A SURVEY OF MARKETING MIX PRACTICES APPLIED BY SMALLHOLDER HORTICULTURE FARMERS: A CASE OF SELECTED FARMERS IN MANYATTA DIVISION, EMBU DISTRICT

BY

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A Survey of marketing mix practices applied
DECLARATION

I hereby declare that this Research project is my original work and has not been presented for a degree in any other University.

Signature............................................................ Date. 23/3/2007

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D53/OL/0558/02

This research project has been submitted to the School of Business for examination with my approval as the university supervisor.

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DEDICATION

This research project is dedicated to the following; my wife Sarah, lovely son Collins, lovely daughter Brenda, Aunt Brenda/Collins, Samson M’Iirambu and my late mother Miriam Rigeria for their enormous support they continuously accorded me throughout the period of my studies and project work.
ACKNOWLEDGEMENT

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<td>CBI</td>
<td>Centre for the Promotion of Imports from Developing Countries</td>
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<td>SRA</td>
<td>Strategy for Revitalizing Agriculture</td>
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<td>ERS</td>
<td>Economic Recovery Strategy for Wealth and Employment</td>
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<tr>
<td>NALEP</td>
<td>National Agricultural and Livestock Extension Policy</td>
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ABSTRACT

Horticulture is an important component of agricultural sector in Kenya and it has grown considerably despite the general decline in performance of most of other sub sectors. It has received a great deal of attention from researchers, government and donors. The purpose of the study was to explore the marketing practices smallholder horticulture farmers’ use. This will find out how they use the marketing mix variables because farmers often complain of lack of market and exploitation by middlemen even when there is demand for their produce.

The target population of interest in this study consisted of 85 smallholder horticultural farmers from Manyatta Division Embu District who were selected through stratified random sampling. Sampling frame was obtained from DAEO’s office Manyatta division. There were two strata of the farmers (those belonging to marketing groups and non-group based). Both primary and secondary data were collected. Data was analyzed using descriptive statistics with the help of Statistical Package for Social Sciences (SPSS). Descriptive tools were used in actual analysis and data presented in form of charts, tables and percentages.

The study established that the small holder farmers grew a variety of crops which they sold locally and few exported. The choice of the crops was based on the demand of the buyers, financial resources, profitability, government policy and availability of labour. In addition, the findings suggested that there are crops that the farmers did not grow but marketed. Smallholder farmers packed their products for the market in sacks, cartons crates and paper bags. Prevalent methods of attracting buyers were word of mouth, usage of posters and leaflets, events and contests respectively, while others used seminars and workshops. They considered the following factors in their choice of promotional tools to use; cost of the tools, speed, and availability while some of the respondents cited reach to buyers.

Source of the customers was the neighborhood, Nairobi, Embu Town while others came from other towns. The study also established that the produce reached the customers (buyers) by being transported by the buyers at their own cost and the buyer collected the produce from the farm respectively, while others indicated that they transported the produce to the buyer at the buyer’s cost. The farmers mainly collected marketing information themselves. Smallholder farmers sought market information annually and seasonally on competition, customer needs, and price while others collected information on new markets.

The produce prices were determined by the total cost and adding a profit margin. Farmers gave discount to their customers depending on volumes bought. The farmers identified lack of marketing information on prices and market opportunities, broker’s exploitation, competition, low prices and lack of transport in the market as the main constraints they face.
The study recommends that there is need to have positive word of mouth, introduce other forms of promotion and seek extension support.

The study recommends the following for further research: efficiency of marketing practices applied by small holder horticultural farmers, research on the number of farmers, hectarage and production required for a marketing group to be economically viable, research on the market practices used by large scale horticultural farmers and similar study can be carried out in other provinces in Kenya to compare the findings.
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the study

Horticulture is an important component of the agricultural sector in Kenya. The horticultural industry has grown considerably despite the general decline in performance of most other agricultural sectors. Horticultural export produce increased from 49,000 tonnes in 1990 to 133,200 tonnes in 2002, making the industry the second most important foreign exchange earner after tea. Foreign exchange earnings from both fresh and processed horticultural products have been growing at an average of 20 per cent per annum. In addition, incomes from the horticultural products grew from Ksh 2.5 billion in 1992 to Ksh 26.7 billion in 2002. The industry provides employment to over one million people who are engaged in production, processing and marketing of horticultural products, directly and indirectly (IPAR, 2005).

The horticulture sub-sector was estimated to be worth Ksh. 87 billion in 2003 with volume of 3.8 million metric tones. Ksh 33 billion came from exports and Ksh 54 billion accounted by domestic market (Kirwa, 2005). While the industry continues to grow it faces mounting challenges. Kenya faces competition from other African countries particularly Morocco, Senegal and Egypt who are quickly gaining export market share in Europe. According to ministry of agriculture strategic plan 2005 to 2009 (GOK 2005) the industry is expected to grow at 4.3% p.a. in real terms between 2005 and 2008 and is worth noting that the industry can perform even better by growing at over 7% p.a if appropriate and timely interventions are made.
The smallholder horticulture sub-sector accounts for 75% of total agricultural production, continues to employ more than 1.8 million people and production equivalent to KSh 87 million. Kenya horticultural production has experienced growth since 1960, however, producer incentives are poor (Nyoro, 1993), small holders organize production without knowing buyers' needs, the result of which they are left with very few buyers. Even when farmers are organized into groups and contract a buyer, contract rules are often violated. Broker mark up is considered excessive and they exploit farmers.

Nyoro et al (2004) provided a relatively detailed assessment of Kenya’s horticultural marketing system from the farm up to the wholesale level. He has also identified the range of actors operating at the retail level, and has addressed the small but emerging role of supermarkets. In so doing, it has attempted to place these new entrants in the context of the broader horticulture sub-sector marketing system. The challenge now is to understand in more detail the behavior and performance of the horticulture sub-sector marketing system, and how it can be improved to bring down the cost to a majority of consumers yet present better opportunities for growers. An additional and important question is to understand how the marketing system relates to and might be affected by emerging supermarkets. Specifically, national policy makers and municipal authorities need to understand the bottlenecks that, if relieved, could substantially reduce costs and allow this system to compete more effectively with what might be an emerging parallel and more "modern" system driven by supermarkets.
If the process of identifying and relieving key bottlenecks in the marketing system is successful, then it will be possible to avoid creating a dualistic system and the ills of high costs and poor options for both consumers and farmers.

A study on domestic horticulture production and marketing found out that market value chains are becoming important to consumers and hold the key market opportunities for segments of smallholder farming community (Stiven, 1996; Mwendo, 2004). The report recommended that major investment on market infrastructure, facilitating services, legal and regulatory environment be undertaken. The report also predicted that the next 10-year public policy would be on how stallholder horticulture farmers can be helped.

Another study by Kimani (1998) on marketing of small-scale farmers in Ndia Division in Kirinyaga District pointed out that studies on marketing and smallholder farmers cannot be easily generalized for other areas. Agricultural production and marketing by farmers can only be successful if farmers marketing challenges are understood and well addressed by extension workers, researchers and policy makers. Production cannot be complete unless marketing aspects and market development is taken into consideration (NALEP 2005). Marketing challenges can only be addressed when well understood. All this sounds the need for application of marketing mix strategies. The question is how these small-scale horticulture holders use these marketing practices to solve the challenges and exploit opportunities in the growing demand of horticulture produce. These marketing strategies will help farmers understand the needs of customers, develop products to meet them, price their products competitively, collect and analyze market information.
1.1.1 Kenya’s Smallholder Horticultural Sector: An overview

Kenya’s horticultural sector has received a great deal of attention from local and international researchers, government, and donors from pre-colonial period and more so over past two decades, due to the rapid and sustained growth of its export sector (Kimenye 1995, Stevens and Kennan 1999, Dolan et al. 1999, Kamau 2000, Thiru 2000, Harris et al. 2001, Minot and Ngigi 2002).

