJOROGE
D61/P/7703/03

Date..... 14/09/2006.....

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P. O. Box 30197
NAIROBI

This management research project has been submitted for examination with my approval as a University Supervisor

Signed.....
DR MARTIN OGUTU
Lecturer
School of Business
University of Nairobi

Date..... 27/9/2006.....

DEDICATION

I wish to give my love to my husband who was indeed understanding. He stood by me, prayed for me and loved me unconditionally as long as I could remember.

Also to my Dad who taught me the importance of education.

They both hold a dear place in my heart and I thank God for their love and support throughout the MBA programme.

**UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P. O. Box 30197
NAIROBI**

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EUREPGAP- Euro-Retailer Produce Working Group- Good Agriculture Practises

FOB- Free on Board

GATT- General Agreement on Tariffs and Trade

GDP- Gross Domestic Product

HCDA- Horticulture Corporation Development Authority

IT- International Trade

ITC- International Trade Committee

IMF- International Monetary Fund

IPPC- International Plant Protection Convention

MFN- Most Favoured Nations

MITI- Ministry of International Trade and Industry

MOA- Ministry of Agriculture

MRL- Maximum Residue Limit

NGO- Non-Governmental Organisations

OECD- Organization for Economic Co-operation and Development

OIE- Organization Mondiale de la Sante Animale

SPS- Sanitary and Phytosanitary

TBT- Technical Barriers to Trade

US- United States

USAID- United States Aid International Development

WTO- World Trade Organization

LIST OF ABBREVIATIONS

CIF-	Cost Insurance at Freight
CIP-	Cost Insurance Paid to
EU-	European Union
EUREPGAP-	Euro- Retailer Produce Working Group- Good Agriculture Practises
FOB-	Free on Board
GATT-	General Agreement on Tariffs and Trade
GDP-	Gross Domestic Product
HCDA-	Horticulture Corporation Development Authority
IT-	International Trade
ITC-	International Trade Committee
IMF-	International Monetary Fund
IPPC-	International Plant Protection Convention
MFN-	Most Favoured Nations
MITI-	Ministry if International Trade and Industry
MOA-	Ministry of Agriculture
MRL-	Maximum Residue Limit
NGO-	Non-Governmental Organisations
OECD-	Organization for Economic Co-operation and Development
OIE-	Organization Mondiale de la Sante Animale
SPS -	Sanitary and Phytosanitary
TBT-	Technical Barriers to Trade
US-	United States
USAID-	United States Aid International Development
WTO-	World Trade Organization

CHAPTER 1 INTRODUCTION

ABSTRACT

This study sought to find out the impact of Sanitary and Phytosanitary requirements on the export trade of small scale horticulture growers in Kenya. The need of this study arose from the fact that horticulture is an integral part of the economy of this country. Food safety has become a major economic issue in public policy. This important sector is dominated by small scale farmers whose activities are being threatened by stringent measures coming from the importers.

The study was guided by three objectives. First to establish the challenges small scale horticulture growers encounter as a result of Sanitary and Phytosanitary requirements, Secondly to determine the impact of Sanitary and Phytosanitary on the business of small scale horticultural growers in Kenya and finally to find out how the small scale horticulture growers are responding to the challenges.

Primary data was collected using a semi-structured questionnaire with close ended and open ended questions. These were administered to 30 export small scale horticulture growers. Data was collected then analysed using descriptive statistics through the use of means, percentages, frequencies and content analysis. The analysis revealed effects of Sanitary and Phytosanitary requirements as increased production costs resulting to reduced profit margins. It also revealed the various challenges the export small scale farmers are exposed to are mainly lack of credit facilities to finance their operations in complying with the requirements highlighted as the most important. With all the challenges the farmers are still willing to continue growing for export and therefore they are seeking for assistance from the buying companies in achieving compliancy instead of doing it as an individual.

CHAPTER ONE: INTRODUCTION

1.1 Background

Horticulture is one of the most important sub sectors in Kenya. It acts as a source of food, generates income, and provides employment, source of income for the manufacturing industries, agrochemical industries and many others. The horticultural sub sector also provides input for the processing industries (Murage, 1999; Ndung'u 1999; Kamau, 2001). Kenyan horticultural sub sector has grown tremendously over the last 3 decades and has potential to grow into an important wealth creation enterprise due to its labour intensive nature and high value (Thimm, 1998). Horticultural Crop Development Authority (2004) points out that Kenya has a long tradition of growing horticultural crops for both domestic and export markets. Success to date can be attributed to Kenyan's ability to provide high quality produce on a year-round basis, backed by daily airfreight departures to key destinations. The country is able, from its agro-ecological zones to grow a wide range of horticultural products

To succeed in the horticulture export markets all growers must now meet the Sanitary and Phytosanitary (SPS) requirements. These have become a major constraint for small scale horticulture growers in Kenya due to the cost required for compliance, lack of technology and expertise needed. The SPS requirements have therefore emerged as barriers to trade and yet cannot be ignored because the consumers are becoming more sensitive to quality of exported commodities.

1.1.1 Export Trading

The unmistakable fact is that export trading is becoming increasingly important as companies in all parts of the world step up efforts to supply and service markets

located outside their national boundaries. Export trading is the first stage of addressing market opportunities outside the home country. Exporting is the most traditional and well established form of operating internationally.

Exporting maybe done as direct exporting i.e. sales between the producer and second distributor or customer that functions as the importer. Export trading may also be indirect exporting whereby the sales go through an intermediary located in the home country. The indirect exporters however pay a price for such services in form of a commission to the exporters. Foreign business can be lost if exporters decide to change their sources of supply and producers gain little experience from these exporters (Ball, 1993). The small scale growers in Kenya will mainly rely on indirect exporting.

Export trading begins with an intensive market study leading to the development of a marketing strategy. The hallmarks of these strategy maybe products adapted to customer needs and preferences in the market, price, distribution and communication policies that are an integrated part of the market strategy (Keegan, 1995). The Kenyan small scale growers will leave this strategy to the exporters to develop.

1.1.2 Sanitary and Phytosanitary Requirements

The SPS Agreement applies to all sanitary and phytosanitary measures which may, directly or indirectly, affect export trade. Sanitary measures deal with human or animal health, and phytosanitary measures are related to plant health.

SPS is therefore any measures applied to protect animal or plant life or health arising from the entry, established or spread of pests, diseases, disease-causing or disease carrying organisms. The definition continues to say that it is any measure applied to protect human or animal health from risks of additives, toxins, contaminants or disease causing organisms in food, beverages or feedstuffs (USAID report, 2004)

The evolution of SPS measures is traceable to GATT rules, especially Article XX(b) which allows countries to introduce measures to protect human, animal or plant life or health.(Oyejide et al., 2004). With the conclusion of the Uruguay Round of trade talks in 1994 and creation of WTO, food and agriculture was brought fully in the fold of international trading rules. Such measures designed to ensure food safety, consumer protection and plant and animal health are regulated by two agreements annexed to two trade accords, Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade Agreements (TBT). Considerable debate has ensued concerning the extent to which the new trading environment for agriculture has been favourable or not to developing countries, given the apparent rise in use of SPS requirements and strengthening measures in the food and agriculture sector by some leading exporters.

The SPS International standard setting organizations are Codex Alimentarius Commission (for human health), International Plant Protection Convention-IPPC (plant health), and Organization Mondiale de la Sante Animale -OIE (animal health). National Plant Protection Organization is the implementing organization with the following responsibilities: Issuance of Phytosanitary certificate, Pest surveillance, Inspection of Plant and Plant Products, Treatment of Plants and Plant Products,

Establishment of Pest free area, Pest risk analysis, Safeguarding consignments after certification, Training and Development of staff.

It has been recognized that meeting international standards may be a burden to cash stripped, resource short parts of the world. So under the agreements, countries also agree to facilitate the provision of technical assistance to developing countries to help them meet the standards. The greatest problem is that importing countries often impose SPS requirements that are stricter than the international norm (Gujadhur, 2002).

Requirements of importers of horticultural produce, mainly the European markets, such as product consistency, quality and compliance with health and plant safety requirements pose serious problems for exporters wishing to source from the small scale growers (Thoen et al., 1999). The overseas markets insist that fresh horticultural exporters readjust their regulations on pesticide maximum residue limits (MRL's) to analytical zero. Implications are that there will be no tolerance of the residue on produce. Such requirements could lead to a ban of most of the fresh produce from Kenyan small scale growers if action is not taken.

