THE CHOICE OF DISTRIBUTION CHANNELS. "A CASE OF THE KENYAN CUT-FLOWER INDUSTRY"

BY

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The choice of distribution

OCTOBER 2007

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DECLARATION

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

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KENYATTA UNIVERSITY
DEDICATION

To my loving family and parents for their never ending support, love and commitment to provide the best for me and my siblings.

Live long and may the Lord Bless you.
ACKNOWLEDGEMENT

Making this study a success wouldn’t have been possible had it not been for the assistance and support from various individuals and firms. Though difficult to mention each and everyone, I wish to express my sincere gratitude my supervisor, Dr M. Khayota, for guiding me through this project, the firms which granted me a chance to interview them, my classmates with whom we have always shared critical moments during the research period, and my family and friends for their moral, material, and academic support during the entire period of this study.

I sincerely thank all of them.
The world of cut flower industry is a highly dynamic environment. Product varieties, the origin of production, production techniques, marketing and distribution arrangements are all undergoing continuous change. This characteristic of the industry is challenging the adaptive nature of all exporters.

The floriculture industry is increasingly becoming an important foreign exchange earner for Kenya hence this study is sought to investigate the types of distribution channels that flower exporters in the country use and the challenges they face when deciding on the choice of these channels.

The research study involved 50 flower farms registered with FPEAK and who have offices in Nairobi environs. A questionnaire was used to collect data, and the findings were analyzed by using the Statistical Package for Social Sciences (SPSS).

It is hoped that the results from this study will have important managerial implications for operators in the cut-flower industry and other stakeholders participating in the distribution process.
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>FPEAK</td>
<td>Fresh Produce Exporters Association of Kenya</td>
</tr>
<tr>
<td>HCDA</td>
<td>Horticultural Development Authority</td>
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<tr>
<td>KFC</td>
<td>Kenya Flower Council</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>UK</td>
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DEFINITIONS OF TERMS

**Channel of Distribution:** This is an entity consisting of a set of related marketing institutions, agencies and establishments responsible for the physical and title flow of products from the producer to the consumer or end user. (Stern and El Ansary, 1992).

**Intermediary/Middlemen:** This is an individual or business that operates between the producer of a product and the end consumer. This may include wholesalers, agents and brokers (Kotler, 2003).

**Channel Length:** This is used to summarize the characteristics of a given channel system. The greater the number of intermediaries, the longer the channel. Conversely the lesser the number of intermediaries, the shorter the channel (Kotler, 2003).

**Direct/Integrated Distribution Channel:** This is the type of channel in which a firm sells directly to the final consumer without using intermediaries (Anderson, and Coughlan, 1987).

**Indirect/Non-Integrated Channel:** This describes a type of distribution channel in which the firm involves middlemen or intermediaries in availing its products to final consumers (Anderson and Coughlan, 1987).
CHAPTER ONE
INTRODUCTION

1.1 BACKGROUND INFORMATION

The cut flower industry is amongst the fastest growing sectors of the Kenyan economy. This can be seen by its phenomenal expansion in the last 13 years, with an estimated annual growth rate of 20 per cent. It has increased its export volume from 19,807 to 81,218 tons between 1992 and 2005 which is an increase of 310 per cent. Within a relatively short period of time, Kenya has surpassed both Israel and Colombia to become the largest cut flower exporter to the European Union Commanding a 25 per cent market share. (HCDA Statistics 2005).

According to the Kenya Flower Council (KFC), the cut flower industry is the second largest foreign exchange earner after tea. The industry has grown from being nascent to one of the leading sectors of the Kenyan economy. Many regard it as ‘an island of success in a sea of failure’; particularly as traditional exports such as coffee have been faced by dismal performance over the last decade.

Export marketing of cut-flowers is geared more on the International market than the domestic market which is almost absent. The key players: Horticultural Crop Development Authority (HCDA), The Fresh Produce Exporters Association of Kenya (FPEAK), and Kenya Flower Council (KFC) have made deliberate moves
to market cut flowers. This has been (and not limited to) Trade fairs, use of the Internet and the worldwide web, the flower auctions, among others.

1.1.1. Brief history

Kenya’s flower industry had its humble beginnings soon after the end of the Second World War. Exports did not begin to take off, quite literally as it happens, until the late 60s, when wide-bodied jets started to bring large numbers of tourists to Kenya and service the fresh produce industry. With increased airfreight capacity between Europe and Kenya in the 1970s, horticultural trade in fresh produce and cut flowers grew rapidly.

1.1.2. Structure

Recent estimates are that the industry has roughly 5,000 producers ranging from smallholder farmers to large commercial operations. About 50 medium to large-scale operations produce 75% of total exports. Size of these operations ranges from 20-100 hectares, with work forces of between 250-6000 employees. Smallholders grow much of the remaining flower production, mostly in open plots of less than half a hectare. The quality of flowers coming from these growers is poor, thereby adding further difficulties to the already considerable infrastructure problems of linking smallholders to export markets. The economies of scale are increasingly becoming important, as margins on roses are decreasing. Today, to be viable, operations must be as large as 10 to 15 hectares. (Whitaker and Kolavalli, 2004)
Cut flowers are highly perishable products: they have a vase life of a few days to a couple of weeks. This demands an effective and uninterrupted cold chain from
the moment the flowers are harvested until they reach the vase of the final consumer. Figure 1 above explains how the chain flows from the green house until the flowers are loaded on to the aircraft.

There is need for highly efficient long and short distance freight transportation arrangements and mechanisms for profitable rapid sales. Thus, consistency in cold chain is essential to ensure quality loss between harvest and consumption is minimal. This has been a challenge to the flower producers who depend on agents, wholesalers and the auction market besides it being a cost factor.

1.1.3. Product Composition

The composition has evolved with changing market demands and growing producer expertise. Early development of the sector was based on production and export of carnations in the 1970’s. As the sector grew rapidly in the 1980’s, growers diversified into roses and approximately other 50 flower varieties including: Alstroemeria, Gypsophilla, Hypericum, Solidago, Lissianthus to name but a few.

Demand for traditional varieties like carnations is reaching saturation and in addition to this, there is evidence of declining price trends reflecting the degree of competition. Leimt (2000).
Table 1.1: Cut flower exports from Kenya by volume (000 tons), 1996-2005

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<tr>
<td>Roses</td>
<td>15.1</td>
<td>18.3</td>
<td>18.0</td>
<td>24.6</td>
<td>27.7</td>
<td>30.0</td>
<td>40.4</td>
<td>45.7</td>
<td>48.3</td>
<td>61.1</td>
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<tr>
<td>Alstroemeria</td>
<td>4.2</td>
<td>2.7</td>
<td>1.9</td>
<td>1.7</td>
<td>1.1</td>
<td>0.7</td>
<td>0.6</td>
<td>0.8</td>
<td>0.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Carnations, std</td>
<td>2.5</td>
<td>0.7</td>
<td>1.0</td>
<td>1.1</td>
<td>1.4</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
<td>1.8</td>
<td>2.6</td>
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<tr>
<td>Carnations, spr</td>
<td>0.5</td>
<td>2.1</td>
<td>1.8</td>
<td>1.9</td>
<td>1.2</td>
<td>0.4</td>
<td>0.2</td>
<td>0.4</td>
<td>0.9</td>
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<tr>
<td>Cut foliage</td>
<td>5.9</td>
<td>5.5</td>
<td>1.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.3</td>
<td>0.6</td>
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<td>Staticelimoni</td>
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<td>1.6</td>
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<td>1.1</td>
<td>0.6</td>
<td>0.2</td>
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<td>Mixed Flowers</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.7</td>
<td>0.6</td>
<td>4.7</td>
<td>4.5</td>
<td>6.3</td>
<td>5.6</td>
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<tr>
<td>Other</td>
<td>2.2</td>
<td>3.2</td>
<td>3.0</td>
<td>4.0</td>
<td>4.6</td>
<td>2.4</td>
<td>4.0</td>
<td>5.9</td>
<td>9.2</td>
<td>7.6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>35.2</strong></td>
<td><strong>35.9</strong></td>
<td><strong>30.2</strong></td>
<td><strong>37.0</strong></td>
<td><strong>38.8</strong></td>
<td><strong>41.4</strong></td>
<td><strong>52.1</strong></td>
<td><strong>61.0</strong></td>
<td><strong>70.6</strong></td>
<td><strong>81.2</strong></td>
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Source: HCDA statistics, 1996-2005

From Table 1.1, it is clear that the sector is dominated by production of roses. Between 1996 and 2005, Kenyan rose’s exports have increased from 15,000 to 61,000 tons. Since the year 2000 roses have constituted 70-75% of export volume triggered by higher world prices fetched by roses as compared to other varieties.