Estimates of changes in Kenyan smallholders’ share of the fresh horticultural export market vary widely. Most researchers seem to agree that shares were as high as 75% in the early 1990s (Harris 1992). The most optimistic current estimate is by Kenya’s Horticultural Crops Development Authority (HCDA), which places smallholder export market shares at 40% for fruit and 70% for vegetables, implying an overall horticultural share of 55-60%.

Research evidence, however, indicates that the Kenyan smallholder participation in fresh horticultural export markets does not seem warranted. Yet their share does appear to have fallen substantially over the past 10 years, from about 75% to under 50%. In addition, Kenya’s horticultural export sector as a whole faces increasingly stiff competition from other African countries such as Cote d’Ivoire, Morocco, Zimbabwe, South Africa and Cameroon. Kenya’s horticultural export expansion has been aided by the country’s preferential duty-free access to EU markets under the Lome Agreement, which currently runs through 2008. If this agreement is not renewed, or if other developing countries obtain similar benefits, Kenya can expect to face even stiffer competition in these markets (Muendo and Tschirley, 2004).
Furthermore, studies carried out on the horticultural production and marketing pointed out weakness in farmers not able to position themselves to spot and utilize opportunities in the market place (Magori and Dijkstra, 1991).

1.2 Problem Statement
Horticulture produce forms a significant portion of the agricultural output in which it constituted about 70 per cent of the marketed agricultural production. Despite its rapid and sustained growth, horticultural exports remain a small fraction of Kenya’s overall agricultural sector. For the past decade, over 90% of all fruit and vegetable production was consumed domestically, either on-farm or through domestic markets. Despite higher percent growth rates in the export sector, most horticultural products from the smallholder farmer do not reach the market. This is particularly so since the rural population depend on it both as a source of food and income (IPAR, 2005).

Kenyan smallholders who have succeeded in producing for the export market face a daunting set of challenges if they are to maintain their participation in the sector. These challenges are driven by increasing consumer demand for quality. A research on the marketing system carried out by the ministry of agriculture (MOA, 2004) indicates that marketing of horticulture produce continues to be hampered by lack of well-organized marketing system and exploitation by middlemen.

In addition, studies carried out on the horticultural production and marketing pointed out weakness in farmers not able to position themselves to spot and utilize opportunities in
the market place (Magori and Dijkstra, 1991). This study therefore sets out to explore the marketing practices applied by smallholder farmers.

1.3 Research objectives
The general research objective of the study was to determine what marketing practices do small scale horticulture farmers' use. The specific objectives of this study were:

1. To identify the product marketing practices the smallholder horticulture farmers use
2. To determine the promotional marketing practices the smallholder horticulture farmers’ use in promoting their produce.
3. To identify the distribution practices the smallholder horticulture farmers’ use
4. To find out how farmers determine the price for their produce.
5. To determine how smallholder horticulture farmers’ search and use market information.

1.4 Research questions
This study sought to answer the following questions;

1. What product marketing practices do the smallholder horticulture farmers use?
2. What promotional marketing practices do the smallholder horticulture farmers’ use in promoting their produce?
3. Which are the distribution channels used by the small-scale horticulture farmers?
4. How do farmers determine the price for their produce?
5. How do smallholder horticulture farmers’ search and use market information?

1.5 Significance of the study

This study is significant in that:

The information generated will be useful to the smallholder horticulture farmer to appreciate the role marketing plays in their business and apply marketing strategies professionally.

The ministry of agriculture will find the information useful for policy and planning purposes as it relates to smallholder horticultural farmers.

It is envisaged that the study will stimulate market research in horticulture marketing practices especially farm level. In addition, the study will add information to the existing body of knowledge in the area.

1.6 Scope and limitations of the study

Smallholder horticulture farmers were randomly selected and given a questionnaire to fill for identifying specific marketing practices applied and marketing challenges that limit marketing system’s performance, and to identify key research that needs to be done to guide further investments to improve sub-sector performance.

This survey was limited to Manyatta Division of Embu District. The results will reflect marketing practices applied by small horticulture farmers posing danger of not depicting actual situation of smallholder horticulture farmers.
The study was limited to Manyatta Division of Embu District because of high number of smallholder horticulture farmer’s, leading in horticultural production and time limitation to interview all the farmers.

Manyatta Division is one the active horticulture producers and marketers division in Embu District among the others namely Nembure, Kyeni, Runyenjes and Central divisions.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter presents a review literature which has been documented and which relates to the problem to be studied. The chapter documents literature in the following subheadings: marketing mix of horticultural produce, smallholder horticulture in Kenya, nature of smallholder horticultural activities, challenges facing smallholder horticultural farmers, the conceptual framework and summary of the literature review.

2.2 Marketing mix practices
Most individuals and groups do not really grasp or embrace the marketing concept until driven to it by circumstances (Kotler, 1994). These circumstances might include a decline in sales, slow growth, changing buyer patterns, or increasing competition. In horticulture, small horticulture farmers marketing have been driven largely by decline in sales as a result of strict quality and environmental standards by consumers.

2.2.1 Characteristics of Horticultural produce
Horticulture is defined as the science and art of growing fruits, vegetables, flowers and ornamental plants” (Jaffee et al, 1995). Therefore, horticultural marketing can be defined as the human activity directed at satisfying human needs and wants through the exchange process of the above products profitably.

It comprises of all the operations involved in the movement of the above products from the farm to the final consumer. Horticulture crops experience rapid quality deterioration, severely limiting their marketable life as a fresh commodity and the period of time during
which they can be used as raw material for processing. Even under optimal post-harvest conditions, the marketable life of many horticultural crops is only several weeks or even several days.

Seasonality, availability of substitutes /alternative uses of product and perishability, plays a critical role in marketing fresh produce. This causes inelastic supply and demand which farmers cannot influence. Like other agricultural crops horticultural produce have a seasonal production cycle. But unlike storable commodities, fresh produce are generally available in given locations only during their natural production season. Although this production season can be extended by breeding new varieties, using irrigation and by using horticultural techniques such as protective covering (heated green houses) seasonality poses a big problem in marketing. This seasonality nature of horticultural crops causing supply and demand imbalance also brings about the problem of inventory management, processing and marketing segments of the farm to consumer chain. It also leads to shortage of working capital available to handle the bulge in expenses (Austin, 1992).

The concept of quality in fresh vegetables and fruits embodies a multitude of diverse aspects, which are perceived differently at different stages in the marketing chain.

Many produce quality characteristics are difficult and sometimes even impossible to define and agree upon (Melamed, 1993).
It is inevitable that products will be initially judged by the appearance and if no other information is offered consumers will deduce good taste and good internal quality from good visible characteristics (Deters, Alrevensleben and Meier 1985 cited by Kimani 1998) These includes the products colour, uniformity and freedom from blemishes, pests and disease are evaluated against some ideal concepts of that particular product variety (Jensen 1995).

2.2.2 Promotion
Product promotion in horticulture is rare in Africa. It has been argued that sophisticated product promotion largely benefited affiliates of multinational firms and has served to marginalize local firms (Jouet, 1994). The literature on agricultural marketing in Africa is virtually devoid of actual experiences in marketing or merchandising including marketing research and product brand name promotion. This applies to both the public and private sector enterprises (Jaffee, 1995).

Advertising product and brand name promotion are fairly significant in a number of African countries especially Nigeria, South Africa, Zimbabwe, Senegal and Cote d’Ivoire. In Kenya, research in the early 1980’s found that advertising for food and drink products exceeded Ksh 10 million per year and ranked fourth behind transport, personal care and household products in advertising expenditure (Jouet, 1984). Research evidence suggests that in many African countries, the most aggressive product promotion efforts are under taken by affiliate of multinational companies. This can be attributed to their experience, management and to the up market clientele whom they serve.
Local firms appear more inclined to sell non-branded products to institutional buyers or to rely upon longstanding links with retail outlets and chains to distribute their products (Kimani, 1998).