1.1.3 Small Scale Horticulture Growers

Small scale horticulture growers produce more than half the exports (HCDA, 2001). According to Ndung'u (1999), small scale businesses are characterized by easy entry and exit, low capital requirements for establishment and operation, dependence on local resources, employment of simple technologies that are easy to adopt, labour intensive production techniques, low cost skill acquisition mainly from outside the formal school system and the ability to operate under highly competitive market

conditions. Mumo (2001) describes small businesses as those firms that have management independence, usually need a small business firm capital, ownership is by an individual or a small group of individuals and their operation is mainly local though markets need not be local.

Small scale farmers growing for the export market often encounter rejection of produce due to poor quality, non compliance of Sanitary and Phytosanitary requirements, erratic prices due to overproduction and under production (Gathura, 2003). According to McCulloch and Ota (2003), in terms of farm sizes, they range from large scale estates with substantial investments in irrigation and high level use of inputs, hired labour and skilled management to small scale farmers, usually growing on under one acre of land. This could be as small as 1/10th of an acre in Kathiani (Machakos District). In Kirinyanga district, they lie between ½ acre to 3 acres.

With majority of Kenyans living in the rural areas, agricultural remains the backbone of the economy (Thimm, 1998). Small scale farmers provide the bulk of the fastest growing sector yet these farmers lack adequate experience and knowledge to operate on an even footing in the market place. They do not have the capacity to meet requirements hence the need for awareness, capital and training. They also lack a unifying forum to discuss their activities.

According to Fresh Produce Exporters Association of Kenya -FPEAK (2004), for Kenyan horticultural produce to sustain and improve it's markets share internationally the sector has to demonstrate and maintain high standards of production, processing,

packaging and handling to meet market quality requirements set by the European Union.

1.2 The Research Problem

Small scale horticulture farmers growing for the export market often encounter rejection of produce due to poor quality, non compliance of Sanitary and Phytosanitary requirements, erratic prices due to over and under production (Gathura, 2003). The knowledge of SPS requirements issues both within the relevant governments and in the horticulture supply chain is, with few exceptions limited. Education and training will have to be undertaken to familiarize relevant ministries and producers. While Kenya supports the overall objective of Sanitary and Phytosanitary measures and recognizes the long term benefits, there is concern about the compliance cost. The cost of implementing the new measures will lead to increased costs for the exporters. International Trade forum, (2002), compliance is becoming a 'moving target' as the requirements become more stringent and yet compliance doesn't result in premium price, implying a financial risk.

A report made by HCDA in year 2004 shows that in the year 2002, the value of the horticultural export was 28.33 bn. In the year 2003 it generated over Ksh 70 bn of which 36.49 bn was in foreign exchange and was the leading foreign exchange earner.

Yet scholars have not given much attention on the issue of sanitary and phytosanitary requirements which have been a hindrance to the realization of small scale horticulture growers export potential.

Scholars interested in the horticulture industry have focused on operations strategy practises of small scale export market farmers in Kenya (Mbugua, 2005), horticulture

marketing problems in Kenya (Kimani, 1998), production of horticulture crops in Kenya (Nyoro, 1993), exporting Kenya's horticulture products (Kodhek, 1993), services offered by small scale exporters in Kenya (Mumo, 2001). None of the studies has focused on the small scale horticulture growers with Sanitary and Phytosanitary requirements. This study seeks to bridge this knowledge gap.

The research questions being addressed are, What challenges do the small scale horticulture growers encounter as a result of Sanitary and Phytosanitary requirements? How are the small scale horticulture growers responding to the challenges? And what is the impact of Sanitary and Phytosanitary on the business of small scale horticultural growers?

1.3 The Research Objectives

The objective of this study is:

- i) To establish the challenges small scale horticulture growers encounter as a result of Sanitary and Phytosanitary requirements.
- ii) To determine impact of Sanitary and Phytosanitary on the business of small scale horticultural growers in Kenya.
- iii) To find out how the small scale horticulture growers are responding to the challenges

1.4 Importance of the Study

The findings may be used by small scale horticulture farmers providing for export to adopt ways of coping with the stringent measures, implement and monitor them for competitiveness at present and in future. The paper could also provide an insight to the buyers who outsource their products from small scale farmers, potential business

men and women who want to join the horticulture export business and NGOs working with the growers. The government policy makers may understand the need to be more involved in the negotiations that have an impact on export business. Finally donor agencies like USAID may see the need to speed up their assistance in the horticulture industry.

2.3 Export Trade

Export trade is the first stage of addressing market opportunities outside the home country. The export marketer targets markets outside the home country and relies upon home country production to supply production for these markets (Keegan, 1995). Most countries are not self sufficient and are economically interdependent on one another. Export trade simply arises because countries differ in their demand for goods and services and in their ability to supply them.

Trade occurs due to the arbitrage of products from countries where prices are low to places where prices are high. Other reasons include income transfers from one country to another, advantages arising from geographic location and natural resources of some countries, acquired advantages due to education, culture and geographic positions, growth in the world population and per capita income and advancement in the level of technology and technical process which introduces new processes and new products from time to time and regional integration among other reasons (Sikoyo, 2004).

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

There is an emerging trend with respect to non-traditional African food trade which deserves analytical and policy attention (Oyejidi et.al, 2000). There is an increasing reliance by developing countries on the export of food products in the context of the growing importance of global trade in processed food products (Athukorala et.al, 1998; Hooker, 1999). Consuming countries require domestically produced and imported goods should satisfy certain minimum levels of quality, health and safety standards thus necessitating SPS measures.

2.2 Export Trade

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Keegan, 1995 points out that the post World War II world trading system was constructed out of a common desire to avoid a return to the restrictive and discriminatory trading practises of the 1920s and the 1930s. There was a commitment to the creation of a liberal world in which the world would be a free flow of goods and services between countries. The system that evolved out of this commitment included General Agreement on Tariffs and Trade (GATT) which provided an institutional framework and set of rules and principles for efforts to liberalize trade. The most favoured nation (MFN) principle, whereby each country agrees to extend to all countries the most favourable terms that it negotiates. One of the complications of the world trading system is that governments tend to encourage and support exporters with subsidies and assistance of various kinds. This leads to efforts by target market countries to protect their own industries from “unfair competition”.

According to Keegan, it is hard to overstate the importance of exporting to economies around the world. In the US alone, exports of goods and services reached \$640 billion in 1992. The department of commerce reported that export shares of total US GDP grew from 7.5% in 1986 to 10.6% in 1992. This increase represents 42.7% of real GDP growth during that seven-year period. Between 1986 and 1990, US employment increased by 900,000 in manufacturing companies engaged in merchandise exports.

The fastest growing countries in the world have all relied upon an export trade strategy encouraged by the governments'. Consider Japan, Singapore, Korea and the so-called “greater China” which includes Taiwan, Hong Kong and the Peoples Republic of China. In the last four decades, Japan totally recovered from the destruction of World War II and became an economic superpower as a direct result of

MITI's export lead strategy. The "four tigers" Singapore, Taiwan, Korea and Hong Kong built upon the Japanese experience and all have export based economies. The greater China booming with 10% growth has attracted foreign investments of companies like Daimler Chrysler and Hewlett Packard setting up production facilities for supply of China markets and export to world markets.

There are 3 commonly used government activities designed to support export trade activities of national firms. Tax incentives by applying a lower rate of earnings from their activities or refund of taxes paid on income associated with exporting. Subsidies are also used to reward export performance and the third support area is government assistance to exporters. It may take the form of providing information concerning location of markets and credit risks, promotion oriented, including assistance in the establishment of trade fairs and trade missions designed to promote sales to foreign customers. (World Bank, 1999)

Fig 1: Leading Exporters in the world in merchandise

Rank	Country	Value bn US\$	Share %	Annual % change
1.	Germany	912.3	10.0	21
2.	USA	818.8	8.9	13
3	China	593.3	6.5	35
4	Japan	565.8	6.2	20
5	France	448.7	4.9	14
6	Netherlands	358.2	3.9	21
7	Italy	349.2	3.8	17
8	United Kingdom	346.9	3.8	13
9.	Canada	316.5	3.5	16
10.	Belgium	306.5	3.3	20

Source: WTO, 2004

2.2.1 The Theory of International trade

It is difficult to talk about export trade without mentioning international business which today differs vastly from what it was before World War II, a time considered a turning point by many. Sornarajal (1994), said although international firms existed well before that time, it was not until the 1950s that international business began its explosive growth. However, with this growth arose issues such as globalization, international trade, tariffs, sanctions, and exchange rates. The history of International trade is as old as civilization. Before the time of Christ, Phoenician and Greek merchants were sending their representatives abroad to sell their goods. The oldest trade recorded dates back in 2250 in Babylon when King Hammurabi issued a series of laws governing business dealings and personal behavior as well as wages and punishments.