Cut flowers also feature high variability in their quality. Quality variability makes it difficult for flower growers in Kenya to handle bulk on description transactions that is according to the quality standards at the auctions. The
physical inspection of the product which is done down the distribution channel has also been continuously challenging through product rejection. (Thoen et al, 2000).

With the above, growers face uncertain future in the industry due to declining demand for lower quality flowers and increasing production and marketing costs.

1.1.4. Production environments

Favorable year-round growing conditions give Kenyan growers a competitive edge over growers in regions with cold winters, such as Europe, or hot summers, such as the Middle East. The equatorial location provides stable and favorable year-round growing conditions in terms of light intensity, day length, and temperature for horticulture in general and flower production in particular. The highlands don’t suffer the extreme summer heat of low-lying areas, and have a differential between night and day temperatures essential for best quality in many flowers such as roses.

The main flower growing areas are in the highlands above 1,500 meters, around Lake Naivasha, Thika, Limuru (Kiambu), Eldoret, Athi River, Muranga, Nyeri, Kericho and Embu. Production is clustered in areas where irrigation water is available, and where the necessary infrastructure exists for production, i.e. electricity, telecommunication and efficient transport to export markets such as developed road networks or a nearby airport.
Thoen et al (2000) comments that African growers operate on counter seasonal basis to the patterns of the production in Europe. Exports are high over November to May with specific demand associated with Valentines Day, Easter, Mother's day and Christmas. During the winter months, supplies are lower in Europe and are based on expensive artificial heating and lighting systems. Exports from the African Region are low in June to August due to the availability of low cost supplies within Europe and some discrimination in the Auction. This has created pressure on growers to pursue alternative marketing arrangements, which is full of risks. Growers who don't follow flush pattern face flush periods, which lead to huge losses as flowers have to be destroyed yet they have been grown expensively due to lack of proper timing of the market.

1.1.5. Air freight charges

Flower distribution is a highly transport and logistic dependent operation, and it is often the single most expensive and crucial element of being a successful exporter of cut flowers. Often it is essential to be located within a short distance from an international airport to have access to international freight carriers. Nairobi, the capital city, is a major hub and is very well served by major airlines and charter operators giving easy airfreight access to the European markets and from there to the rest of the world. While commercial airlines offer reliability and access to key European ports of entry, the freight charges are considerably more expensive than chartered services. Thoen et al (2000) argues that the rates for cut
flowers are based on volume rather than weight, and this means that the average freight rate per kilo is higher for flowers.

1.1.6. Infrastructure

Ross (2000), comments that flowers are perishable products and the freshness at which it reaches the market is critical. This posses problems to the less developed countries as it requires good physical infrastructure to move the product from the farms to the export market. He notes that in many less developed countries like Zimbabwe, Coted'Ivore, Cameroon, Jamaica and Ecuador face the following infrastructure problems:

- Poor roads especially from farms to the major towns.
- High transport cost
- Lack of cold chain transport and storage facilities at the airport.

Webule et al (1995), identified transport to be a marketing challenge to horticulture growers in Kenya because of poor roads in producing areas combined with high precipitation of the produce. He also notes that there has been numerous rejection of produce at the airport after inspection by Kenya Plant Health Inspectorate Service (KEPHIS) officials due to substandard quality compromised by inadequate cold chain transport. Complaints also are received from overseas clients because of poor handling.
1.2. STATEMENT OF THE PROBLEM

The biggest test in marketing is delivery of products or services to the right market (consumer), at the right time, and in the right specification. Recent business and technological trends have transformed the structure and performance requirements of distribution channels in many business sectors. Higher service level expectations of retail customers, distribution outsourcing by suppliers or producers present new problems in supply chain management. Therefore, most firms must face the complex challenge of reconfiguring their distribution chains. The cut flower industry has not been spared by this wave of change.

Dutch flower auctions have historically been the most important channels through which Kenyan flowers have reached European wholesalers and retailers. However, changing consumption patterns and supermarket supply rationalizations are beginning to erode the auctions’ importance. The dependable auction market has been weakened and cut flower exporters are faced with the daunting task of re-structuring their distribution channels to be direct in nature.

Studies done in the floriculture sector have mainly focused on production aspects, working conditions in the flower industry or trade policies. Previous research by Opondo, (2001), Judy, (2001) and Tuitoek, (2002) have not tackled the issues surrounding the choice of distribution channels that growers face in an attempt to meet their clients demands. The purpose of this study is to investigate
the problems encountered by growers in their endeavour to deliver quality products to the right market, on time, and at the right price so as to remain in business and thus contribute to the economic growth of the country.

1.3. OBJECTIVES OF THE STUDY

1.3.1. General Objective

To determine factors that influence the choice of distribution channels in the cut flower industry.

1.3.2. Specific Objectives

a) To determine factors that influence selection of distribution channels by cut flower growers.

b) To determine the relative importance of these factors in selection of the distribution channels.

1.4. RESEARCH QUESTIONS

1. What factors influence selection of distribution channels?

2. What is the relative importance of these factors in selecting the distribution channels?

1.5. RESEARCH HYPOTHESES

According to Kothari (2000), a hypothesis is a proposition set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjecture to guide some investigations or
acceptable as highly probable in the light of established facts. Basing on the literature and the objectives of this study, the following hypotheses were developed to guide this study:

**Hypothesis One:**

$H_0$: The farm size is not significantly related to the opinion on channel profitability (direct versus indirect channel)

$H_1$: The farm size is significantly related to the opinion on channel profitability (direct versus indirect channel)

**Hypothesis Two:**

$H_0$: The firm age (years of operation) is not significantly related to the opinion on channel profitability (direct versus indirect channel)

$H_1$: The firm age (years of operation) is significantly related to the opinion on channel profitability (direct versus indirect channel)

**Hypothesis Three:**

$H_0$: Having an export marketing office abroad is not significantly related to the hectarage of the farm.

$H_1$: Having an export marketing office abroad is significantly related to the hectarage of the farm.
1.6. SIGNIFICANCE OF THE STUDY

This study is going to be of paramount importance to various stakeholders:

a) Growers both prospective and those already in business, seeking to sell their products to new markets or increase their sales volume, it is hoped that they will use the results of this study to improve their performance of distribution tasks.

b) Policy makers can use the results to act as a yardstick, in aiding them to design policies and strategies which will effectively address the market opportunities and challenges accompanying them.

c) To Academicians and other researchers it will give an insight on the current knowledge and understanding of the various channels of distribution open to cut flower growers in the country thus forming an empirical basis for further studies in this field.

d) As a spillover effect from improved distribution tasks, the consumers will gain from a more efficient and effective channel, which will hopefully make products be available on time, at the right place, and possibly in top quality.