In a market where competition is weak, such as in Kenya, there has been little perceived need to communicate directly to consumer or listen to them. Product promotion is even more important with regard to the export of horticultural products. Brand name reorganization and promotion are prominent features of international trade in fresh horticultural produce. For the most part of Africa, exporters sell their products under somebody else brand. With the expectation of South Africa, nearly all of Africa’s exports of fresh vegetables and fruits are marketed under the brand of a European, America, or Japanese Company (Jaffee 1995). This means African farmers get low prices and demand is low.

All of Kenya’s more than two hundred fresh produce exporters have their own brand name, yet European distributors and consumers recognize few of these indicating opportunities for Kenya exporters to intensively promote their brands. Only South Africa’s Outspan and Cape Brand names (for fruits) are widely recognized in Europe (Jaffee 1995).

2.2.3 Pricing
The forces of supply and demand in the market set prices for most horticultural products. Internationally, most developing countries are price takers and leading export countries are price makers (Austin, 1992). Mendoza and (Rosegrant, 1995) argue that price contain
information crucial to maximizing the returns to production and marketing investments. At planting time, a farmer's planting decision is pegged on expected profits, which invariably hinge on the anticipated prices of the crop or mix of crop that would prevail in the market at the time of sale and on the farmers' interpretation of those prices.

In commodity markets in developed economies, imperfect markets have been found to yield prices that are biased representations of actual supply and demand conditions and the resulting price relationships among markets are weak. Prices have also been established to be rigid in markets characterized as monopolistic or oligopolistic (Bailey and Brorsen, 1989 cited by Kimani, 1998).

Calkins and Wang (1988) found that in the central region of Taiwan traders obtained price information not only from other farmers and marketing agents but also during market transactions from price bulletin boards and in local farmers associations. They supplemented their knowledge through mass media announcements. Distance from vegetable markets restricted the price knowledge needed during market transaction, and is seen that farmers who lacked market information tended to have weaker bargaining power.

Calkins and Wang (1988) found that the average price mark-up depended on the number of intermediaries and also the level of perishability of the product. That is the number of intermediaries increase, the size of the average mark-up decreases. Mellor (1990 cited by Kimani, 1998) suggests that price differences from place to place can be explained by differences in transportation costs and that those from season to season can be explained
by storage costs. The prices are largely determined by the supply and demand situation in the European Union (EU) the dominant supplier of the world market. Access to export price information for processed products is difficult and the main producers in the North America and West Europe largely determine prices.

In some places, the auction method of selling is also used which also fluctuates largely by big margin. According to (Honma, 1991), the Japan market prices of horticultural products are determined by auction even at a price lower than the cost. When the market prices fall steeply subsidies are paid to farmers to avoid severe income losses, making up the difference between price levels. Price level is determined by taking into account past trends in market price, production costs, and economic factors. In Uganda, (Munyiri, 1996) noted that roses -cut flowers are also sold through the auction system in Holland and farmers are faxed the prices achieved on daily basis.

It is important to note that this industry is controlled by market forces in Europe, which the Uganda grower can hardly influence. Flowers are sold mainly at auctions which belong to co-operative societies which have to protect their own interest first.

Inappropriate pricing of agricultural produce have reduced the profitability of market-oriented horticulture, prevented significant gains in horticultural productivity and contributed to the persistence of rural poverty (Munyiri, 1996).
Inappropriate pricing of agricultural produce have reduced the profitability of market- oriented horticulture, prevented significant gains in horticultural productivity and contributed to the persistence of rural poverty (Munyiri, 1996).

2.2.4 Distribution channels for horticultural products

A channel of distribution is the combination of institutions through which a seller markets produce to the user or ultimate consumer. Channels of distribution provide the ultimate consumer with time, place and possession utility (Peter and Donnelly 1991 cited by Kimani, 1998). Thus, an efficient channel is one that delivers the product when and where it is wanted at a minimum total cost.

The major types of horticultural marketing intermediaries include brokers, retailers, merchant middlemen and agents. While the major marketing functions performed in the channels of distribution include buying, selling, sorting, assorting, storage, grading, risk taking, transportation and market research.

Different horticultural products have different channels of distribution. For example French Beans have three channels. Calkins (1998) identified five marketing channels of distribution for soya beans, five for sweet potatoes, four for tomatoes and six for common cabbages. The many different channels exist as a result of differences in organizing at both the consumer and producers ends of trade.
Studies by Calvins and Wang (1988) indicated that the marketing agents ranked their major problems differently due to their different positions in the marketing channel.

It is clear that local assemblers complained most about their weak bargaining power and transport costs. Retailers feared losses due to over stocking. Wholesalers were apprehensive about variation in quality. Both wholesalers and retailers were most concerned with perishability, while Retailers dreaded price fluctuation most.

Horticultural produce in Kenya can be retained on the farm, or marketed through local fresh markets; local processed markets, fresh export markets, or processed export markets. Establishing what proportion of total production flows through each of these channels is hampered by lack of data, especially on processing; These results provide a picture of the relative importance of local and export markets for Kenya’s horticultural sector (TEGEMEO, 2004).

It must be remember that Marketing is fundamentally about providing the correct bundle of benefits to the end user, hence the saying ‘Marketing is not about providing products or services it is essentially about providing changing benefits to the changing needs and demands of the customer’ (Tailor, 2000).

2.2.5 Market Information
Farmers complain of lack of market information on prices and market opportunities and forecasts at farm level and therefore weak bargaining position when it comes to selling to farm gate leading to low and disappointing sales. They lack information on demand at which markets and at what period, horticulture best practices or standards.
Brokers fill this vacuum in the supply chain has they have access to market information unknown small holder farmers. By having information on prices, supply sources, they control farmer’s profitability. They bulk supplies from many sources without registering or preserving their identity of the farms and then delivery this to the buyers. This limited dissemination of market information provides insurmountable challenges to small holder farmers. Planned production requires farmers to know about market prices (Kimani, 1998).

2.3 Challenges facing marketing of horticulture produce
Driven largely by private traders responding to international market opportunities, the growth of the Kenyan fruit and vegetable sector has not been a smooth continuous process, rather, the sector has expanded in fits and starts with numerous changes in the commodity mix, types of marketing institutions, role of state and characteristics of practicing farmers. Over time the fruit and vegetable exports have become steadily more diversified. The importance of the canned pineapple for instance fell dramatically during the 1990’s owing in part to pressure from Thailand and other exporters and in part to the expansion in the fresh fruit and vegetable exports over this period (EPC, 2005).

European consumers are increasingly aware of the health consequences of pesticide residues. In 1990, the UK passed the Food Safety Act which obliged food retailers to demonstrate “due diligence” to ensure that the food they sell is safe. In practice, this means that supermarkets have become much more involved in imposing requirements on how food is produced throughout the commodity supply chain, even to the degree of monitoring and controlling horticultural production in developing countries (Dolan, 1999). This has both implications for the distribution chain and production which means
that customers must be able to trace the produce from the grower. Another issue is promotion whereby farmers must inform the buyers of the environmentally and socially acceptable products in the appropriate media.

Minimum residue levels (MRLs) of pesticides have become a focal point for this concern. The Fresh Produce Exporters Association (FPEAK) and HCDA have produced Codes of Practice for growers (FPEAK, 1999) including now Kenya Horticultural Code of Practice registered with the Kenya Bureau of Standard Standards (KBS) by FPEAK/KFC. Efforts are being made to benchmark Kenya Gap with international standards.

Indeed Kenya must demonstrate and maintain high standards of production, processing, packaging, and handling to meet new requirements of the EU including the EU regulation EC NO 1.18/2002 and also EUREPGAP. These address MRLs, introduction of organisms harmful to plants, and certificates of conformity.

Some aspects of the Code imply significant costs and there are currently no enforcement mechanisms other than awareness by government and exporters (DAO’s Annual report). These stringent regulations on food safety and social accountability in the production of fresh produce are becoming stricter because consumers are becoming more and more particular about the quality, safety and reliability of the fresh products they buy. All the requirements raise the cost of production and finally the market price.