International trade theories not only attempt to address the question of why nations go international, but also attempt to predict the direction, composition and volume of goods to be traded. Although none of the theories provide a complete explanation of the phenomena of international trade, the key issues raised by the theories constitute the foundation of international trade (Ball and McCulloch, 1993).

According to Ball and McCulloch development of the law of comparative cost must be singled out as one of the greatest achievements of the classical school of economic thought. All countries of the world can benefit from International specialization and free trade. This doctrine shows that any interference to free trade is harmful to the welfare of the world.

The mercantilists advocated a national policy of protectionism. They encouraged exports (by means of subsidies) and discouraged imports by means of tariffs. They were motivated by their self interest. Adam Smith (1937) proposed that the mercantilist failed to draw a distinction between wealth and treasure. The issue of balance of trade surplus then arises.

Adam Smith (1937) emphasized the importance of free trade in increasing the wealth of all trading nations. According to Adam Smith mutually beneficial trade is based on the principle of absolute advantage. A country may be more efficient in the production of some commodities and less efficient in the production of other commodities relative to another nation. Irrespective of the cause of the difference in efficiency, both countries can benefit if each specializes in the production of what it can do more efficiently than the country. For instance US are more efficient than Brazil in the production of computers, whereas Brazil is more efficient than US in production of coffee. The US should specialize in computers and Brazil in coffee. The US can export to Brazil its surplus in exchange for Brazil's surplus production of coffee and herein lies the essence of the gains of trade, as championed by laissez-faire (absence of government interference).

What is the fundamental reason for existence of the gains of export trade? "Absolute advantage" as would respond Adam Smith. Even today many people fall into the trap of believing that exporters must have an absolute advantage over their foreign rivals. Every country must be able to produce something. Otherwise how will a non productive nation pay for its imports? The truth is that absolute advantage can only explain a portion of world trade.

David Ricardo (1821) demonstrated that mutually beneficial trade is possible when only comparative advantage exists. David Ricardo an economist demonstrated that trade among nations resulted from differences in the comparative advantage of the countries in the production of various items and not differences in absolute advantage. He alleged that a nation having absolute disadvantage in the production of two goods with respect to another nation has a comparative or relative advantage in the production of the goods in which its absolute advantage is less.

David Ricardo's development of comparative advantage has remained unchallenged for almost 2 centuries. It finds many practical applications outside the domain of International economics. Comparative advantage as opposed to absolute advantage is a relative term. Ricardo however assumed that the cost of producing any good depended only on the amount of labour used in its production and that firms workers could not move freely between nations (a reasonable explanation for the 1800s), (Ball and McCulloch 1993).

According to Ball and McCulloch (1993), other theories followed the three, which included Hecksher-Ohlin's theory of Factor Endowment. The theory states that international and interregional differences in production costs occur because of differences in the supply of production factors. Hecksher- Ohlin theory however ignored transportation costs, freight costs, differences in tastes and the influence of exchange rate.

According to (Ballmode, 1993), there have been a number of attempts to research the Leontiff disputed the usefulness of Hecksher- Ohlin's theory as a predictor of the export division process since the study undertaken by Johanson and Wiedersheim-Paul (1973). based on empirical research of 100 actual exporters, their findings

intensive countries in the world was exporting labour intensive products. Then came the International Product Life Cycle. It concerns that role of innovation in trade patterns and explains why a product that begins in a nation as export eventually becomes its import. The theory is based on the concept of the product life cycle, which states that every product passes through four stages in its development namely introduction, growth, maturity and decline.

Stefan Linder a Swedish economist recognized that although the supply oriented Hecksher – Ohlin theory which depended on factor endowments was adequate to explain international trade in primary products, another explanation was needed for trade in manufactured goods. Because industry will produce goods to meet demand, the kinds of products manufactured reflect the country's per capita level. Goods produced for domestic production will eventually be exported.

Michael Potter while observing that traditional theories have failed to explain why certain countries have succeeded in the post second world war era put forward a fresh hypothesis concerning the basic determinants of the national competitive advantages that lead to international trade. Porter's analysis claims that the following four variables; demand conditions, factor conditions, related and supporting industries, firm strategy structure and rivalry will have an impact on the ability to gain competitive advantage.

2.2.2 Export Development Models

According to (Palliwoda, 1993), there have been a number of attempts to research the export division process since the study undertaken by Johanson and Wiedersheim Paul (1975). Based on empirical research of four actual exporters, their findings

pointed to a gradual process in stages rather than large spectacular investments. The four export models brought out are, No regular export, export via overseas agents, establishment of an overseas subsidiary, and overseas manufacturing.

A further study by Bilkey and Tesar (1977) among Wisconsin exporters identified six stages. Bilkey reviewed 43 studies on the export behavior of firms and reached 3 major conclusions. The first is that exporting is essentially a developmental process. The second conclusion is that the probability of a firm going from one stage to the next depended on different factors like the management's attitude towards the attractiveness of exporting and its confidence in the firm's ability to compete internationally. Finally commitment is the most important aspect of the firm's international orientation. The importance of the models is that determinants of export behavior and policies adapted may differ significantly between the different stages of internationalization as noted by various researchers.

2.3 Factors Affecting Export Trade

Free trade and free markets are essentially about making trade easier by allowing the market to balance needs, supply and demand. Within a nation, it can be a positive engine for development. Gordon (1993), with the cold war over, politicians, economists and others have been promoting unfettered free trade and free market ideology. Export-oriented agriculture gives rise to a new set of challenges because foreign food safety and agricultural health requirements may differ sharply from domestic requirements, especially in the case of low-income countries (Dong and Jensen 2004).

According to Gordon (1993) tariffs or duties are charges assessed by the country of import on the value of goods entering the country. Every country establishes its own rates of duty, subject to multilateral, bilateral or other agreements it has entered. Most duties are haphazard, levied as a percentage of the value of the shipment. Some countries charge duty on the CIF value of the shipment, others on the FOB value at the port of export. This is an important distinction. It is not uncommon for importers to ask that invoices show the cost of the goods, the freight and the insurance separately even though the quote is in CIF or CIP to the destination.

There can also be non tariff barriers which apply to the goods on entry into the target country. They can be more complex and insidious than tariffs. They may be applied unexpectedly. They may also cause delay, raise costs or prices, limit market access or force product modifications.

Traditionally trade was regulated through bilateral treaties between two nations. Free trade is usually supported by the most economically powerful nations in the world, though they engage in selective protectionism for those industries which are politically important domestically such as the protective tariffs applied to agriculture and textiles by the US and Europe. The Netherlands and UK were both strong advocates of free trade when they were economically dominant, today the US, UK and Japan are the greatest proponents. As tariff levels fall there is increasing willingness to negotiate non-tariff measures, including foreign direct investment, procurement and trade facilitation.

In an OECD report, (2001) it was noted that during recessions there is often strong domestic pressure to increase tariffs to protect domestic industries. This occurred during the Great Depression which ran from 1929 to the late 1930s leading to a collapse in world trade. In 1944, 44 countries signed the Breton Woods agreement to prevent national trade barriers. It set up rules and institutions to regulate international political economy. The IMF and International Bank for reconstruction and Development become operational in 1946. In 1947, 23 countries agreed to GATT to promote free trade.

2.3.1 Impact of Trade Agreements on Export

The OECD (1999) survey collected data from 55 firms on the costs of compliance with technical requirements in export markets, supplied some information on the to trade around the world. Talks have been hung over a divide between the rich, developed countries and the major developing countries (represented by G20). Agriculture subsidies are the most significant issues upon which agreement has been hardest to negotiate. The Doha round began in Doha, Qatar and subsequent negotiations continued in Cancun, Mexico; Geneva, Switzerland; Paris, France and Hong Kong. The aim is to deliver a new global deal on free trade by 2006. Yet the Doha round of talks which first started in 2001 have already missed one deadline, mainly due to the ongoing inability of the US and Europe to reach agreement over agriculture.

Tariffs on all agriculture products are now bound. Almost all import restrictions that did not take the form of tariffs such as quotas, have been converted to tariffs. A process known as tariffication. Previously 30% of agriculture product faced quotas or import restrictions.