1.7. COPE OF THE STUDY

This paper is structured into 5 parts. The first chapter contains an introduction giving a short description on the structure of the cut flower industry. The statement of the research problem, objectives of the study and significance of the study are contained herein.
Chapter two covers the literature review. It gives an introduction, followed by conceptual framework which highlights the selection process of distribution channels and the factors influencing their choice. This chapter also includes review of studies done in the area, critical review the major issue and gaps to be filled by the study. It will end with a summary.

Chapter three discusses the study design, the target population, sampling design, data collection and data analysis method. The fourth and fifth chapter covers data analysis, presentation of results and summary of major findings, conclusions and recommendations respectively.
CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter focuses on the review of literature related to this study. Specific concern is on the concept of channels of distribution used by Kenyan exporters and the factors that lead to their choice.

2.1.1 Distribution Channel: An Overview

Kotler (2003) defines Distribution Channels as sets of institutions, agencies and establishments through which a product must move from the producer to the final consumer. According to Stern and El-Ansary (1992), distribution channels perform the work of moving goods from producers to consumers. Thus they help overcome the time, places and possession gaps that separate goods and services from those who need or want them.

Baker (1992) contends with this view by asserting that distribution channels provide a link between production and consumption by filling any gap or discontinuity, which exists between them. Discontinuity between producers and consumers may arise from a number of causes; namely:

i) Geographical Separation

The application of the theory of comparative advantage leads to considerable concentration of production both at national and international scale. At the same time, population and economic growth have resulted in
many more widely dispersed consumers wanting access to these products. Thus distribution creates utilities in place availability.

ii) **Time**

Since production and consumption rarely occur simultaneously, with the exception of personal services, then distribution channels help to even out fluctuation in supply and demand by holding stocks and through provision of credit. These activities create time utility.

iii) **Information**

The information needs of consumers vary widely and channel intermediaries can provide a valuable service in advising consumers of the specific characteristics of the offerings of different producers.

iv) **Offering**

In addition to making goods physically available, channels also provide the mechanism whereby transfer of the legal title to ownership may be accomplished. It is worth noting that members of the distribution channel, will perform other key functions like financing, and risk taking (Kotler, 2003). In financing, the channel members facilitate acquisition and allocation of funds required to finance inventories at different levels of the distribution channel. Risk taking will involve the assumption of risks connected with carrying out the channel work.
2.2 CONCEPTUAL FRAMEWORK

Figure 2.1: Sequence of Decisions in Designing a Distribution Channel

Specify the role of distribution within the marketing mix:
- Offensive
- Defensive

Specify the type of distribution channel:
- Direct/Integrated.
- Indirect/Non/Integrated.

Determine the intensity of distribution:
- Intensive.
- Selective
- Exclusive

Choose the specific channel members

Channel Choice Outcome:
- Market Choice
- Profit
- Sales turnover
- Trade leverage

(Source: Adopted from Stanton, 1994: Fundamentals of Marketing)

2.2.1 Channel Selection Process:
Distribution Channel decisions are among the most critical decisions facing management. This is because channel choices once made, are often difficult to change. According to Kotler, (2003), the company’s chosen channels ultimately affect all other marketing decisions. Baker, (1992) supports this view by noting
that effective distribution is a sine qua non for marketing success. Therefore, before a firm decides on the type of distribution channel to use, it has to specify the role of distribution within the marketing mix. This is highlighted in Figure 2, which represents a model of the sequence of decision process followed in designing a distribution channel.

The firm must also decide whether distribution will be used offensively or defensively. Stanton, (1994), argues that defensive distribution involves imitating the place strategies of competition while offensive distribution strategy will aim at achieving differentiation by using unique distribution strategies.

A firm will also select either direct or indirect channels of distribution. Chege,(1996) maintains that the firm will face similar choices concerning related distribution functions such as transportation, advertising and warehousing. If a firm chooses to distribute its products directly, it has to decide on the type of distribution and number of own outlets to involve in order to maximize channel output. On the other hand, selection of an indirect distribution channel requires a decision as to the type and levels of intermediaries to involve in the performance of distributive tasks. Thus, the firm must determine the appropriate intensity of distribution to use; intensive, exclusive or selective distribution.

Intensive distribution involves the firm’s product being stocked by as many outlets as possible. That is any middleman who wants to distribute the product
will be allowed to do so. On the other hand, selective distribution entails a strategy of using some of those potentially available to distribute the product. Finally, the strategy of exclusive distribution involves getting into an agreement with a particular middleman whereby the producer gives that particular middleman exclusive right to market the product in a given market. The middleman on the other hand usually agrees not to carry any products of competitors (Kibera, 1988).

Finally, the firm has to choose specific channel members. It is expected that different choice decision will likely lead to different performance outcomes. Measures of such performance outcomes include market share, profit and sales turnover and trade leverage. It is assumed that if a firm fails to achieve desired outcomes, it will revise its choices until the most suitable outcome is achieved.

2.3. PAST STUDIES DONE IN THE AREA

According to Collinson, (2001), the Dutch auctions have been at the core of the distribution channel for Kenyan flower exporters. They have been the primary venue for sale of flowers from European producers and producers/exporters from Kenya and other countries, to European wholesalers. These wholesalers then in turn sell to European retailers or re-export to other overseas markets, Figure 3 below is illustrating this flow. However, changing consumption patterns and super-market supply chain rationalizations are beginning to erode the auctions importance. In a few key importing countries, particularly the UK, buying
behavior has changed away from occasional towards regular flower purchasing. This has increased not only the volume of purchases but also the importance of convenience stores such as fuel stations and supermarkets as retail outlets. Simultaneously, several large European supermarkets have simplified their horticultural supply chains by establishing direct links with producers.

Figure 2.2: The Dutch Cut-flower Chain


In their study, Thoen et al (2000) say that marketing costs at the Dutch auctions, range from 10-12% of the auction-selling price for large volumes or high value products and up to 20% for small volumes or low value products. The costs include commission, promotion levies, bucket rent and handling fees. The marketing costs and the freight costs inhibit marketing of small volumes of low value flowers from foreign growers. They stated that prices of Kenyan flowers
have declined as compared to other suppliers due to the fact that Kenyan flowers have not been classified in top grade categories. For instance, in 1998 one Dutch auction classified only 65% of Kenyan flowers in A1 category (first class quality) in contrast to 83% and 77% for Zambia and Zimbabwe respectively. One of the contributing factors to low value products is damages occurring in the supply chain.

In their paper, Floriculture in Kenya, Whitaker and Kollovali,( 2004), have established that in the past decade one of the most dynamic aspects of export and sale of cut flowers to European markets has been change in supply chain relationships. The traditional roles of various actors in the distribution and sale channels, from Kenyan producers/exporters to European import agents, to auctions, to wholesalers, then to the retailers have blurred. From this scenario, the problem of ineffective control of the distribution chain arises, thereby decreasing competitiveness. This goes to show that there is need for increased vertical integration, such that various actors will have to take on new roles and establish new types of linkages with other actors up and down the chain.

Wijnads, (2005) has highlighted some of the advantages and disadvantages that accrue to both growers/exporters and buyers from being auction members. Advantages include: Payment and settlements are executed within one day, all major trading opportunities are present in one location, the auction is the central hub providing logistics for transferring products between buyers and sellers,
Information regarding competitors, products, price and other trading information is readily available on their computerized systems.