Kenya horticulture currently enjoys duty-free access to European markets as a result of the Lomé Agreement, which was recently renewed for the period 2000-2005.
Kenya is facing greater competition from Egypt, South Africa, Chile, Brazil, and Thailand. Even without trade liberalization, horticultural markets are highly competitive subject to rapid shifts in export competitiveness. Jaffee (1995) describes the turbulent history of attempts to expand exports of dehydrated vegetables, passion fruit juice, and pineapple products, including several bankruptcies and government buy-outs. These factors require the farmers to be able to continuously get information on competitors, changing customer needs and market conditions.

2.4 Summary of literature
This chapter has pointed out the relevance of marketing in horticulture growth sub-sector. It is worth noting that this smallholder horticulture modern is young and growing but limited research has been done on application of marketing practices. The variability of horticulture crops with regard to their characteristics provides the basis for the major problems in the application of the marketing mix. The literature suggests that there are difficulties in establishing what proportion of total production flows through market channels as there is by lack of data, especially on processing.

From the literature review, most individuals and groups do not really grasp or embrace the marketing practices until driven to it by circumstances. This is so in regard to the product, promotion, pricing, distribution and information. This study will therefore look into the marketing practices and how it is applied by smallholder farmers in Manyatta division.
2.5 Conceptual framework

This study used a conceptual framework, which took into account the independent variables (prices, marketing information and intelligence, the distribution channels, horticultural products and promotion). The dependant variable for this study was the end product of marketing practices used by the smallholder farmers.

However, to determine the marketing practices there have to be challenges that the smallholder farmers undergo before making market decisions.

These concepts are illustrated diagrammatically figure 1 below:

![Diagram](image)

Figure 2. Factors affecting application of marketing mix practices.
CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction
This chapter discusses the research design, target population, sample and sampling procedure, research instruments, limitations of the study, data collection and data analysis procedure. The chapter further presents the expected outcome of the study.

3.2 Research design
Descriptive research design was used in order to provide accurate picture of marketing practices of smallholder farmers and challenges using reasonable and representative sample. This implies that information is collected from the smallholder farmers and any other relevant subjects who are associated with the marketing of horticultural crops and was analyzed to highlight important issues. Descriptive research design therefore involved procedures like describing, recording, analysis and interpreting the data.

3.3 Target Population
The target population of interest in the study consisted of all smallholder horticultural farmers in Manyatta Division of Embu District. Smallholders are those farming 1-2 acres (0.2-0.4 hectares) in high-rainfall zones and 5-10 acres (2-4 hectares) in semi-arid zones. According to DAEO Manyatta Embu horticulture, Reports (2005), there are 520 groups based horticultural and 330 non-group based horticultural farmers in the division. Farmers marketing groups are registered as self help groups or cooperative societies.
The marketing groups are supposed to market their produce as a group but some don’t because of commission they pay which averages about 2%. This study was interested on selected farmers from the two categories to provide information for the study.

3.4 Sampling procedure and Sample size

This study used stratified random sampling to select the farmers who participated in the study. There are two strata of the farmers (those in groups and non-group). In selecting the sample of respondents, the researcher used the stratified random and purposive sampling methods. A sampling frame obtained from DAEO’s office was used to randomly select both group-based farmers and non-group based farmers using random numbers. According to Gay (1992) in descriptive research, 10% of the accessible population is adequate for a sample. For the purpose of this study, 85 out of 850 respondents participated in the study.

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of farmers</th>
<th>Proportion of farmers</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of group based farmers</td>
<td>520</td>
<td>10%</td>
<td>52</td>
</tr>
<tr>
<td>Non group based farmers</td>
<td>330</td>
<td>10%</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>850</td>
<td>10%</td>
<td>85</td>
</tr>
</tbody>
</table>


3.5 Data Collection and Procedure

A pilot study to test for the validity and reliability of the instruments was carried. Based on the findings of the pilot test and consultation with the supervisor, the instruments were adjusted accordingly. The refined instruments were then administered to the farmers and key informants (horticulture officer, social services officer and cooperative officer).
Data on the marketing practices used by smallholder horticultural farmers was required. Data collection methods utilized questionnaires for the farmers and their employees who have direct and indirect responsibilities in marketing their products. Secondary data included reports and any other publication in the field of horticulture marketing literature.

The questionnaire included recording participant's background and experience on horticulture marketing practices. It was also used to elicit information on why the respondents think is potentially important to market the horticultural products. Finally, they were invited to respond to what they considered to be the main challenges to the marketing of the products.

3.6 Data Analysis and Presentation
Data was analyzed using descriptive statistics with the help of Statistical Package for Social Sciences (SPSS). Data was interpreted and inferences made and presented descriptively using charts, tables and percentages.
CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Introduction
In this chapter, the results and discussions of the responses of the smallholder farmers from the filled questionnaires were analyzed. The chapter is divided into sections, the results giving the presentations and discussions based on the specific research objectives.

4.2 Sample characteristics
Out of the 85 questionnaires to smallholder farmers all of them were duly filled and returned. This gives a response rate of 100%. The reason as to why the return rate was high is attributed to the fact that the researcher administered the instrument and collected them the same day.

4.2.1 Gender of the respondents
The study recorded the gender of the respondents. From the findings 53% of the respondents were male while 47% were female. More respondents were men and are likely to be more involved in marketing activities. Figure 4.1 presents the responses.
4.2.2 Location

The respondents were asked to state the location where they carried out their horticultural farming within Manyatta Division. The study sought information from 5 locations. From the responses 57% of the respondents were from Nginda Sub-Location, 15% of the respondents were from Ruguru Sub-Location, 14% were from Ngandori Location while 13% were from Gathuri North Location. Nginda division is the most busy location in addition to it having being more accessible in terms of road network. The responses are tabulated in table 4.1.
The respondents were further asked to state why they chose the location where they were displaying/marketing their horticultural produce. From the responses, 32% of the respondents indicated that it was close to the buyers, 31% low cost, 27% accessibility while 10% indicated that it was the only one available.

4.2.3 Educational level of the respondents
The study elicited information on the education level of the respondents. From the responses, majority (58%) of the respondents had primary level of education, 28% of the respondents had secondary school level of education while 14% had university level of education. Farmers have little education probably compared to other sectors and its not surprising that the have few people with professional achievements.
Table 4.3 Level of education of the respondents

<table>
<thead>
<tr>
<th>Level of education of the respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school level</td>
<td>49</td>
<td>58</td>
</tr>
<tr>
<td>Secondary school level</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>University level</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.4 Professional qualification

In addition, the respondents were asked to indicate whether they had any professional qualification. From the responses, 68% of the respondents indicated that they did not possess any professional qualification while 31% of the respondents indicated that they had some professional qualification.

Table 4.4 Professional qualification of the respondents

<table>
<thead>
<tr>
<th>Professional qualification of the respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>58</td>
<td>68</td>
</tr>
<tr>
<td>Yes</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.5 Farm ownership

The study attempted to find out the ownership of the farms. From the responses, majority (94%) of the respondents indicated that they were the owners of the farms, while 6% of the respondents were both the owners and managers of their farms. The responses are presented in figure 4.2 below.
In addition, the study attempted to record the sizes of the farms which the small holder farmers had. From the responses, 50% of the respondents had 0-1.9ha, 34% had 2-4.9ha while the 20% of the farmers had 5-7.9%ha of farms. These findings do not agree with the FAO (2002) which defines the smallholders as those farmers with 1-2 (2-4 hectares) in high rainfall zones and 5 – 10 acres (2 – 4 hectares) in semi-arid zones.