One factor responsible for the limited competitiveness of certain products is the still soaring US-Dollar. As the EURO lost 25% of its value in relation to the US-Dollar in less than two years, this creates problems especially for some of the smaller companies. The loss in value of the EURO may easily erase the profit margin if no sophisticated procedures to protect against currency exchange rate losses are in place. Exporters to Japan also report a strong influence of the exchange rate between the Dollar and the Yen in the last five years.

2.3.1 Impact of Trade Agreements on Export

The OECD (1999) survey collected data from 55 firms on the costs of compliance with technical requirements in export markets, supplied some information on the estimated percentage increase in production costs incurred as a result of physically adapting products to meet technical specifications. Standards can be a means of hidden protection. Even if standards are not protectionist in intent, badly designed and applied standards can have highly discriminatory consequences for trade partners. In a world of reduced tariff protection and multilateral trade rules that limit the ability of governments arbitrarily to increase taxes and quantitative restrictions on trade, it is not surprising that they are sometimes tempted to use other means to restrict imports.

Of late the European consumer as a result of several food scares has increasingly posed questions on the production process and demand open, honest, informative labelling of products. This has resulted in the EU imposing a Traceability requirement for all fresh produce entering the EU from January 2005. All exporters have to establish a Traceability system to track agronomic history from 'farm to fork'. (Sikoyo, 2004).

The other European regulation on Fruits and Vegetables is MRLs. If fresh produce is found to have pesticide residues exceeding the established MRL, the importer who brings the product is held liable and severely punished. So the European importers prefer dealing with suppliers who can demonstrate MRL compliance.

For those exporters supplying to supermarkets they must source their produce from EUREPGAP accredited producers. This encompasses Traceability and MRLs among other requirements. The main theme includes food safety, environmentally friendly growing, health and safety and welfare of workers and record keeping. According to Sikoyo (2004) it will soon become a requirement for all vegetable produce imported into the EU to be accompanied by a Quality Control certificate from an approved source. There is also a new requirement that flowers entering the EU must be inspected at point of entry for quality and pests at exporter's expense.

The growth in trade that results from lowered trade barriers is generally beneficial regardless of its effects on the balance of trade (the difference between the values of exports and imports). Some people believe that trade agreements are beneficial to the extent that they increase exports and harmful to the extent that they increase imports and thus that the benefit or harm of an agreement can be determined from its effect on the trade balance.

The analysis of Free Trade Agreements (FTA) is a little more complicated than that of multilateral trade liberalization. The rules of the WTO stipulate that, except in relation to free-trade areas, countries may not impose a higher tariff against one member country than against another and any reduction in a country's trade barriers must apply

equally to imports from all other member countries. In the case of an FTA, however, the reductions in trade barriers increase the competitiveness of imports from the other parties to the agreement not only relative to domestic production but also relative to imports from other countries. The distinction between trade creation and trade diversion is important because the former is more likely than the latter to produce a net economic benefit.

Some critics worry that FTAs might divert the world away from multilateral trade liberalization and lead to the development of large, competing trading blocs--the United States and the Western Hemisphere, the EU and nearby countries, and Japan and its trading partners in Asia and the Pacific Rim--a result that would be inferior to multilateral free trade.

At the conceptual level, an attempt to quantify trade effects of SPS measures may begin from the analysis and estimation of the firm -specific costs of modifying a product to satisfy the requirements of a specific regulation or standard, the cost of the testing and certification procedures, as well as the cost imposed by non compliance with a standard which then influences consumer purchasing decisions (Henson and Heasman, 1998; Baldwin 1999). Broadly therefore an attempt to determine how SPS measures affect trade flows maybe through an analysis of difference in the cost compliance (Oyejide et.al, 2000).

More specifically, the cost of SPS measures would include the cost of the producers' cost of compliance and administrative and technical costs incurred by the (usually public) agencies charged with the responsibilities for the testing and certification of

the established standards as well as the enforcement and monitoring of compliance by the producers(Oyejide et al. 2000). Hooker and Caswell(1999) offers an analytical framework for the quantification of the trade impact of SPS measures by focusing on differences in compliance cost that domestic and foreign firms experience in the process of meeting the requirements of such regulatory standards.

It can be argued that small firms could experience disproportionately larger costs of compliance due to lack of economies of scale arising from in-house quality control facilities or in bulk rates from outside testing facilities (Loader and Hobbs, 1999). Empirical support for this proposition comes from Henson and Heasman (1998) which finds that unit compliance costs are negatively related to firm size (implying some economies of scale and that “large firms” are generally more able to comply with regulations in a manner which yields competitive advantage than small firms.

2.3.2 GATT (1994) and WTO

From a synopsis of 4th WTO ministerial conference (2001), WTO GATT 1994 contains 38 articles and has a long history of jurisprudence behind it. So there is some degree of simplification involved when only three articles – Article III (National Treatment on Internal Taxation and Regulation), Article XI (General Elimination of Quantitative Restrictions) and Article XX (General Exceptions) are specifically discussed here. Article III is one of the most important provisions of GATT 1994 and obliges WTO Members not to apply internal taxes or regulations to imported products so as to afford protection to domestic production. Thus, a WTO Member must accord treatment that is no less favourable to imported products than to like domestically produced products. An important link with the obligations is in the TBT and SPS

Agreements come from the requirements that technical regulations and SPS measures should not be used as means of protection to domestic industry. GATT Article XI requires a WTO Member not to impose prohibitions or restrictions other than duties, taxes or other charges on the imports of any other Member.

The WTO replaced GATT as an international organization, but the General Agreement still exists as WTO's umbrella treaty for trade in goods, updated as a result of the Uruguay Round negotiations. Trade lawyers distinguish between GATT 1994, the updated parts of GATT and GATT 1947, the original agreement which is still the heart of GATT 1994. (WTO report, 2004)

Finally, GATT Article XX allows a WTO Member to adopt or enforce measures intended to secure a range of policy objectives – including those necessary to protect human, animal or plant life or health or relating to the conservation of exhaustible natural resources – provided that the measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade. Some of the policy objectives cited in Article XX are identical to those cited in both the TBT and SPS Agreements, and Members could use Article XX to provide cover for their TBT actions.

(ITC, 2002) GATT seeks to achieve a reduction of tariffs world wide through multilateral conferences (most recent Uruguay Round) a mutual guarantee of most favoured nations, tariffs, elimination of quantitative restrictions (quotas) freedom of transit, simplification of custom procedures and prevention of dumping.

Under GATT nations are encouraged to provide preferential tariffs treatment to less developed and developing countries and a common standard of tariffs among members. GATT signatories have agreed to use transactions value as defined by GATT as the basis of custom valuation. The objective is to produce a fair, uniform and neutral system for the valuation of goods. (ITC, 2004)

2.4. Export of Agriculture Products

Davis(2004).The expansion of global trade in perishable agricultural products and high-value foods has high-lighted the great divergence in national standards for food safety and animal and plant health and in the capacities of public authorities and commercial supply chains to manage the risks associated with trade in these products. For many higher-value foods, including fruits and vegetables, fish, beef, poultry, and herbs and spices, the challenges of international competitiveness have moved well beyond price and basic quality to food safety and agricultural health concerns.

Export-oriented agriculture gives rise to a new set of challenges because foreign food safety and agricultural health requirements may differ sharply from domestic requirements, especially in the case of low-income countries (Dong and Jensen 2004). Thus the intrinsic risks associated with the production, transformation, and sale of high value and perishable food products, combined with different standards and institutional capabilities, can pose major challenges for agriculture export trade. New standards are being applied to address previously unknown or unregulated hazards, such as BSE, genetically modified organisms, and environmental contaminants.

The Agriculture Agreement launched in 2000 allows governments to support their rural economies, preferably through policies that cause less distortion to trade.

Developing countries do not have to cut their subsidies or lower tariffs as much as developed countries, and they are given extra time to complete their obligations. (WTO report, 2004) The Agreement on the Application of SPS measures provided a set of multilateral rules recognizing the need of countries to adopt such measures and creating a framework to reduce their trade distorting effects. The agreement, built on the Standards Code of the 1947 GATT, permitted measures “necessary to protect human, animal, or plant life and health,” yet required that regulators base measures on a scientific risk assessment, recognize that different measures can achieve equivalent safety outcomes, and allow imports from particular regions in an exporting country when presented with evidence of the absence or low incidence of pests or diseases.

According to Foss (2004), agriculture and to some extent, fisheries are by far the most important economic sectors in all sub-Saharan Africa. The sector often accounts for 30-40% of GDP, 60-80% of the work force and have by far the greatest potential growth in the export markets. The sector accounts for up to 90% of the exports from some countries. Overall agriculture products account for 35-40% of the exports.