The disadvantages cited by Wijnads, include: the grower has no control over the prices, Packaging costs are incurred multiple times; for transport to and from the auction., Multiple handling of the flowers can damage them, the auction has strict rules that must be adhered to, failure to which it can exclude growers and buyers who don’t meet the various criteria. Buyers and growers perceive quality grades as too broad, artificially inflating the value of products at the lower end of the quality rating, to overcome the above problem, an additional cost has to be incurred that of visual inspection.

Whitaker and Kollovalli, (2004), cited that import agents are an important adjunct to the Dutch Auctions. They provide services to facilitate the transfer of flower imports from airport to auction, providing the care necessary to assure the quality of perishable cut flowers until they reach their destination. They went on to say that agents also offer other services including marketing information and product development and consulting services for clients. Agents have developed financial linkages with overseas flower producers, at one end, and at the other end, have begun selling directly to wholesalers and retailers as well as through the auctions. While many exporters work through import agents, some of the larger Kenyan operations have opened their own European sales offices to more effectively manage the supply chains from production to sale. Oserian Company
Limited was the first to do this. Creating East African Flowers. Sher Agencies has also opened an office in Holland by the name of Sher Holland. These sales offices act as agents for multiple Kenyan producers and exporters. For instance Oserian supplies the Dutch auctions.

Luciano, (2004), has stated that wholesalers perform the function of buying at the auctions for the purpose of selling to retail outlets including florists' shops and supermarket chains, as well as to importers for overseas markets, taking responsibility for transporting the product from auction to buyer. Other functions of floral wholesalers include the following; product sourcing, brokering and handling, providing information on products and being a source of credit. The wholesalers serve as middlemen by gathering floriculture products in bulk and selling them in smaller units to retail florists. The product is sold at the best price available, then payment as a portion of the sales price, is made to the grower. Frequently wholesalers provide a line of credit to the retailer, particularly to new shop owners who have not established a firm credit line.

He further highlights another important role of floral wholesalers as that of identifying emerging market trends from the retail florists then pass this information on to growers. The farms in turn can modify production to meet perceived changes in demand. Thus the wholesaler plays a vital role as a communicator from the grower to the retail and from the retailer to the grower. A consequence of this function is that the wholesaler is occasionally blamed for
problems within the marketing channel, such as prices that are too low or too high, under or over supply of a particular product, poor quality or inadequate product selection or variety. Still wholesalers remain the principal source of supply, as well as care and handling information for retailers; for growers, they are the principal avenue for reaching the traditional retail florist.

As exporters have begun to bypass the auction through direct sales, some wholesalers have moved upstream in the supply chain by developing direct relationships with Kenyan flower producers.

Leimt, (2000), says that retailers represent the final market for most cut flowers. At retail level, flowers are sold through a variety of outlets including traditional florist, garden centers, supermarkets, and street vendors.

However, today supermarket chains overwhelmingly dominate the retail market. They usually maintain direct contact with exporters and are obtaining an increasing proportion of flower supplies direct from growers. This has important implications for suppliers in Kenya, which pose a challenge to change distribution strategy to directly supply supermarkets.

Whitaker and Kollovalli, (2004), have pointed out that, the two largest retail markets for Kenyan flowers, outside the Netherlands, are U.K and Germany. In the U.K, there have been two major shifts in buying behaviour of the
supermarket chains. They have eliminated intermediaries in the supply chain and developed more direct relationships with flower exporters. They have also looked for ways to outsource more distribution and the result has been the proliferation of special relationships between the supermarket chains and a small number of U.K importers and Kenyan exporters, that assure quality standards, provide some additional flexibility to the supermarkets, and some additional security to the exporters.

Some of the largest Kenyan operations have opened up their own U.K import offices. Companies like Oserian (World Flowers) and Homegrown (Flamingo, U.K.) now control the full distribution chain from harvest to transport to retail market. These direct relationship between exporters and retailers have greatly reduced difficulties in marketing information flow for large exporters.

2.4. CRITICAL REVIEW OF MAJOR ISSUE AND GAPS TO BE FILLED BY THE STUDY

Flower distribution is a highly transport and logistic dependent operation, and it is often the single most expensive and crucial element of being a successful exporter of cut flowers. Kenyan flowers are geared more for the International market thus its heavily dependent on air-transport. Thoen et al (2000), says that the availability and cost of airfreight has been a problem to African exporters. He argues that the rates for cut flowers are based on volume rather than weight, and this means that the average freight rate per kilo is higher flowers. The issue of
limited air routes, could be one of the main reasons why less developed African countries are finding it difficult to penetrate the market in the USA. For the purpose of this study, I will focus on Kenyan exporters to gauge whether the situation is still the same or changes have been experienced.

Staby and Reid (2005), comments that the trends towards direct supply to supermarkets is a major challenge to African growers. The major challenge is demand for high quality products failure to which leads to rejection. Because flowers are rapidly perishable, product quality hinges on the methods available for storing a product.

Other challenges include; late payments by supermarkets creates cash flow problems for exporters, and sometimes Supermarkets make last minute orders which cause a lot of inconveniences on the part of the exporter. This paper will investigate whether this is one of the reasons why majority of Kenyan flower exporters are pushing volumes to the auction despite supermarkets being a more profitable outlet.

Ross, (2000), in his paper about Cut flowers and foliage comments that a good physical infrastructure to move the product from the farms to the export market is of paramount importance owing to the nature of horticultural products being highly perishable. The condition in which the flowers reach the market will have a large bearing on the prices to be fetched. Some of the infrastructure problems
cited include: Poor roads especially from farms to the major towns, high transport cost, and lack of cold chain transport and storage facilities at the airport. The combination of long-distance transportation and poor temperature control has often resulted in flowers with inadequate longevity being sold to consumers. He has cited less developed countries such as Zimbabwe, Coted' Ivore, Cameroon, Jamaica and Ecuador to be experiencing the above problems. Does this case hold true for Kenyan flower industry?

Changes in consumption patterns has lead to demand for product diversification within the market in response to consumer demand for greater variety, in terms of flower types, colours, fragrances and other aspects of appearance. Researchers, seed companies and flower distributors have been put under pressure to meet this requirement (Thoen et al 2000). What are players in the industry doing to remain competitive? This paper seeks to find out whether there are any steps which have been taken to meet this need.

2.5. SUMMARY

Brady, (1978) advances a model that summarizes the factors that may influence the choice of distribution channels. He identifies product characteristics, producer characteristics, market characteristics and environmental characteristics.
Product characteristics, that are likely to affect channel choice decisions include, perishability, regularity of demand and availability of variety in the product line. Perishability of a product is important in determining the length of a channel of distribution. If products are highly perishable like in the case of cut flowers, use of short channels is called for. However, this situation may only be true in developed countries. In most developing countries, poor infrastructure and lack of cold storage facilities has meant quality of perishable products is compromised and most of the produce goes to waste. The other alternative is to distribute those products that don’t meet export standards locally in the domestic market instead of destroying.

Producer or firm characteristics will also determine channel structure. Among the important factors include size of the firm, length of time in business and market coverage desired. The market coverage desired by the firm may either be intensive or exclusive. Exclusive distribution will involve severely limiting the number of intermediaries handling the companies’ products. This will involve exclusive dealing arrangements in which resellers agree not to carry competing brands (Stanton, 1994). In this case, short distribution channels will normally be favoured. Intensive distribution on the other hand involves placing products in as many outlets as possible. Thus, when consumers require a great deal of location convenience, it is important to offer great intensity of distribution. Long distribution channels will be selected.
Firm size is also a major determinant of distribution channel structure. Therefore, small companies with limited resources in a competitive industry will normally delegate distribution function to enterprises that specialize in these functions. The case of small scale flower growers selling their produce to larger operators is a typical example. Through such delegation, the smaller firm is able to lower its costs and therefore improve its competitive position. Eventually, however, reintegration of this function may be warranted as the firm’s output increases or technology changes because the firm may find itself capable of performing them at an optimum scale.