4.2.6 Legal status of the business
The study sought to establish the legal status of their activities. Majority of the respondents (74%) indicated that their business was a sole proprietorship while 26% of the respondents indicated that they were in partnership.
Table 4.5 Responses on the legal status of the smallholder Businesses

<table>
<thead>
<tr>
<th>Legal status of business</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sole proprietorship</td>
<td>63</td>
<td>74</td>
</tr>
<tr>
<td>Partnership/co-operative</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.7 Membership to marketing groups

The respondents were asked to state whether they belonged to any marketing group. From the responses, majority (60%) indicated that they belonged to a marketing group with average membership of a hundred but indicated that most of them don’t sell through the marketing groups because of high charges.

4.2.8 Length of period in horticulture marketing

The respondents were asked to state when they started the marketing group of their horticultural products. From the responses, 45% of the respondents started between 5 – 9 years ago, 24% started more than 10 years ago, 18% less than a year ago while 14% started 2 - 4 years ago. Table 4.8 presents the results.

Table 4.6 Responses on Number of years in horticulture marketing

<table>
<thead>
<tr>
<th>Number of years in horticulture marketing</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>2 - 4 years</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>5 - 9 years</td>
<td>38</td>
<td>45</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>
4.2.9 Reasons for starting horticultural marketing
The respondents were asked why they begun the marketing groups. From the responses, 49% was due to the need to get income, 33% started the groups in search for potential profits while 16% started them to offload surplus productions while 2% followed their friends and neighbors. The results are tabulated in Table 4.7.

Table 4.7 Reasons for starting horticultural marketing

<table>
<thead>
<tr>
<th>Reasons for starting horticultural marketing</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get income</td>
<td>86</td>
<td>49</td>
</tr>
<tr>
<td>Search for potential profits</td>
<td>59</td>
<td>33</td>
</tr>
<tr>
<td>To offload surplus productions</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>To follow friends and neighbors</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>177&lt;sup&gt;1&lt;/sup&gt;</td>
<td>100</td>
</tr>
</tbody>
</table>

<sup>1</sup>Multiple responses often given

4.2.10 where farmers sell their produce
The study asked the respondents what they did with their produce. From the responses, 42% of the respondents indicated that they sold their produce locally and exported, 41% of the respondents sold their produce locally while 17% of the respondents sold their produce to the exporters.

Table 4.8 Where farmers sell their produce

<table>
<thead>
<tr>
<th>where farmers sell their produce</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sell produce locally and export</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>Sell produce locally</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>Sell produce to exporters</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>
4.3 Product Decisions

4.3.1 Crops Grown by farmers

The respondents were asked to state the crops that they grew. From the responses 17% of the respondents grew carrots, 16% of the respondents grew cabbages and passion fruits respectively, 10% of the respondents grew green maize and bananas respectively, 6% grew snow peas and plums, 5% grew lettuce, avocados and garden peas while 4% of the respondents grew guavas. The responses are tabulated in Table 4.9.

Table 4.9 Responses on crops grown by farmers

<table>
<thead>
<tr>
<th>Crop</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrots</td>
<td>76</td>
<td>17</td>
</tr>
<tr>
<td>Cabbages</td>
<td>72</td>
<td>16</td>
</tr>
<tr>
<td>Passion fruits</td>
<td>72</td>
<td>16</td>
</tr>
<tr>
<td>Green maize</td>
<td>47</td>
<td>10</td>
</tr>
<tr>
<td>Bananas</td>
<td>47</td>
<td>10</td>
</tr>
<tr>
<td>Snow peas</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Plums</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Garden peas</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Lettuce</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Avocados</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Guava</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>454</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Multiple responses often given

4.3.2 Crops Marketed but not grown by farmers

The respondents were asked to state the crops that they did not grow but marketed. From the responses 31% of the respondents marketed snow peas, 19% of the respondents marketed avocados, 14% of the respondents marketed passion fruits and plums
respectively, 11% garden peas, while 5% marketed mangoes and kales. The responses are tabulated in Table 4.10 below.

**Table 4.10 Responses on crops not grown but marketed**

<table>
<thead>
<tr>
<th>Crops</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow peas</td>
<td>76</td>
<td>31</td>
</tr>
<tr>
<td>Avocados</td>
<td>47</td>
<td>19</td>
</tr>
<tr>
<td>Plums</td>
<td>34</td>
<td>14</td>
</tr>
<tr>
<td>Passion fruits</td>
<td>34</td>
<td>14</td>
</tr>
<tr>
<td>Garden peas</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>Kales</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Mangoes</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>243</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

1 Multiple responses often given

### 4.3.3 Factors to consider when deciding the crop to grow

The study sought to establish what the respondents considered when determining what crop to produce in their farms. From the responses, 26% indicated that they considered the demand of the buyers, 24% profitability, 19% considered financial resources, 17% indicated availability of labour 8% considered the crop produced by other farmers while 7% government policy. The results are tabulated in table 4.11 below.
Table 4.11 Factors determining crop to be grown

<table>
<thead>
<tr>
<th>Factors determining crop to be grown</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand by buyers</td>
<td>61</td>
<td>26</td>
</tr>
<tr>
<td>Profitability</td>
<td>56</td>
<td>24</td>
</tr>
<tr>
<td>Availability of land and financial resources</td>
<td>46</td>
<td>19</td>
</tr>
<tr>
<td>Availability of labour</td>
<td>40</td>
<td>17</td>
</tr>
<tr>
<td>The crop produced by other farmers</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Government policy</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>237</td>
<td>100</td>
</tr>
</tbody>
</table>

*Multiple responses often given*

4.3.4 Packaging

The respondents were asked to establish how they packed their products for the market. 31% use crates, 30% indicated that they used sacks, 23% indicated that they packed using cartons, and 15% used paper bags.

Table 4.12 Packaging of products

<table>
<thead>
<tr>
<th>Packaging of products</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In crates</td>
<td>55</td>
<td>31</td>
</tr>
<tr>
<td>In sacks</td>
<td>53</td>
<td>30</td>
</tr>
<tr>
<td>In cartons</td>
<td>41</td>
<td>23</td>
</tr>
<tr>
<td>In paper bags</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>100</td>
</tr>
</tbody>
</table>

*Multiple responses often given*

4.3.5 Features incorporated for the produce to suit the market

The study attempted to establish whether the respondents had any unique features that they incorporated for their products to suit the market. From the responses, 40% of the
respondents indicated usage of attractive packaging, 30% of the respondents indicated that they delivered their produce while fresh as possible by cold storage, 24% of the respondents provided produce information, 6% indicated that they processed their products. Table 4.13 provides the responses.

**Table 4.13 Features incorporated in the product to suite market**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractive packaging</td>
<td>53</td>
<td>40</td>
</tr>
<tr>
<td>Deliver produce fresh as possible by cold storage</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Provide produce information</td>
<td>33</td>
<td>24</td>
</tr>
<tr>
<td>Process the product</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>134(^1)</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^1\)Multiple responses often given

4.4 Promotion Decisions

4.4.1 Methods used to attract customers

The study explored the methods that they used for the respondents to capture the attention of the customers. The respondents indicated that they used word of mouth (25%), usage of posters and leaflets (24%), seminars and workshops (19%) respectively, while others used events and contests (11%). The most effective tools were word of mouth and events such as shows and market day.
Table 4.14 Methods used to attract customers

<table>
<thead>
<tr>
<th>Methods used to attract customers</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of mouth</td>
<td>68</td>
<td>25</td>
</tr>
<tr>
<td>Posters and leaflets</td>
<td>65</td>
<td>24</td>
</tr>
<tr>
<td>Seminars/workshops</td>
<td>51</td>
<td>19</td>
</tr>
<tr>
<td>Events</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>Contests</td>
<td>31</td>
<td>11</td>
</tr>
<tr>
<td>Exhibitions/trade fairs</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Telephone</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>271</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Multiple responses often given

4.4.2 Factors considered in selecting promotional tools

This study attempted to explore the factors that respondents considered when selecting the promotional tools to use for their produce promotion. From the responses 32% of the respondents indicated cost, 30% of the respondents cited speed, and 29% of the respondents indicated that they considered availability of the tool while 9% of the respondents cited reach.