There is a great potential for increasing exports. Many countries have favorable climate and other natural conditions. Modern production methods will increase the harvest substantially. Most of the countries grow a variety of crops with great export potential. Such products are fruit, vegetables, including spices, maize, wheat, tobacco and flowers. Vegetable protein as an ingredient in animal feed has great potential.

Many countries have also a great potential for increasing livestock production and thus for becoming major beef exporters. Fish and fish products are other commodities

with a great potential for an increase in product and export. Fish from Lake Victoria and prawns from Mozambique are good examples, and these products account for an important share of the current exports.

Most of the exports are at present unprocessed and exported as raw materials. (Davis, 2004) Many countries have a clear policy for developing value-adding industries, which in practice would mean agro-industries, freezing plants, export terminals for sorting, packaging, labeling and others. This trend is still at an early stage.

Process quality is also low reflected in low productivity, high scrap rates in the industry and post harvest losses in agriculture. Processes are also slow, resulting in unreliable deliveries and long delivery times. Post harvest losses amount to 30-50% of the total crops. Agriculture productivity can be increased significantly with better pest management and improved farm to market logistics.

Due to the problem of poor understanding of current international requirements which include product safety requirements in target markets, based on WTO/TBT and SPS requirement, World Bank has published a report that claims that “by participating in international standards, and implementing acceptable international rules, it is estimated that Africa could gain upto 1 billion USD a year from high exports of nuts, dried fruits and other agriculture commodities” (Foss, 2004).

To take agriculture a step further the export farmers who are small holder must develop export projects in cooperatives, export associations and others. One such concept is the Private Sector Exporting Company. This model is proposed in

Tanzania, based on favorable experience from Canada, Israel, the Philippines and India (Ministry of Industry and Trade, 2002). The organization for horticulture exports from Kenya follows similar models.

Horticultural products from Kenya began in 1930s when passion fruit juice was exported to Europe. The first air freighted export of fresh horticulture produce occurred in 1950s when high value fresh produce was exported to the UK. Since then export of fresh produce has expanded to other countries.

Horticulture has played a major role in expanding the export base, providing employment, packaging, transporting and exporting as well as providing income to many rural families. According to Karuga, (2004) principle agriculture exports from Kenya are horticulture, coffee, tea, sugar and livestock. The European community is the main destination for Kenya's fresh produce. The UK imports 36% of total Kenya's export volume, 16% of produce destined for Netherlands and 13% for Germany (Kimani, 1998).

Fruits and vegetables for export are produced by mainly small scale farmers who contribute 80% of all produce (HCDA, 1997). Horticulture production requires subsistence working capital for the purchase of intermediate inputs and labour.

Europe, particularly the EU member states, is the single most important destination for Kenya's Horticulture exports accounting for 95% of total value of exports in 2003. Europe is particularly an important market destination for flowers and vegetables exports from Kenya in both cases accounting for 98% of total export value. Fruit exports are slightly less concentrated to EU having accounted for 81% in 2003 and

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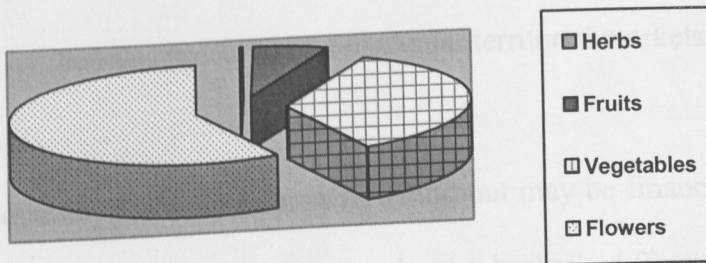
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Asia taking up approximately 18%. Main horticulture sub-sector is categorized into four sub-group comprising fruits, vegetables, cut flowers and herbs/spices (Karuga, 2004)

Fig 2: Share in export value (source; statistics from HCDA/MOA, 2003)



2.5 Exporting and the Small Scale Farmers

Defining what is meant by a small business across various countries is a different task. The Bolton report (1971), which drew attention to the decline of small business in the UK, defining a small firm in the manufacture sector as one employing 200 or less people but this is only a factor for the UK. For a more general defining it is important to look elsewhere to pinpoint the essential characteristics which may be bearing on the firm's ability to export.

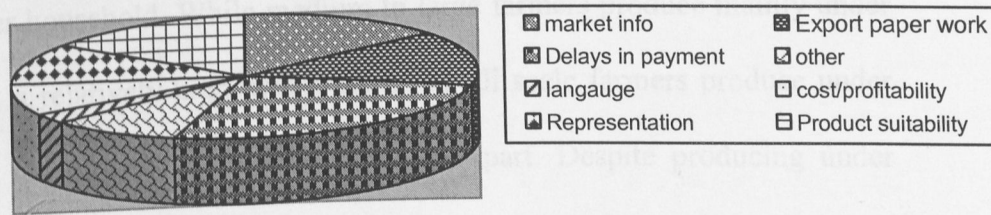
The small firm has only a small share of the market, it's managed in a personalized way by its owners or part owners and does not have an elaborate management structure, and it's not sufficiently large to have access to the capital market for the public issue or placing of securities. Once a firm outgrows any of these it ceases to be a small business. These businesses have problems in exporting due to lack of scale, inexperience and inability to finance new investments in new markets.

According to Camon & Willis (1986) small business exporters have varied problems which include, a relatively large domestic market and lack of exposure to other cultures, the lack of management time and general resources, reaching the foreign markets, selecting and motivating 'arms length' commission agents, the interest of

principle and agent may often differ and small businesses because of their size may be more exposed to the varying degrees of political, economic and financial risk made uncertain by the indifference attitude of a foreign agent, paperwork and management of export operations, cost of supervisory salesman, cost of overseas offices may not be justified by the sales potential of a particular territorial markets.

Going it alone retains independence of action but may be financially ruinous having the same effects of 'placing your eggs in one basket', different safety and quality standards overseas may involve a small company in expensive modification to achieve compatibility. This adds to 'upfront' costs before a single product is sold.

Fig 3: Greatest difficulty in small scale exporters (Source; Cammon & Willis, 1986)



(Monk,1989) points out that there is no cross-border success or failure rate for any industry, that no country has exclusively the know how that puts all it's industries one step ahead of the competition, and the success-and-lesser success occurs in all industries and across all markets. Nevertheless Monks cites the criteria of success as geographical expansion of operations, degree of identification with the local market/country, sales growth per market, profit growth, quality (reputation) and long term commitment.

But in another study Kirpalani and Mackintosh (1980) took a different view, pointing out that the inputs which determine market effectiveness of the small business could be different from those that apply to the large multinational corporations (MNC).

Stating that factors which may contribute to success, but including also a few rather general thoughts, it is noted that Government assistance does not act as a motivator although its absence would be regretted, top management effort and backing are required, pricing & promotion are important, having one or two products is more successful and mature products, if modified for exports and compete successfully. This has been conceptualized in a model of small firm export sales. More small scale farmers could be attracted into exporting by improving the trade environment and simplifying trade operations (Christensen et al, 1987).

Karuga (2004), of the estimated 250,000 Horticultural export farmers in Kenya, approximately 200,000 (or 80%) are small scale farmers who cultivate less than one hectare of land per household. While medium to large farmers produce mainly under irrigated systems, a relatively high proportion of small scale farmers produce under rain fed systems resulting in vulnerability on their part. Despite producing under much more difficult circumstances, these small holder farmers produce over 95% of total national production. Their contributions have been declining over the last 5 years mainly due to the emerging stringent conditions on traceability and MRLs introduced by the EU markets, in 2004 they still accounted for 55% of total export volume for fruits having declined from 60% in 2001.

3.3 Sample Design

Rasch in 1975 proposed a rule of the thumb, a sample size ranging from 30 to 500 is appropriate for most researchers (Copper and Schindler, 1998). The survey sample consisted of 30 small scale farmers growing export horticulture crops. These farmers were chosen by judgmental method from a list of farmers compiled from PPEAK. This method was used so as to pick farmers who the researcher could easily communicate with while administering the questionnaires, which were written in

3.1 Research Design

This was a survey study of small scale farmers who export their horticulture produce to various countries in Europe. This particular research design study was selected because it captures the real scenario of the small scale export horticulture growers who are scattered in vast areas and represent 80% (HCDA, 2000) of the export horticulture farmers. This design was most relevant because the small scale horticulture farmers lack proper organization and also lack the muscle/capacity to deal with issues that hinder compliance to Sanitary and Phytosanitary as compared to the large scale horticulture exporters who thrive in economics of scale in production. Therefore a case study would have been an inappropriate method.