The length of time in business of a firm may also determine the nature of its distribution channel. However, this may depend on whether the intermediaries will be willing to assume the responsibility from the new company. The latter may lack the power or the ability to convince the intermediary to carry out its product. On the other hand, for old companies, established in the market, short distribution channels will normally be established. (Kotler, 2003).

Among market characteristic, that are likely to affect channel choice decisions include; concentration of consumers, number of customers and customer’s order sizes. In the case of cut flowers 90% of the produce is exported abroad. Due to advances in technology and transport system, the issue of customers being geographically dispersed does not pose such a serious problem as. Despite the distance, direct channels can be used. (Whitaker, and Kolavalli, 2004)
Focusing on environmental characteristics, the number of competitors and easy of entry or exit of producers are critical factors that are likely to affect channel selection. Brady, (1978) recommends that where an industry is characterized by ease of entry and exit, long chains of distribution will be suitable. Conversely, in cases where entry and exit is limited, short channels may be selected. The cut flower industry is a capital intensive venture hence the players ability to enter or exit it will depend on the resources at their disposal.

Competitive behaviour may also influence channel selection decisions. If firms already established in the market have integrated channels, an entrant into the market may wish to have one too. In this way, entrants signal to customers that they are committed to serving the market and are willing to dedicate resources to do so e.g. by supplying value-added products. Hence, competitors will imitate the establishments of subsidiaries in each other’s markets, (Calvet, 1981).

In summary, literature indicates a theoretical framework of distribution channel selection depends on many factors. For the purpose of this study, investigation will be carried out to determine whether selection between direct and indirect channels depends on the factors bellow:

i) The length of time the firm has been in business.
ii) The number of varieties within the firm’s product line.
iii) Infrastructure available
iv) The profit margin expected by using a particular channel.
v) Competitive behavior of industry players.
vi) The regularity of demand for the firm’s product.
vii) The costs incurred by using a particular channel of distribution.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 METHODOLOGY

This chapter describes how the study was designed and conducted. It covers the study design, target population, sampling design, and data collection methods. Data analysis method used to analyze the data has also been presented.

3.1 RESEARCH DESIGN

As defined by Kothari (2000), a research design is the arrangement of conditions for the collection and analysis of data in a manner that aims at combining relevance to the research purpose and economy in procedure. It is a conceptual structure within which research is conducted. The design constitutes the blueprint for the collection, measurement, and analysis of data. This study was designed as a study of descriptive nature, i.e. concerned with either determining the frequency with which something occurs or relationship between variables (Churchill, 1996). The researcher employed both desk research and field survey. The study aimed at establishing factors that influence the choice of distribution channels in the Kenyan cut flower industry and their relative importance. The study focused on flower exporters who are responsible for marketing and distributing the cut flowers.
3.1.1 Desk research

Reviewing of literature from various sources was done, i.e from the Internet, publications done by scholars in this field, relevant Marketing text books and journals which served as inputs to through out my research.

3.1.2 Field survey

This is the phase in which data was collected from 50 flower exporters. The purpose of this part was to obtain from the field data that, when analyzed and used together with the literature, helped the researcher to arrive to conclusions that can be generalized (Graziano & Raulin, 1993).

3.2. TARGET POPULATION

The population of interest consisted of flower exporters who are registered with the Fresh Produce Exporters Association of Kenya (FPEAK) and who have offices in Nairobi.

FPEAK dates back to 1975 when the horticultural industry (in extension floriculture) was barely noticeable. It has a membership of about 190 active members. The total of flower exporting firms is 101 with 84 firms based in Nairobi and its environs. This is 83% of all exporting firms. A list of registered members was obtained from FPEAK's website and a listing of their members in their newsletter.
3.3 SAMPLING DESIGN

From the list of 84 flower exporters, a sample of 50 firms was selected using the simple random. This location was chosen because most of the exporters have offices here; hence data collection was conducted successfully.

3.4 DATA COLLECTION METHODS

The study made use of primary data that was collected from 50 flower exporters through a questionnaire developed specifically for meeting the objectives of this study (see appendix). It was administered by the researcher and one assistant.

The questionnaire’s aim was to establish the factors that affect the Choice of Distribution Channels based on the following variables; infrastructure, profit margin expected, Competitive behavior of industry players, regularity of demand for the firm’s product, length of time the firm has been in business, the number of varieties within the firm’s product line, and the costs incurred by using a particular channel of distribution. Apart from this, the questionnaire deduced the relative importance of the above factors.

Likert scale type of questions was used to capture data of judgmental nature. In gathering data, both open and close ended questions were included, and the phrase ‘others (specify)’ was used to avoid limiting the respondent on the possible responses.
3.5. DATA ANALYSIS

The data collected in this study was edited, summarized, tabulated, and quantitatively analyzed using statistical package for social sciences (SPSS). This statistical package was chosen because it is one of the most widely available and powerful statistical software packages in the market. It covers a broad range of statistical procedures that allow you to summarize data (e.g., compute means and standard deviations), determine whether there are significant differences between groups (e.g., t-tests, analysis of variance), examine relationships among variables (e.g., correlation, multiple regression), and graph results (e.g., bar charts, line graphs).

The coded data was then fed into the system to generate tables, frequencies and graphs that were used at arriving to the conclusions. Chi-square ($\chi^2$) tests was used to test the hypotheses. This entailed testing for independence/ significant relationships from the set hypothesis.
CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.0 INTRODUCTION TO DATA ANALYSIS

This chapter is divided into two main sections related to the objectives of the study. The first section seeks to analyze the general information about flower exporters selected and factors that lead to their Choice of a particular distribution channel. The second section seeks to establish the relative importance of the choice made.

Of the two sections of this chapter, the first gives a qualitative analysis of the data collected and the second deals with quantitative analysis which includes testing of the hypotheses. The researcher used Statistical Package for Social Sciences (SPSS) for quantitative data analysis.

4.1 GENERAL INFORMATION ON THE FLOWER EXPORTERS

Table 4.1: Length of time in business

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 - 10 years</td>
<td>25</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>11 - 20 years</td>
<td>19</td>
<td>38.0</td>
<td>88.0</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>6</td>
<td>12.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The respondents were asked to state the length of time they have been doing business so to determine the age of the firm. The findings are as summarized in the table above. This table shows that there is a mix of different ages of firms in the sample, with the most frequent being those that have been practicing for between 6 and 10 years.

Table 4.2: Hectares of land under flowers

<table>
<thead>
<tr>
<th>Hectares</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 20 h.a</td>
<td>32</td>
<td>64.0</td>
<td>64.0</td>
</tr>
<tr>
<td>21 - 50 h.a</td>
<td>11</td>
<td>22.0</td>
<td>86.0</td>
</tr>
<tr>
<td>51 - 100 h.a</td>
<td>4</td>
<td>8.0</td>
<td>94.0</td>
</tr>
<tr>
<td>More than 100 h.a</td>
<td>3</td>
<td>6.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 shows that only 6% of the sample population grows flowers on more than 100 hectares. This is due to the fact that the industry is capital intensive, requires specialized equipment and skilled man-power to thrive. For this reason, most players in the market (86%) prefer to work on smaller hectares given that they are still in the growth stage of their businesses and their financial resources are limited.
The results above indicate that the rose flower is the most popular export among the respondents. According to them, this variety is more profitable since there is high demand for it especially if it is large-budded or a sweet-heart breed. This explains why the other varieties are not being exported on a larger scale as compared to the roses. The eminent danger is that growers will concentrate so much on the roses and loose focus on product diversification thus reducing their competitiveness among other global players.
Table 4.3: Current economic environment

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very favorable</td>
<td>46</td>
<td>92.0</td>
<td>92.0</td>
</tr>
<tr>
<td>Fairly favorable</td>
<td>4</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

It is evident that flower exporters are enjoying the conducive economic environment. The government has been very supportive in providing various tax exemptions and financial incentives to attract investments. It is unfortunate that one respondent did not give a response to this question. Table 4.3 clearly shows this.