Table 4.15 Factors considered in selecting promotional tools

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>51</td>
<td>32</td>
</tr>
<tr>
<td>Speed</td>
<td>48</td>
<td>30</td>
</tr>
<tr>
<td>Availability</td>
<td>47</td>
<td>29</td>
</tr>
<tr>
<td>Reach</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>160</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Multiple responses often given
4.5 Pricing Decisions

4.5.1 Factors for setting up produce price
The study attempted to find out the factors that the farmers considered in setting up the produce prices. 57% of the respondents indicated that they determined the total cost and added the profit margin, 13% used what other farmers did and Charge high prices to reflect quality respectively, 11% of the respondents sold at low price to get more buyers while 5% of the respondents indicated that they sold at higher prices to take advantage of high demand.

Table 4.16 Factors considered when setting up selling price

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining total cost and adding a profit margin</td>
<td>65</td>
<td>57</td>
</tr>
<tr>
<td>Go by what other farmers do</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Charge high prices to reflect quality</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Sell at low price to get more buyers</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Sell at high prices to take advantage of high demand</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>114¹</td>
<td>100</td>
</tr>
</tbody>
</table>

Multiple responses often given

4.5.2 Discount given by farmers to customers
The study further asked the respondents whether they had discount for their customers. In response 60% of the respondents indicated that they had discount while 40% of the respondents indicated that they did not give discounts for their buyers.
Table 4. 17 Discount given by farmers to customers

<table>
<thead>
<tr>
<th>Discount given by farmers to customers</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>Yes</td>
<td>51</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

4.6 Distribution Decisions

4.6.1 Choice of location

In an attempt to establish why the farmers chose the particular location to market and display their produce; 47% of the respondents indicated that it was due to its accessibility, 40% of the respondents indicated that it was due to the fact that it was close to the buyers, 13% cited low cost of the locality.

Table 4. 18 Factors considered in choice of market/display location

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close to buyers</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>Accessibility</td>
<td>40</td>
<td>47</td>
</tr>
<tr>
<td>Low cost</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

4.6.2 Source of the customers

On where the customers came from, the study established that 34% came from the neighbourhood, 34% came from Embu town 24% from other towns 6% from Nairobi while only 2% came from other countries.

These results can be attributed to the fact that majority of the customers were brokers who either came from the neighborhood or Embu town.
Table 4.19 Source of customers

<table>
<thead>
<tr>
<th>Source of customers</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood</td>
<td>74</td>
<td>34</td>
</tr>
<tr>
<td>Embu</td>
<td>73</td>
<td>34</td>
</tr>
<tr>
<td>Other towns</td>
<td>51</td>
<td>24</td>
</tr>
<tr>
<td>Nairobi</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Other countries</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>217</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Multiple responses often given*

4.6.3 Means of delivery

The study asked respondents to indicate the means that they used to ensure that the produce reached the customers (buyers). From the responses, 46% of the respondents indicated that they transported their produce to the buyers at their own cost and 46% of the buyers collected the produce from the farm, while 8% of the respondents indicated that they transported the produce to the buyer at the buyer’s cost.

Table 4.20 Means farmers use for the products to reach the customer

<table>
<thead>
<tr>
<th>Means farmers use for the products to reach the customer</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transports to the buyer at my own cost</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>Transports to the buyer at buyers' cost</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Buyer collects from my farm</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
4.7 Market information

The study attempted to elicit information on whether the respondents collected marketing information. While responding, majority (98%) of the respondents indicated that they collected market information. However, 2% of the respondents indicated that they did not collect market information.

Table 4.21 Collection of market information

<table>
<thead>
<tr>
<th>Collection of market and marketing information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Yes</td>
<td>83</td>
<td>98</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

In addition, the respondents were asked to state who collected market information for them. From the responses, 71% of the respondents indicated that they collected information for themselves, 28% of the respondents indicated that they employed the services of a researcher.

Table 4.22 Who collect market information

<table>
<thead>
<tr>
<th>Who collects market information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>60</td>
<td>71</td>
</tr>
<tr>
<td>Researcher</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

On what areas that the respondents sought information, 23% of the respondents indicated that they collected information on price 18% on new markets 15% on customer needs,
12% location, 9% sought information on produce 8% on competition, 7% on labour while 7% sought information on buyer satisfaction. Table 4.23 presents the findings.

**Table 4.23 Areas where market information is sought**

<table>
<thead>
<tr>
<th>Areas where market information is sought</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>50</td>
<td>23</td>
</tr>
<tr>
<td>New markets</td>
<td>38</td>
<td>18</td>
</tr>
<tr>
<td>Customer needs</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>Location</td>
<td>27</td>
<td>12</td>
</tr>
<tr>
<td>Produce</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Competition</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Labor</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Buyer satisfaction</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216¹</td>
<td>100</td>
</tr>
</tbody>
</table>

¹Multiple responses often given

The respondents were asked to state how often they collected market information. From the responses 39% indicated that they did so annually, 35% seasonally, 24% any time.

**4.7.1 Usage of market information**

The respondents were further asked to state how they used the market information that they collected. While responding, the respondents indicated that they used the information in studying the demand and supply (35%), production cost 26%, overcome competition 20% while 19% of the respondents used the information for the objectives of the business.
Table 4.24 How the respondents used market information

<table>
<thead>
<tr>
<th>How the respondents used market information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand and supply</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Production cost</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Competition</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>My objectives</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority of small holder horticultural farmers have some Market intelligence system. Most of them collecting Market intelligence do it themselves and on seasonal or biannual basis rather than commissioning an external agent.

4.8 Target customers

The study sought to find out the groups of people that the farmers targeted. From the responses 41% of the respondents indicated that they targeted middlemen, 21% exporters 17% processors, 14% targeted employed people and 6% youth.

Table 4.25 Target customers

<table>
<thead>
<tr>
<th>Target Customers</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middlemen</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>Exporters</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Processors</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>Employed people</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Youth</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Children</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>144(^1)</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^1\)Multiple responses often given
In addition the respondents were asked to state how they were able to identify their customers. From the responses 30% of the respondents indicated that they identified the customers through market research, 23% through brokers and middlemen, 17% through extension officers, and 16% by attending shows/fairs while 14% of the respondents indicated that they got customers by chance.

Table 4.26 Means of customer identification

<table>
<thead>
<tr>
<th>Customer identification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through own market research</td>
<td>68</td>
<td>30</td>
</tr>
<tr>
<td>Through brokers and middlemen</td>
<td>52</td>
<td>23</td>
</tr>
<tr>
<td>Through extension officers</td>
<td>40</td>
<td>17</td>
</tr>
<tr>
<td>By attending shows/fairs</td>
<td>37</td>
<td>16</td>
</tr>
<tr>
<td>Through chance</td>
<td>32</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td>100</td>
</tr>
</tbody>
</table>

Multiple responses often given

4.9 Challenges farmers face in marketing of produce locally

In addition, the respondents were asked to state the challenges that they faced while marketing their produce locally, 28% of the respondents identified unpredictable prices 25% indicated high produce transportation costs, 17%, indicated stiff competition, 12% difficulty in getting farm inputs and 25% difficulty in meeting quality standards.
4.10 Challenges farmers face in attempt to market produce in foreign market

The study attempted to elicit information on the challenges that the farmers faced in an attempt to market their products in foreign markets. 33% of the respondents indicated that they did not have adequate capital, 31% cited lack of information about export market, 24% of the respondents indicated that they had difficulty in sustaining required export volumes while 12% of the respondents indicated that entry to the market was difficult.