3.2 Population of Study

The population of the study consisted of all individual small scale farmers growing export horticulture crops in Kenya. From the MOA horticulture reports and HCDA news Jan/Feb 2000, there is an estimated 250,000 horticulture farmers, approximately 200,000 (or 80%) are small-scale farmers who commonly cultivate less than one hectare of land per household.

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English. The 30 farmers were picked from Eastern province due to proximity and accessibility and practice similar growing habits as other small scale farmers in the other Provinces.

3.4 Data Collection Method

The research drew its data from primary data by way of semi-structured questionnaire. The questionnaire was divided into two parts (see Appendix 2). Part I involved gathering information on the respondents profile while Part II collected information on SPS impacts, challenges and what the farmers are doing to overcome the challenges.

Personal interviews were done to guide the respondents through the questions and also to clarify questions that may not be clear to the respondent.

3.5 Data Analysis

This is a descriptive study. The researcher will use content analysis for qualitative data and descriptive statistics for the quantitative and statistical data. Therefore data will be analyzed using frequencies, percentage, means and scores. Data will then be presented in the form of tables and charts.

Male	23	76.7
Female	7	23.3
Total	30	100.0

Annual turnover less than Kshs 150,000 and Kshs 151,000 - 300,000 was the same, 36.7% while the rest 26.7% are earning over Kshs 301,000 as represented in table 2.

Table 2: Annual turnover

Annual turnover	Frequency	Percent
Less than Kshs 150,000	11	36.7
Kshs 151,000 - 300,000	11	36.7
Over 301,000	8	26.7
Total	30	100.0

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

This chapter presents analysis and findings of the studies. They are presented for each of the objective of the study, each of which constitutes a section in this chapter.

4.1 Profile of Respondents

From the study population target of 30 small scale export farmers, 30 responded to the questionnaire, constituting 100 % response rate.

Table 1: Gender of respondent

Gender	Frequency	Percent
Male	23	76.7
Female	7	23.3
Total	30	100.0

76.7% of the respondents were male and 23.3% were female. Farmers of all age groups were interviewed but the majority of them were in the age group 30-50 years. About 86.7% have not received any further training in agriculture. 13.3% have up to 5 years own farm experience, 56.7% have 6-10 years and 23.3% have 11-15 years and 6.7% have over 16 years of experience. 83.3% have less than 5 acres on export horticulture crop while the remaining 16.7% have 6-10 acres on export horticulture crops. The percentage of the farmers with annual turnover less than Kshs 150,000 and kshs151,000 -300,000 was the same, 36.7% while the rest 26.7% are earning over kshs 301,000 as represented in table 2.

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Over 301,000	8	26.7
Total	30	100.0

96.7% of the small scale export farmers grow the export horticulture crops throughout the whole year and they do so because this is a business to them, an occupation and a means of livelihood.

36.7 % of the farmers will sell their produce as a group while 63.3% sells their produce as individuals.

Table 3: Importance of implementing SPS requirements

Importance of SPS requirements	Frequency	Percent
Yes	28	93.3
Not sure	1	3.3
No	1	3.3
Total	30	100.0

Majority of the farmers 93.3% acknowledged that implementation of SPS requirements are important to the export farming business and only 3.3% were either not sure of their importance or didn't think the implementation was important.

4.2 Challenges Encountered as a Result of SPS

The first objective sort to establish the challenges small scale horticulture growers encounter as a result of SPS requirements. Data was collected was summarized and presented in form of tables, percentages, mean scores and standard deviation. In the interpretation the higher the mean score the higher the rating in terms of importance of the challenge. The results are presented in table 4 and 5 below.

Table 4: Influence of some factors of SPS requirements in the business

Position	Factor	Mean	Std. Deviation
1	Cost	5.00	0.00
2	Quality	4.53	0.94
3	PHI	4.80	0.76
4	Record Keeping	3.97	1.13
5	Crop programmes	2.97	0.99

As per the table 4, a mean score of 5 indicates that the SPS requirements have been of most importance while a score of 1 indicates that they have been of least importance.

Cost was by far pointed out by the respondents to be most important on the business with regard to SPS, followed by decisions made on PHI, quality of the produce, record keeping and finally, minimal impact has been noted on the crop programmes. 93.3% of the respondents said it was important to observe the SPS requirements to avoid rejection of the produce while 3.3% said it was important so that they could fetch more money with their produce.

Table 5: Problems encountered by the respondents in achieving SPS compliancy

Position		Mean	Std. Dev.
1	Lack of credit facilities	4.93	0.37
2	Increment in labour cost	4.77	0.57
3	Lack of cooling facilities in the farm	4.77	0.68
4	Increased rejection rate of the produce	4.73	0.64
5	Lack of adequate funds for compliance assessment	4.63	0.67
6	Insufficient knowledge on pest control	3.47	0.82
7	Minimal information about market requirements	3.40	1.03
8	Lack of technical support to achieve compliancy	3.33	0.99

The mean of 4.77 representing lack of credit facilities was the highest and lack of technical support to achieve compliancy had the least mean of 3.33. According to the above means increment in labour cost and lack of cooling facilities in the farm had fairly high means and would be complemented with lack of adequate funds which had a mean of 4.63

4.3 Impact of SPS on the Business of the Small Scale Export Farmers

The second objective sort to determine the impact of SPS requirements on the business of small scale export horticultural growers in Kenya. From the data that was collected a rating scale of 1-5 was used to determine the extent of the impact, whereby 1 was considered to be least important and 5 rated as the highly important. The data was analyzed using means scores, frequencies and in some cases the standard deviation. The mean scores and frequencies were considered in interpretation of the

data. The high mean scores were shown to indicate high importance of the impact while the low means scores imply less importance of the highlighted impact. The results are presented in the tables below.

Table 6: Benefits of SPS compliancy

Benefits of complying	Frequency	Percent
More profit margins	2	6.7
Minimal loss of produce through rejection	26	86.7
More efficiency in management of the farm	1	3.3
Ability to expand business by more production	0	0
No benefit at all	1	3.3
Total	30	100

86.7 % of the respondents say that the only benefit they get from being compliant is that there has been minimal loss of produce through rejection by the exporting companies. All others are not considered to be of such importance to the respondents. Minimal rejection rate may explain why 90% of the farmers say they have been to sell more because of SPS compliancy as compared to 10% who have not been able to sell more. The table below shows the percentage increase of the sales.

Table 7: Incremental sales

Incremental sales	Frequency	Percent
< 30%	17	56.7
31-50%	10	33
51- 70%	2	6.7
> 70%	1	3.3
Total	30	100

Table 8: Effect of increase in the cost of production and labour

Extent of cost in meeting SPS requirements	Cost of production		Labour	
	Frequency	Percent	Frequency	Percent
Extremely high	12	40	9	30
Very high	18	60	20	66.7
Fairly high	0	0	1	3.3
Moderately high	0	0	0	0
Indifferent	0	0	0	0
Total	30	100.0	30	100.0

On increase in cost as a result of meeting the SPS requirements, 40% and 60% said cost of production was extremely high and very high respectively. 30%, 66.7% and 3.3% said the cost of labour was extremely high, very high and fairly high respectively. All respondents said they had to increase their investments in the farm so as to meet the SPS requirements and this is would be directly linked with the incremental costs.

Table 9: Quality of produce since compliancy

Quality of produce	Frequency	Percent
No change	0	0
Slightly better	8	26.7
Good	21	70
Very high quality	1	3.3
Total	30	0

The research findings showed that 26.7 % have had the quality of their produce being slightly better while 70% said the quality is only good since they became SPS compliant and only 1 respondent whose quality is of very high quality.

Table 10: Rejection rate since introduction of SPS requirements

Rejection rate	Frequency	Percent
> 20 %	28	93.3
21-40%	1	3.3
41-60%	1	3.3
< 61%	0	0
Total	30	100

Of the respondents 93.3% have had a rejection percentage of less than 20 % and only 2 respondents had a rejection rate of 21-60%. The rejection rate has therefore been minimized due to SPS requirements.

Table 11: Incremental Profit margins

Profit margins	Frequency	Percent
None	16	53.3
1-10%	8	26.7
11-20%	3	10
21-30%	2	6.7
< 31%	1	3.3
Total	30	0

On incremental profit margins low margins have been achieved, with 53.3% of the respondents saying there has been no incremental profit while 26.7% received 1-10% margin and only 3, 2 and 1 respondent receiving 11-20%, 21-30% and above 31% respectively.