Table 4.4: Qualities of suppliers

<table>
<thead>
<tr>
<th>Quality</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good reputation</td>
<td>36</td>
<td>72.0</td>
<td>72.0</td>
</tr>
<tr>
<td>Continuous supply</td>
<td>8</td>
<td>16.0</td>
<td>88.0</td>
</tr>
<tr>
<td>High quality</td>
<td>6</td>
<td>12.0</td>
<td>100.0</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the table above, it was unanimously agreed that suppliers should have a good reputation and have a continuous supply of high quality products. The rating stood at 72%, 16% and 12% respectively.
Figure 4.2 shows that majority of the sample population sends their produce directly to the auctions. Other outlets used in terms of profitability include Supermarkets at 22%, Wholesalers at 16% and agents at 4%.

Table 4.5: Nature of demand for firm's products

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>13</td>
<td>26.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Seasonal</td>
<td>37</td>
<td>74.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the study, 74% of the sample population confirmed that demand for their products is on seasonal basis in-line with the production patterns in Western
Europe. The respondents explained that exports are generally highest over the November to May period, with specific peaks in market demand associated with Valentines Day (in February), Easter (March/April), Mothers Day (in May), and Christmas (in December). During winter months, local and regional supplies in Europe are lower or based on expensive artificial heating and lighting systems.

The respondents unanimously agreed that exports are lowest in June to August due to availability of low cost supplies within Europe and some discrimination against imports at that time into the Dutch auction. For this reason as depicted in figure 2.2 above, exporters are pursuing alternative marketing arrangement i.e. 12% have moved to supplying directly to supermarkets to achieve year round sales.

Table 4. 6: Infrastructure problems

Pressing logistic problem in the industry

<table>
<thead>
<tr>
<th>Poor roads that link to the farm</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From table 4.6, the major problem as far as infrastructure is concerned is the absence of good roads from the farms to the airports. This fact has been confirmed by 100% of the respondents. The other problems listed were considered to be insignificant. These are rising freight cost coupled with limited
air routes, and the problem of lack of cold chain transport were considered to be insignificant.

Table 4.7: View on competition in the cut flower industry

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely stiff</td>
<td>46</td>
<td>92.0</td>
<td>92.0</td>
</tr>
<tr>
<td>Stiff</td>
<td>4</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8: Competitors' Advantage

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior quality of flowers</td>
<td>35</td>
<td>70.0</td>
<td>70.0</td>
</tr>
<tr>
<td>Producing various varieties</td>
<td>14</td>
<td>28.0</td>
<td>98.0</td>
</tr>
<tr>
<td>Cheaper transport</td>
<td>1</td>
<td>2.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Tables 4.7 and 4.8 above depicts that there is extremely stiff competition among operators especially from their counter parts in the developed countries. With advanced technology, competitors abroad produce finer quality of flowers in a wide range of varieties. They are further favored by the fact that they are closer to markets such as the auctions hence making their transportation charges minimal.
Table 4.9: Difficulty of dealing with auction markets

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight cost</td>
<td>3</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Fluctuating prices</td>
<td>9</td>
<td>18.0</td>
<td>24.0</td>
</tr>
<tr>
<td>High quality standards</td>
<td>33</td>
<td>66.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Constant supply of required volumes</td>
<td>5</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.9 depicts the shaky position of exporters at the auctions. They are faced with the daunting task of maintaining high quality standards as this is a major requirement in the European markets. 66% of the respondents proved this to be true. The other major difficulty is fluctuating prices of products sent at 18%, followed by constant supply of required volumes. The issue of pricing means that the client has no control of determining how much he will sell his products. This makes us question the security of these exporters to the auction market.

Table 4.10: Difficulty of dealing with supermarkets

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strict quality requirements</td>
<td>43</td>
<td>86.0</td>
<td>86.0</td>
</tr>
<tr>
<td>Last minute orders</td>
<td>2</td>
<td>4.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Requirement of a varied product mix</td>
<td>5</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
From table 4.10, we can see that 86% of the supermarket suppliers confirmed that, there are high quality standards for their products and they prefer to deal with suppliers who have a varied product mix. The problem of last minute orders and late payments does not seem to be a big issue for suppliers in the country.

Table 4.11: Relative importance of factors in selecting a distribution channel arrangement.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Very Important (4)</th>
<th>Fairly Important (3)</th>
<th>Somewhat Important (2)</th>
<th>Not Important (1)</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) Requirements of distributors</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
</tr>
<tr>
<td>ii.) Expected profit margin</td>
<td>40</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>3.74</td>
</tr>
<tr>
<td>iii.) Infrastructure</td>
<td>36</td>
<td>9</td>
<td>5</td>
<td>-</td>
<td>3.62</td>
</tr>
<tr>
<td>iv.) Availability of flights</td>
<td>30</td>
<td>11</td>
<td>6</td>
<td>3</td>
<td>3.36</td>
</tr>
<tr>
<td>v.) Economic conditions</td>
<td>19</td>
<td>17</td>
<td>12</td>
<td>2</td>
<td>3.30</td>
</tr>
<tr>
<td>vi.) Regularity of purchases made</td>
<td>24</td>
<td>15</td>
<td>8</td>
<td>3</td>
<td>3.20</td>
</tr>
<tr>
<td>vii.) Freight Cost</td>
<td>25</td>
<td>13</td>
<td>8</td>
<td>4</td>
<td>3.18</td>
</tr>
<tr>
<td>viii.) Product mix</td>
<td>10</td>
<td>12</td>
<td>19</td>
<td>9</td>
<td>3.02</td>
</tr>
<tr>
<td>ix.) Competitive behavior of exporters</td>
<td>17</td>
<td>14</td>
<td>10</td>
<td>9</td>
<td>2.74</td>
</tr>
</tbody>
</table>

The relative importances of various factors influencing the choice of a particular distribution channel are presented in table 4.11 above. On ranking the average
ratings, it is evident that flower exporters consider distributor requirements, expected profit margin and availability of infrastructure to be the most important factors. On the other hand, the product mix and competitive behavior of other exporters was ranked the lowest among other factors listed.

### 4.4 HYPOTHESIS TESTING

**Hypothesis One:**

$H_0$: The firm age (years of operation) is not significantly related to the opinion on channel profitability (direct versus indirect channel)

$H_1$: The firm age (years of operation) is significantly related to the opinion on channel profitability (direct versus indirect channel)

To test this hypothesis, a cross tabulation was done between the Variable years of operation and variable which channel is more profitable. The chi square test was performed using SPSS and the test results are as shown in the table below.

<table>
<thead>
<tr>
<th>Table 4.12: Chi-square results for hypothesis 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>
From the table above, the calculated Chi square $\chi^2$ value is 4.938, less than the tabulated Chi square value at 5% level of significance and 2 degrees of freedom, which is 5.991. For this reason, the null hypothesis is not rejected, meaning that we do not have enough statistical evidence that significant relationship exists between the firm age and the opinion on whether it is the direct channel or the indirect channel that is more profitable.