Table 4.28 Challenges farmers face in attempt to market produce in foreign market

<table>
<thead>
<tr>
<th>Challenges farmers face in attempt to market produce in foreign market</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of adequate capital</td>
<td>68</td>
<td>33</td>
</tr>
<tr>
<td>Lack of information about export market</td>
<td>64</td>
<td>31</td>
</tr>
<tr>
<td>Difficult in sustaining required export volumes</td>
<td>51</td>
<td>24</td>
</tr>
<tr>
<td>Entry is difficult</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>209†</td>
<td>100</td>
</tr>
</tbody>
</table>

†Multiple responses often given
4.11 Problems faced by the farmers
The study attempted to elicit information on problems that the farmers faced in marketing their products. This was carried out on a fine point Likert scale. The respondents rated lack of marketing information on prices and market opportunities (59%) to be highest, many (57%) of the farmers strongly agree that brokers exploitation and competition from other farmers affected them respectively while other cited middlemen exploitation by buying low prices and lack of transport in the market (55%) respectively. In addition the respondents (54%) cited higher transport charges. Table 4.29 presents the summary of the results.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Strongly agree (%)</th>
<th>Agree (%)</th>
<th>Neither Agree or disagree (%)</th>
<th>Disagree (%)</th>
<th>Strongly disagree (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of marketing information on price and market opportunities</td>
<td>59</td>
<td>35</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Broker's exploitation</td>
<td>56</td>
<td>18</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Competition from other farmers' produce</td>
<td>56</td>
<td>22</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Middlemen exploit us by buying at low prices</td>
<td>55</td>
<td>34</td>
<td>1</td>
<td>9</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Lack of transport to the market</td>
<td>55</td>
<td>33</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>High transport charges to the market</td>
<td>54</td>
<td>29</td>
<td>14</td>
<td>2</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Perishability of produce before they reach to the market</td>
<td>40</td>
<td>47</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Lack of government support</td>
<td>38</td>
<td>26</td>
<td>1</td>
<td>19</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>Middlemen buy on cash</td>
<td>32</td>
<td>35</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Inability to conduct market research</td>
<td>24</td>
<td>62</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Lack of money to promote my produce</td>
<td>18</td>
<td>34</td>
<td>19</td>
<td>13</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>Low and poor prices</td>
<td>16</td>
<td>36</td>
<td>20</td>
<td>15</td>
<td>12</td>
<td>100</td>
</tr>
<tr>
<td>High market fees charged by country council</td>
<td>9</td>
<td>71</td>
<td>5</td>
<td>15</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Middlemen are good customers who are always ready to buy</td>
<td>8</td>
<td>49</td>
<td>18</td>
<td>11</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>Middlemen don't help us at all</td>
<td>8</td>
<td>36</td>
<td>19</td>
<td>35</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

N=85
4.12 Strategies to solve the problems
The respondents were asked to state what strategies they employed to solve the problems that they encountered in marketing their produce. From the responses 22% indicated that they sold their produce as a group to have a stronger bargaining power, 20% employed proper and careful handling of the produce, 15% got government help and monitored market prices, 13% sold their produce directly to the market to avoid middlemen exploitation, 11% conducted simple market research while 4% engaged in aggressive personal selling because advertising is very costly. Table 4.30 presents the responses.

Table 4.30 Strategies employed by smallholder farmers to counter marketing problems

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling as a group to have a stronger bargaining power</td>
<td>64</td>
<td>22</td>
</tr>
<tr>
<td>Proper and careful handling of the produce</td>
<td>59</td>
<td>20</td>
</tr>
<tr>
<td>Monitoring market prices</td>
<td>46</td>
<td>15</td>
</tr>
<tr>
<td>Get government help</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>Selling directly to the market to avoid middlemen exploitation</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Conducting simple market research</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Engaging in aggressive personal selling because advertising is very costly.</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>298¹</td>
<td>100</td>
</tr>
</tbody>
</table>

¹ Multiple responses often given
4.13 Discussion of the study findings
The discussion of the findings is organized as per the objectives of the study (in chapter one) which aimed to: identify the product marketing practices the smallholder horticulture farmers use; find out how farmers determine the price for their produce; determine the marketing challenges faced by smallholder horticulture farmers in marketing their produce; identify the distribution channels the small-scale horticulture farmers’ use and marketing information practices they use.

(a) Sample characteristics
The findings on the characteristics of the smallholders showed that most (53%) of the smallholder farmers were male while 47% were female (Figure 4.1). From the findings Nginda Location has a higher concentration of smallholder farmers (57%), Ruguru Location recorded 15% of the, Ngandori Location had 14%, while 13% were from Gathuri North Location (Table 4.1).

On the educational level of the smallholder farmers, majority (58%) of the respondents had primary level of education, 28% of the respondents had secondary school level of education while 14% had university level of education (Table 4.3). In addition the 68% of the farmers did not posses any professional qualification while 32% of the respondents indicated that they had some professional qualification (Table 4.4).

Majority (94%) of the farmers owned the farms, while 6% of the respondents were both the managers and managers of their farms (Figure 4.2).
In addition, the sizes of the farms which the smallholder farmers carried their activities ranged from 0-1.9ha (45%), 34% of the farmers had 2-4.9ha while the 20% of the farmers had 5-7.9%ha of farms. On the legal status of the business, majority of the respondents (74%) indicated that their business was a sole proprietorship while 26% of the respondents indicated that they were in partnership or cooperation with other farmers (Table 4.5). Furthermore, the choice of location was important. The farmers chose the particular location because of close to the buyers (32%), low cost of the locality (31%) and accessibility (27%) while 10% said it was only available. The length that the farmers had been in the marketing horticultural products ranged from 5 – 9 years ago (45%), more than 10 years (4%), less than one year (18%) and 2 - 4 years (14%) indicating horticultural marketing is relatively young among smallholder farmers (Table 4.6).

The study established various reasons why the smallholder farmers practiced marketing. From their responses, 49% was due to the need to get income, 33% started marketing in search for potential profits, 16% started to offload surplus productions while 2% followed what friends did (Table 4.7).

(b) Product Decisions

The study further established that 17% of the farmers grew carrots, 16% of the respondents grew cabbages and passion fruits respectively, 10% of the respondents grew green maize and bananas respectively 6% grew snow peas and plums, 5% grew lettuce, avocados and garden peas while 4% of the respondents grew guavas (Table 4.9). On what they did with their produce (42%) of the respondents indicated that they sold their produce locally and exported, 41% of the respondents sold their produce locally while
17% of the respondents sold their produce to the exporters (Table 4.8). The choice of the crops was based on 26% (the demand of the buyers), 24% (profitability), 19% (resources), 17% (availability of labour) and 7% (government policy) (Table 4.11). The findings on the crops that they did not grow but marketed 31% of the respondents marketed snow peas, 19% of the respondents marketed avocados, 14% of the respondents marketed passion fruits and plums respectively, 11% garden peas, while 5% marketed mangoes sand kales (Table 4.10).

The study explored how they packed their products for the market in which 31% used crates, 30% sacks 23% packed using cartons and respectively, 15% used paper bags (Table 4.12). In addition, various features were incorporated for the produce to suit the market. 40% attractive packaging, 30% of the farmers delivered their produce while fresh as possible by cold storage, 24% of the farmers provided produce information while 6% processed their products (Table 4.13).

(c) Promotion Decisions
The farmers in Manyatta Division seemed to use various methods to attract customers. The findings indicated that the prevalent method was word of mouth (25%), usage of posters and leaflets 24%, seminars and workshops (19%), events (15%) and (11%) contests (Table 4.14). The study further found out that, the farmers considered various factors in their choice of promotional tools. 32% of the farmers considered cost of the tools, 30% cited speed, and 29% indicated that they considered availability while 9% of the respondents cited reach (Table 4.15).
(d) Pricing Decisions

In setting up the produce prices, 57% of the respondents indicated that they determined the total cost and added a profit margin, 13% used what other farmers did and charged high prices to reflect quality, 11% of the respondents sold at low price to get more buyers while 5% of the respondents indicated that they sold at higher prices to take advantage of high demand (Table 4.16). Despite setting up the prices, 60% of the farmers gave discount to their customers while 40% of the respondents indicated that they did not give discounts for their buyers (Table 4.17). The farmers in Manyatta Division targeted middlemen (41%), exporters (21%), processors (17%), employed (14%) and youth (6%). Youth customers are targeted during games, social events, drama etc.