With regard to cost of audits the respondents said either the cost of audits for certification was either very high 53.3% or extremely high 46.7%. None of the farmers was of the opinion that the cost of carrying the audits was affordable and neither said it was not high.

4.4 Response of the Farmers to the Challenges

The third and last objective that the study seeks to find out was how the small scale export horticulture growers are responding to the challenges. Data collected was rated as per the percentages and the higher the percentage was an indication of the most preferred choice. The data collected summarized and presented in form of tables and percentages. The results are presented in the tables below.

Table 12: Implementation of the requirements

Means of implementation	Frequency	Percent
Do it yourself/individually	4	13.3
Get assistance from farmer groups like FPEAK	0	0
Get assistance from the company buying the produce	26	86.7
Get assistance from the government agencies	0	0
Total	30	100

86.7% of the respondents said they know what SPS are and only 4 didn't know. Of the ones who knew these requirements 86.7 % get assistance from the company buying the produce to implement the requirements. The remaining respondents try to implement the requirements as individual.

Table 13: Reason for keeping records

Reasons for record keeping	Frequency	Percent
To enhance efficiency	4	6.7
To make more money	4	6.7
As part of SPS compliancy	26	86.7
No reason at all	0	0
Total	30	100

86.7% keep records as part of the SPS compliancy while the remaining 4 was either to enhance efficiency or to make money. All respondents, 100% keep records during production and 36.7 % said the records are on pesticide usage while 46.7% kept yield records 13.3 % kept all the mentioned records.

Table 14: What the farmers do to gain knowledge on SPS requirements

Actions to gain knowledge of SPS	Frequency	Percent
Attend seminars	5	16.7
Attend agricultural field days	25	83.3
From the media	0	0
Recommendations by other farmers	0	0
Nothing	0	0
Total	30	100

93.3% of the respondents said that they had received some from of training on how to meet SPS requirements while 6.7% didn't receive any training. Of those who received training 96.6% got the training from the company buying the produce while 3.4% were trained by a chemical company. The training received was deemed by 93.1% to be slightly adequate while 6.9 % don't think it's adequate.

The respondents also try to gain knowledge of SPS requirements in production and marketing.16.7% said they attend seminars to gain the knowledge and 83.3 % attend agricultural field days.

Table 15: Time taken to meet SPS requirements

Period to attain compliancy	Frequency	Percent
Less than 3 months	0	0
6 months	4	6.7
One year	26	86.7
More than one year	0	0
Total	30	100

All the respondents either took about 6 months or 1 year to become compliant. 6.7% respondents took 6 months and 86.7% one year.

Table 16: Numbers of farmers now stopped growing due to the stringent measures

Number of farmers	Frequency	Percent
Less than 10	5	16.7
11-20	19	63.3
21-30	6	20
More than 31	0	0
Total	30	100

Every respondent knows a farmer who has stopped growing export horticulture crops due to the stringent measures. 96.7% of the respondents said they will continue for export while only 1 respondent plans to stop growing for export.

that implementation of SPS requirements are important to them. They therefore have tried to be compliant. However they are certain challenges that deemed most important to them. Cost was highlighted among the most important. However other factors like quality, PHH and record keeping were viewed to be of importance too. These were highlighted because as the farmers try to be compliant they must tackle them. Before the requirements were introduced these were issues that the farmers did not bother with.

The leading challenge encountered as indicated was lack of credit facilities. The much needed cash would be beneficial to the farmers to be able to meet the requirements as well as improve farm infrastructure. In addition problems like increment in labour cost, lack of cooling facilities in the farm, lack of adequate funds for compliancy, increased rejection rate of the produce were amongst similar in rating. These would then show why there was dire need of the credit facilities especially in the cost of building cooling facilities on the farm which would be quite high.

There are other challenges that were also pointed out such as insufficient knowledge on control of pests which would be lead to increase of rejection of the produce. The

5.1 Summary, Discussions and Conclusions

This chapter outlines the summary of findings, conclusions, recommendations and suggestions for further research. One of the objectives of this study was to establish the challenges the small scale export farmers encounter as a result of SPS requirements.

The results show that lack of credit facilities' needed to meet the SPS requirements was rated as the number one problem. Majority of the farmers (93.3%) acknowledged that implementation of SPS requirements are important to them. They therefore have tried to be compliant. However they are certain challenges that deemed most important to them. Cost was highlighted among the most important. However other factors like quality, PHI and record keeping were viewed to be of importance too. These were highlighted because as the farmers try to be complaint they must tackle them. Before the requirements were introduced these were issues that the farmers did not bother with.

The leading challenge encountered as indicated was lack of credit facilities. The much needed cash would be beneficial to the farmers to be able to meet the requirements as well as improve farm infrastructure. In addition problems like increment in labour cost, lack of cooling facilities in the farm, lack of adequate funds for compliancy, increased rejection rate of the produce were almost similar in rating. These would then show why there was dire need of the credit facilities especially in the cost of building cooling facilities on the farm which would be quite high.

There are other challenges that were also pointed out such as insufficient knowledge on control of pests which would be lead to increase of rejection of the produce. The

farmers also raised the lack of technical support as a challenge although this did not rate very high showing some support is often given by the buying companies and finally the farmers do not have a big problem with information on market requirements and would be because the buying companies would always offer this information to ensure compliancy.

The second objective that this study sort to determine was the impact of SPS on the business of small scale export horticultural growers in Kenya. The study brought out cost as the major impact on the business.

Hooker and Caswell (1999) shows that when an SPS regulation asymmetrically increase the compliance cost of the producers, it will have a “tariffication” effect, i.e raise equilibrium price, reduce total demand, reduce imports and domestic production, even though no tariff revenue is generated. . The cost of production and labour which was said to either be extremely high or very high and was shown to have had a big impact on the profit margins. These costs were tied to compliancy of SPS requirements. More labour is needed to ensure the various infrastructures is put up, records are kept, therefore calling for more paper work in the actual production. These are consequences of meeting the requirements. Antle (1999) identifies and describes three cost estimation methods that can be used. One of them being the consequences of meeting specified regulatory standards.

However the requirements have also had benefits and the farmers’ main benefit was minimized rejection of produce. This however did not have any benefit with regard to profit margins which have not had any substantial improvement. The better quality produce has been preferred by the buyers thus increasing the sales volume but not at a

better price. In Antle (1999) the cost of production is independent of the both output and quality.

It can be argued that small farms could experience disproportionately larger costs of compliance due to lack of economies of scale arising from in house quality control facilities or in bulk rates from outside testing facilities (Loader and Hobbs, 1999). Empirical support for this proposition comes from Henson and Heasman (1998) which finds that unit compliance costs are negatively related to firm size (implying some economies of scale) and that “large farms are generally more able to comply with regulations in a manner which yields competitive advantage than small firms”.

The third objective aimed at finding out how the small scale horticulture export horticultural farmers were responding to the challenges. It was clear that the farmers have tried to adopt to be able to deal with this challenges which was indicated by the fact that all the respondents except one said that they will continue to grow the export crops even with the stringent measures. With the high costs and lack of credit facilities the farmers are asking for assistance in implementation of the SPS requirements from the company buying the produce. This was said by 86.7 % of the respondents who also said it was very difficult to do it as individuals. The farmers know that the purchasing companies are interested because they want quality products and continuous availability of the products.

The expense involved in meeting conformance requirements by the farmers is sufficiently prohibitive to make the post-conformance import price higher than the domestic price of the importing country, Oyejide et.al (2000). The buying companies who export the produce would not want to face a partial export ban due to non-conformity.

As the SPS requirements get more stringent the farmers indicate trying to conform as individual as the least preferred option because of the limited chances to succeed alone. The farmers themselves are putting efforts in try to gain as much knowledge of SPS. They attend seminars which are organized to discuss the requirements and also attend the various agricultural field days to appreciate the technologies that may assist in being economical in their production. These farmers all said they go out of their way to gain this knowledge.

5.2 Limitations of the Study

The major limitation in this study was that it was conducted on small scale export horticulture growers therefore mainly focusing on the fresh grown crops yet the SPS requirements cover the processed food products which are of growing importance in Kenya with regard to global trade.

It was also not possible to take a larger sample of the respondents due to time and financial constraints and the fact that respondents had to be picked by judgemental method due to language barrier. The questionnaire was in English and only those farmers who understand English were selected to answer.

The other limitation encountered was the tendency to consider the SPS requirements that are mainly in favour of EU countries yet exports of both fresh and processed foods are expanding to other regions of the world. Markets are expanding into other regions which have also developed their own SPS requirements.