**Hypothesis Two:**

$H_0$: The farm size (Hectarage) is not significantly related to the opinion on channel profitability (direct versus indirect channel)

$H_1$: The firm size (Hectarage) is significantly related to the opinion on channel profitability (direct versus indirect channel)

To test this hypothesis, a cross tabulation was done between the Variable Hectarage and variable which channel is more profitable. The chi square test was performed using SPSS and the test results are as shown in the table below.

**Table 4.13: Chi-square results for hypothesis 2**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.201</td>
<td>3</td>
<td>.027</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.749</td>
<td>3</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>7.447</td>
<td>1</td>
<td>.006</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The test results give a calculated Chi square $\chi^2$ value of 9.201. this is higher than 7.815, the tabulated chi square value at 5% level of significance with 3 degrees of freedom. Statistically, the results means that the null hypothesis is rejected, thus leading to the conclusion that there is enough statistical evidence that the farm size is significantly related to the opinion on which channel is more profitable.

**Hypothesis Three:**

**H₀:** The farm size (Hectarage) is not significantly related to the having of Export marketing office abroad.

**H₁:** The firm size (Hectarage) is significantly related to the having of Export marketing office abroad.

To test this hypothesis, a cross tabulation was done between the Variable Hectarage and variable do you have an export marketing office abroad. The chi square test was performed using SPSS and the test results are as shown in the table below.

**Table 4.14: Chi-square results for hypothesis 3**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>13.860</td>
<td>3</td>
<td>.003</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.509</td>
<td>3</td>
<td>.023</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7.642</td>
<td>1</td>
<td>.006</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The test yields a 13.86 chi square $\chi^2$ value, which is higher than the 7.815 tabulated Chi square value at 5% level of significance and 3 degrees of freedom. This leads to a statistical decision of rejecting the null hypothesis, thus concluding that the firm size (Hectarage) is significantly related to the having an export marketing office abroad.

4.5: SUMMARY OF DATA ANALYSIS

The cut flower industry in the country has been a success story due to the fact that there has been favorable economic conditions facilitated by the government, this is confirmed by 92% of the respondents (table 4.3). From deductions done, most of players in the cut flower business have been in operation between 10 – 20 years. The rose flower is the most popular variety exported; this is due to the fact that it fetches higher prices as compared to other varieties.

Qualities of a supplier to a large extent have a bearing on the kind of distribution channel to be chosen. Suppliers should have a good reputation in the market so as to maximize their competitive advantage. Couple with this he should have a continuous supply of high quality products. This is a deduction from table 4.4.

The infrastructure in place needs to be improved so as to serve cut flower operators better. From table 4.6, the major problem is the absence of good roads from the farms to the airports. This fact has been confirmed by 100% of the respondents. The other problems highlighted in the questionnaire such as rising
freight cost, limited air routes and lack of cold chain transport was not a big issue. The respondents have invested in the state of the art cold rooms and refrigerated trucks that ensure quality loss between harvest and consumption is minimal.

Figure 2.2 shows that 58% of the sample population sends its produce to the auction markets. The other channel outlets such as the supermarkets, wholesalers and agents are not as popular due to their strict requirements in terms of quality and varied product mix. Despite majority of the exporters using the auction as a channel of distribution, they are faced by problems such as fluctuating prices, maintaining a continuous supply of volumes especially during the low season, and the most challenging problem was that of meeting high quality standards of products given that our infrastructure; including cold chain management is wanting.

Supermarkets have attracted 22% of our sample population. Suppliers are enjoying competitive prices fetched in these markets despite the fact that they need to abide to the strict quality requirements and at the same time offer a varied product mix. The lucrative nature of this distribution channel seems to override the other problems highlighted. This is depicted in table 4.10.

Respondents rated the degree of competition as being extremely stiff at 90% as shown in Table 4.7. The competition is not just from within but also from
operators in the developed countries. With advanced technology, competitors abroad produce finer quality of flowers in a wide range of varieties. They are further favored by the fact that they are closer to markets such as the auctions hence they incur lower transport costs as compared to their counter-parts in Kenya. Table 4.8.

The relative importance of various factors influencing the choice of a particular distribution channel arrangement have been presented in table 4.11 above. From the analysis done, it is evident that flower exporters consider distributor requirements, expected profit margin and availability of infrastructure to be the most important factors before they make a decision on channel choice. The rest of other listed factors were still considered to be essential as they complement those mentioned above.
CHAPTER FIVE
SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND
RECOMMENDATIONS

5.0 INTRODUCTION
While the previous chapter dealt with the presentation and discussion of the research findings, together with the testing of hypotheses, this chapter presents the summary and conclusions of the study, together with recommendations that may be useful to the stakeholders in the cut-flower industry. Moreover, the suggested areas for further research are given so as to explore more and shed more light on issues of marketing, competition, and distribution of cut-flowers.

5.1 SUMMARY OF MAJOR FINDINGS
Flower exporters in the country need to actively get involved in product diversification within the market in response to consumer demand for greater variety, both in terms of flower types, colours, and other aspects of appearance. From a global perspective, there are more than 125 varieties of cut flowers grown commercially with additional varieties being added to the market every year. In the country, we have approximately 30 varieties with the rose flower topping the list in terms of production. This implies that growers have specialized in this variety hence rendering them less competitive on the global market since their variety is limited. In order for Kenyan exporters to retain their competitiveness in rose production they need to develop specialized facilities for large budded or sweetheart roses and offer value added production to supermarkets. Without
pursuing these paths, exporters in the country will loose more of their rose market to competitors.

There has been a growing importance of supermarket chains particularly in Europe. This structural shift has weakened market power and market share of other cut-flower channels of distribution such as the auctions, wholesalers and agents. Supermarkets are interested in flowers grown in Africa because they are inexpensive and because growers are ready to accept a set price. To the growers the arrangement is attractive because supermarkets buy large quantities at prearranged prices. The prices fetched are quite competitive and therefore exporters in the country should strive to get a bigger share of this market by meeting the set requirements.

The availability of freight and cost of freight have been an issue in the cut flower industry especially for operators who have small scale enterprises. Due to limited cargo flights on some routes like Japan, have resulted in under exploitation of these markets. For larger exporters, problems with air transport have driven them to gain control over the distribution process through joint ventures with freight forwarders. This notwithstanding, freight costs have been on the increase on yearly basis due to increase in oil prices.
Coupled with the above, the infrastructure needs to be improved. The poor state of roads that link farms to the main roads are in bad state and they need to be improved. The roads to the airports too need to be refurbished as well.

5.2 ANSWERS TO RESEARCH QUESTIONS

It was found that the factors that influence selection of distribution channels include; fulfillment of distributor requirements for instance, does the exporter meet quality standards set or does the exporter meet certain environmental dimensions of cut flower production. Other factors include infrastructure, expected profit margin, product mix, freight cost, availability of flights, economic conditions, competitive behavior and regularity of purchases made. The listed factors were analyzed and ranked according to their degree of importance. The factor topping the list was whether the exporter meets the requirements set by the distributor. In order of importance the other factors include; expected profit margin, infrastructure, availability of flight, prevailing economic conditions, regularity of purchases made, freight cost, product mix and competitive behavior of other exporters. This is shown in table 4.3.

5.3 CONCLUSION

Logistic arrangements, Markets, consumer preferences, technology and competition are continually changing thus requiring operators in the flower industry to continuously adapt and be innovative in order to guarantee their competitiveness and sustainability. In this respect the government and players in
the flower industry should work more closely to overcome the problems experienced in channels of distribution as revealed by this study.