5.3 Recommendations for Further Research

This study documented the impact of SPS requirements on the export trade of small scale horticulture growers in Kenya. A study could be carried out to find out the impact of SPS requirements on fresh and processed foods in Kenya.

Another study could also be conducted to identify the applicable SPS requirements for our Kenyan exporters that can be bench marked to meet the expected standards for major markets. There should be a lot of lobbying to ensure the acceptance of the bench marked SPS requirements

5.4 Recommendations for Policy and Practice

Several key elements of cost compliance with SPS requirements can be identified. The agreement provides that, as much as possible, countries should base their SPS requirements on standards established or recommended bodies. Therefore there should be an effective participation in the activities of these bodies not only attending their meetings but also influencing the kind of requirements expected.

Secondly SPS agreement permits countries to set their own SPS requirements well above those suggested by international bodies on the basis of their own risk assessment. Such higher than normal standards can be challenged in the WTO. There is need to work with the stakeholders to create the appropriate legal framework and supporting infrastructure to carry out relevant risk assessments.

There is also need to negotiate for local conformity assessment bodies to be recognised as credible to the importing countries as way of reducing cost on assessment. They can be benchmarked with the foreign assessment bodies for

conformity. Then there is need to market the local bodies to be acceptable to all the importers.

The buying companies must also be willing to become key supporter of the farmers as they try to achieve compliancy. Bringing them into groups is a better approach as they can benefit from pooling infrastructure. Hence it will be easier to finance groups than individuals and there will also be the benefits of economies of scale.

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Dear Sir/Madam,

RE: MBA RESEARCH PROJECT QUESTIONNAIRE

The undersigned is a student at U.O.N, pursuing an MBA degree in International Business. As part of her course work assessment, she is required to submit a research project report.

As one of the small scale export horticulture growers you have been selected for a survey on Impact of Sanitary and Phytosanitary in export trade of small scale horticulture growers. You are kindly requested to complete the attached questionnaire to gather information on the impact.

All the information you disclose will be used only for this academic exercise and will be treated in the strictest of confidence. Your cooperation will be highly appreciated.

Yours faithfully

Susan Njoroge
MBA Student

Dr. Ogutu
Supervisor

APPENDICES

Appendix 1: Letter of Introduction

School of Business
University of Nairobi
P.O. BOX 30197
Nairobi

Dear Sir/Madam,

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Yours faithfully

Susan Njoroge
MBA Student

Dr Ogutu
Supervisor

Appendix 2: Questionnaire

This study seeks to establish the challenges and impact of SPS requirements on the small scale horticulture export growers. Kindly complete the questionnaire. Your responses will be kept completely confidential.

PART 1

1. Name of Respondent (optional) _____

2. Age of Respondent _____

3. Gender of Respondent: Male () Female ()

4. Location of the farm (District, Division and Location) _____

5. Education Background of the respondent _____

6. Training of the respondent _____

7. Experience of respondent in years _____

8. How large is your farm in acres _____

9. What acreage is the horticulture crops covering _____

10. Your annual turnover (please tick one)

Less than Ksh 150,000 ()

Ksh 151,000 to 300,000 ()

Over Ksh 310,000 ()

Other (please specify) _____

11. Do you plant horticulture crops throughout the year? Yes () No ()

12. Give reasons for your answer above _____

13. How do you sell your produce? As a group () individually ()

PART II

14. Do you consider SPS requirements important (the implementation, the cost)?

Yes

Not sure

No

15. Using the (1) as least important and (5) as the most important, please indicate the importance of the following factors of SPS requirements in your business?

	Least important			Most important	
Factor	1	2	3	4	5
Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PHI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crop programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others (Please specify)	_____				

16. For the above named requirements please indicate the reason why it's important to observe them in your production?

- A. To avoid rejection of the produce
- B. To fetch more money for your produce
- C. To become an opinion leader in horticulture farming.
- D. Others

17. Given the problems you have encountered when trying to be SPS compliant, please indicate using number (1) as the least important and (5) as most important.

	1	2	3	4	5
Increment of labour costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Insufficient knowledge on pest control () () () () ()
- Lack of credit facilities () () () () ()
- Lack of cooling facilities in the farm () () () () ()
- Minimal information about market requirements () () () () ()
- Lack of adequate funds for compliance assessment () () () () ()
- Lack of technical support to achieve compliancy () () () () ()
- Increased rejection rate of the produce. () () () () ()

18. With regard to SPS, please tick the benefits you have encountered?

- A. More profit margins ()
- B. Minimal loss of produce through rejection ()
- C. More efficiency in management of the farm ()
- D. Ability to expand business by more production ()
- E. No benefit all ()

19. In terms of sales, have you been able to sell more because of meeting most of the SPS requirements?

Yes ()

No ()

20. If yes, by how much in percentage?

- A. > 30% ()
- B. 31%-50% ()
- C. 51%-70% ()
- D. < 71% ()

21. In a scale of 1 to 5, Please indicate if EUREPGAP has made your products to be the preferred ones by the buyers.

1. Not all ()
2. Slightly preferred ()

3. Average ()

4. Highly preferred ()

5. Very Highly preferred ()

22. As a result of meeting the SPS requirements has the cost of production increased?
Give this in a scale of 1 – 5.

1. Extremely high ()

2. Very high ()

3. Fairly high ()

4. Moderately high ()

5. Indifferent ()

23. With the aim of meeting SPS requirements to what extent has the cost of your labour increased?

A. Extremely high ()

B. Very high ()

C. Fairly high ()

D. Moderately high ()

E. Indifferent ()

24. Have you had to increase your investment in the Farm so as to meet the SPS requirements?

A. Not at all ()

B. Huge increment ()

C. About average ()

D. Less than average ()

25. Do you have to spend more time trying to get trained so as to meet the SPS requirement?

A. Minimal time ()

B. Fairly a lot of time ()

11. If C. Average ()

D. Too much time ()

26. Rate the quality of your products since you started being SPS compliant

1. No change ()

2. Slightly better ()

4. Good ()

5. Very High quality ()

27. Rate the rejection percentage of your produce since the SPS measures were introduced

A. 0-20% ()

B. 21-40% ()

C. 41- 60% ()

D Above 61% ()

28. In terms of profit margins, show in percentage what you have observed as incremental as a result of SPS requirements.

A. 0-10% ()

B. 11-20 % ()

C. 21-30% ()

D. 31-40% ()

E. Above 41% ()

29. How would you rate the cost of audits needed for certification?

1. Not high ()

2. Affordable ()

3. Very high ()

4. Extremely High ()

30. Do you know what EUREPGAP is? Yes () No ()

31. If Yes, how do you implement the requirements? ()

- A. Do it yourself/individually ()
- B. Get assistance from farmer groups like FPEAK. ()
- C. Get assistance form the Company buying your produce. ()
- D. Get assistance form the Government agencies. ()

32. How do you determine Pre-harvest intervals (PHI)? ()

- A. By reading the label of the pesticide ()
- B. Advice given by the government extension workers ()
- C. Advice from the company you are growing for. ()
- D. When the crop is ready for harvest. ()

33. Do you keep records of your activities during production? Yes () No ()

34. If yes, what records do you keep? ()

- A. Pesticides usage ()
- B. Yield ()
- C. Cost of production ()
- D. All of the above ()

35. Why do you keep records? ()

- A. To enhance efficiency ()
- B. To make more money ()
- C. As part of the SPS compliancy ()
- D. No reason at all ()

36. How long has it taken you to meet the SPS requirements? ()

- A. Less than 3 months ()
- B. 6 months ()
- C. One year ()

D. More than I year ()

37. Do you receive any form of training on how to meet the SPS requirements?

Yes ()

No ()

38. If yes, who has been giving this training?

A. The government through extension officers ()

B. The Company buying the produce ()

C. Private organisations? Name them () _____

D. Chemical companies ()

39. How adequate is the information given in the training assisting in meeting the requirements?

A. Not adequate ()

B. Slightly adequate ()

C. Adequate ()

D. Very adequate ()

40. What do you as a farmer do to gain knowledge of the SPS requirements in Production and marketing?

A. Attend Seminars ()

B. Attend Agricultural field days ()

C. From the media ()

D. Recommendations by other farmers ()

E. Nothing ()

41. How many farmers that you know used to grow and now have stopped as a result of these stringent measures?

A. Less than 10 ()

B. Between 11-20 ()

C. Between 21-30 ()

42. Do you intend to continue growing horticulture products for export as the SPS requirements continue to be stringent? Yes () No ()

Give reason for your answer _____