5.4 RECOMMENDATIONS

1. The government should intervene and solve the infrastructure problems that are facing flower exporters. One of the major problem as highlighted in this study is that of poor roads linking to the farms. These bad roads contribute to reduction of the flower quality as it goes through the distribution channel.

2. Flower exporters should venture into supermarkets. This study has shown that majority of exporters send their produce to the auctions and yet they stand to gain more through supermarkets.

3. High freight cost is a general problem to players in the industry. They should seriously consider forming alliances, either casually or formally so that they can be able to negotiate discounted airline cargo rates by combining their shipments in order to benefit from discounts awarded on volume rates.

4. The private sector and government agencies should strive to expand existing markets and penetrate new ones through better cooperation.

5. In order to compete effectively, players in the industry should not only rely on the rose flower. They should diversify into other varieties such that they can be at par with their counterparts in Europe.
5.5 LIMITATION OF THE STUDY

The major limitation encountered was that most flower farms were situated far from the main road, hence it was a problem accessing them. I was forced to hire private transport in some cases and at the end of the exercise I ended up spending more money than I had actually budgeted for.

5.6 SUGGESTION FOR FURTHER STUDY

A study may need to be carried out to compare the choice of distribution channels in large-scale flower firms visa viz small-scale flower enterprises. This would possibly lead to more conclusive results regarding the channel structure decisions of firms.
REFERENCES


George Staby and Michael Reid, (2005), Improving the Cold Chain for Cut Flowers and Potted Plants, Perishable Research Organization, California


Luciano Van de Brook and Evaristo M. Neves,(2004) Production, Marketing and Distribution of Cut Flowers in the United States and Brazil. University of Florida


http://www.fpeak.org

http://www.hcda.or.ke

http://www.kenyaflowercouncil.co.ke

http://www.kenyaweb.com/horticultural/flowers.html
APPENDICES

APPENDIX I: WORK PLAN

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2006 – August 2006</td>
<td>Writing of the proposal</td>
</tr>
<tr>
<td>August 2006</td>
<td>Presenting the research proposal</td>
</tr>
<tr>
<td>Sept 2006 - Oct 2006</td>
<td>Data collection</td>
</tr>
<tr>
<td>October 2006</td>
<td>Data analysis</td>
</tr>
<tr>
<td>October 2006</td>
<td>Updating project proposal with findings</td>
</tr>
</tbody>
</table>
## APPENDIX II: BUDGET

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Proposal writing</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Stationery</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Internet</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Typing/Binding</td>
<td>2,000.00</td>
</tr>
<tr>
<td>2. Subsistence: @ Kshs 500 per day for 30 days</td>
<td>15,000.00</td>
</tr>
<tr>
<td>3. Research Assistant: @ kshs 500 per day for 30 days</td>
<td>15,000.00</td>
</tr>
<tr>
<td>4. Project Analysis and Production</td>
<td>7,000.00</td>
</tr>
<tr>
<td>Computer services</td>
<td>3,000.00</td>
</tr>
<tr>
<td>Photocopying/Binding</td>
<td>4,000.00</td>
</tr>
<tr>
<td>5. Contingency</td>
<td>5,000.00</td>
</tr>
<tr>
<td></td>
<td><strong>47,000.00</strong></td>
</tr>
</tbody>
</table>
APPENDIX III: QUESTIONNAIRE

(Please answer the following questions by filling the blank spaces or placing a tick in the appropriate box [ ].)

1. Name of your firm? ________________________________

2. For how many years have you been in operation? __________________

3. What is the acreage of your firm? ________________________________

4. Please list the varieties of flowers you export?

   _________________________________________________________________

   _________________________________________________________________

   _________________________________________________________________

5. To what extent have the current economic conditions impacted on your firm’s distribution activities?

   Very favorable [ ]

   Fairly favorable [ ]

   Unfavorable [ ]

   Very unfavorable [ ]

6. How would you describe the strength of your firm’s financial resources?

   Very strong [ ]

   Fairly strong [ ]

   Weak [ ]

   Very weak [ ]
6. Which of the following categories describe the nature of demand for your firm’s products?

- Regular [ ]
- Seasonal [ ]
- Irregular [ ]
- Others (Please specify) _______________________________________________________________________

_________________________________________________________________________________________

_________________________________________________________________________________________

_________________________________________________________________________________________

7. What is your view on competition in the cut flower industry?

- Extremely stiff [ ]
- Stiff [ ]
- Little competition [ ]
- No competition [ ]

8. Which of the following gives your competitors a better standing against you?

- Superior quality of flowers [ ]
- Producing various varieties [ ]
- Closeness to the market [ ]
- Others (Please specify) _______________________________________________________________________

_________________________________________________________________________________________
9. Which channels of distribution do you use to sell your products?
(You may tick more than one choice)

- Auctions [ ]
- Agents [ ]
- Wholesalers [ ]
- Retailers (Supermarkets) [ ]
- Others (Please specify) [ ]

10. Which qualities are the most important required of a supplier?

- Good reputation [ ]
- Continuous supply [ ]
- High quality products [ ]

11. Which of the following best describes the difficulties in dealing with supermarkets?

- High quality standards [ ]
- Late payments [ ]
Last minute orders

Requirement for a varied product mix

Others (Please specify)

12. Which of the following best describes the difficulties of dealing with the auctions?

Freight cost

Fluctuating prices

High quality standards

Continuous supply of required volumes

Others (Please specify)

13. Which of the following best describes the cost of airfreight?

Very Expensive

Expensive

Cheap

Extremely cheap
14. Which of the following infrastructure problems are more pressing in the industry?

- Poor roads that link to the farms
- Lack of cold chain transport
- Limited air routes to the market
- Rising freight costs

15. How would you rate the importance of the following factors in selecting a particular distribution arrangement? Please tick where appropriate?

<table>
<thead>
<tr>
<th>Factors</th>
<th>Very important</th>
<th>Fairly important</th>
<th>Somewhat important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) Requirements of distributors</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>ii.) Infrastructure</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>iii.) Availability of flights</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>iv.) Product mix</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>vi.) Expected profit margin</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>vii.) Economic conditions</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>viii.) Regularity of purchases made</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>ix.) Competitive behavior of exporters</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

THANK YOU FOR YOUR CO-OPERATION.
APPENDIX IV: LIST OF CUT FLOWER GROWERS

Aquilla Development Co. Ltd
Bawan Roses Ltd
Bobs Harries
Carnation Plants Ltd
Celinico Flowers
Charm Flowers Ltd
Enkasiti Flowers Ltd
Everflora Ltd
Finlay Flowers Ltd
Forten Flowers
Gatoka Ltd
Highflor Growers Ltd
Homegrown Kenya Ltd
Karen Roses Ltd
Kijabe Flowers Ltd
Karia Roses Ltd
Kinangop Flower Growers Limited
Kitengela Blooms
Lauren International Flowers Ltd
Liki River Farm
Magana Flowers Ltd
Mweiga Blooms
Mumy Flowers Ltd
Nature Grown Ltd
North Lake Nurseries
Nini Ltd
Ngong Roses

Primarosa Flowers Ltd
Regie Flowers Ltd
Pollen Limited
Redlands Roses
River Dale Blooms
Shalimar Flowers (K) Ltd
Sian Group Ltd
Simbi Roses
Sophia Roses Ltd
Tambuzi Ltd
Terra Fleur Ltd
Thara Orchards Ltd
Tropiflora Ltd
Waridi Ltd
Wetfarm Ltd
Wilmar Agro Ltd
Oserian Development Company

P.J Dave Flower Ltd
Penta Flowers

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