(e) Distribution Decisions

The study established that the source of the customers was the neighborhood (87%), Nairobi (17%), Embu Town 86%, 60% came from other towns while 6% came from other Countries (table 4.16). The study also established that the produce reached the customers (buyers) by transported the produce to the buyers their own cost and the buyer collected the produce from the farm respectively, (46%) while 8% of the respondents indicated that they transported the produce to the buyer at the buyer’s cost (Table 4.20).

(f) Market Information

The study found out that the farmers collected marketing information (98%) however, 1% of the respondents indicated that they did not collect market information (Table 4.21). Most of the farmers (71%) collected information for themselves, 28% of the respondents...
indicated that they employed the services of a researcher (Table 4.19). On what areas that
the farmers sought information, 23% on the price, 18% on new markets, 15% customer
needs, 12% location, 8% of the respondents indicated that they collected information on
competition, 9% produce, while 7% buyer satisfaction (Table 4.23). On the frequency that
they collected market information (39%) indicated that they did so annually, 35%
seasonally, 24% any time while 1% don't collect market information at all.

(g) Challenges and problems faced by small holder farmers and strategies they use
to solve them

The study identified some of the challenges that the farmers faced while marketing their
produce locally, 28% identified unpredictable prices, 25% of the respondents indicated
high produce transportation costs, 17% indicated stiff competition, 12% difficulty in
getting farm inputs and 8% difficulty in meeting quality standards (Table 4.27).

In addition, they face challenges in an attempt to market their products in foreign
markets. 33% of the respondents indicated that they did not have adequate capital, 31%
cited lack of information about export market, 24% of the respondents indicated that
entry to the market was difficult while 12% of the respondents indicated that they had
difficulty in sustaining required export volumes (Table 4.28).

The study attempted to elicit information on problems that the farmers faced in marketing
their products. This was carried out on a fine point Likert scale. The respondents rated
lack of marketing information on prices and market opportunities (59%) to be highest,
many (57%) of the farmers strongly agree that brokers exploitation and competition from
other farmers affected them respectively while other cited middlemen exploitation by buying low prices and lack of transport in the market (55%) respectively. In addition, the respondents (54%) cited higher transport charges (Table 4.27). The respondents were asked to state what strategies they employed to solve the problems that they encountered in marketing their produce. From the responses 22% indicated that they sold their produce as a group to have a stronger bargaining power, 20% employed proper and careful handling of the produce, 15% got government help, 15% monitored market prices, 13% sold their produce directly to the market to avoid middlemen exploitation, 11% conducted simple market research while 4% engaged in aggressive personal selling because advertising is very costly (Table 4.30).
CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the study findings, conclusion and recommendations for further research. The purpose of the study was to determine what marketing practices do small scale horticulture farmers’ use.

5.1 Summary of the findings

The researcher issued out 85 questionnaires to smallholder farmers in Manyatta Division in Embu District of which were all returned. Majority of the respondents were male.

From the findings, majority of the farmers were men and education level of the respondents seemed to be low, as majority of the farmers had attained only primary education with no secondary or professional qualification. Of the farmers who participated in the study, majority indicated that they belonged to a marketing group; however, some did not belong to a group. The reason why they participated in marketing was due to the need to get income, search for potential profits while others used it to offload surplus productions. The sizes of farms for most smallholders were relatively bigger (between 0 – 9 ha).

The farmers grew carrots, cabbages, passion green maize, bananas snow peas and plums, 25% grew lettuce, avocados and garden peas and guavas of which they sold their produce locally and few exported.
Packaging of the products for the market was done by use of sacks, cartons, crates and paper bags. In addition, various features were incorporated for the products to suit the market of which the farmers provided produce information, attractive packaging, they processed their products while other farmers delivered their produce while fresh as possible by cold storage.

The farmers in Manyatta Division seemed to use various methods to attract customers. The findings indicated that the prevalent method was word of mouth, usage of posters and leaflets, events and contests. Others used seminars and workshops. The study further found out that, the farmers considered various factors in their choice of promotional tools based on cost, speed, availability and reach.

In setting up the produce prices was determined by the total cost and added the profit margin, what other farmers did, selling low price to get more buyers while some farmers indicated that they sold at higher prices to take advantage of high demand. Despite setting the farmers gave discount to their customers.

The study established that the source of the customers was the neighborhood, Nairobi, Embu Town while others came from other town. The study also established that the produce reached the customers (buyers) by being transported to the buyers at their own cost and the buyer collected the produce from the farm. The choice of the location where they were displaying out their horticultural produce was determined by closeness to the buyers, cost and accessibility.
The study found out that the farmers collected marketing information. Most of the farmers collected information annually and seasonally for themselves, whereas others employed the services of a researcher. On what areas that the farmers sought information, they indicated that they collected information on price, new markets, customer needs, location, crop to produce competition, and buyer satisfaction.

The challenges that the farmers faced in an attempt to market their products in foreign markets included inadequate capital, lack of information about export market, difficulty in sustaining required export volumes and entry to the market was difficult. In addition, the local challenges that they faced while marketing their produce, included high produce transportation costs, stiff competition, unpredictable prices, difficulty in getting farm inputs and difficulty in meeting quality standards. In general smallholder farmers cited lack of market information& opportunities, exploitation by brokers, high transport costs to the market, perishability and lack of enough government support as major problems.

**5.2 Conclusion**

The smallholder farmers in Manyatta Division grow a variety of horticultural crops of which they market and a few of them market produce from which they don’t grow in their farms. Farmers apply marketing mix practices concerned with product, promotion, price, market information and distribution to target customers although probably with little efficiency. Since many farmers packed their produce in crates and sacks they quality is likely to deteriorate before reaching the market especially the ones in sacks and becomes unattractive to buyers hence fetching poor prices.
The most prevalent mode of promotion is word of mouth which can be misused (as actually is) may have negative effect to the farmers especially if brokers use this tool. The farmers do not have adequate capital and lack information about export market to enter foreign market.

Transportation cost is high due to poor impassable roads especially during rainy season. Farmers’ display/market produce close to buyers making them susceptible to wishes of brokers as the dictate prices because product will go bad and farmers cannot return the produce to the farm again.

Smallholder farmers use production cost plus a margin on top method and this is unlikely to lead them to exploit the market fully as they cannot use supply and demand forces and in that the no one method is ideal.

Most farmers collect information annually and seasonally but market conditions change frequently thus it may not be possible for the farmer to get actual market conditions and requirements when needed. Farmers don’t get feedback on buyer satisfaction therefore they may not be able to monitor buyer requirements or even changes.

Inadequate market information and market opportunities are major problems ranked highly by farmers and are likely to be on stakeholders’ agenda of solving smallholder’s farmers marketing problems.

The study concludes that it is better for smallholder farmers to be organized into informed legally registered marketing groups for better bargaining power, economies of scale, meet buyers volumes, and for better extension support.
5.3 Recommendations

The study isolated a number of recommendations related to the marketing practices that smallholder farmers use in Manyatta Division. The study recommends therefore that:

1. Smallholder horticultural farmers mainly rely on word of mouth for their promotion and they need to be encouraged to use 'positive word of mouth' as a means of promotion. When choosing the promotion tool to use the small holder horticultural farmers mainly consider the cost and speed. There is need to introduce other forms of promotion such as e-marketing to target the local and overseas markets after a study on how it can be applied by smallholder farmers.

2. There is need for the farmers to seek extension support in trying to get market information in addition to employing an external agent especially if they are in a marketing group.

3. Smallholder horticultural farmers rely on domestic market, which lead to stiff competition. They should open up new markets by sourcing buyers from other market areas, towns and overseas as they are more profitable but more demanding in terms of information and quality. Promotional tools should be used to ensure their products are known in these markets.

4. Financial institutions should make available smallholder horticultural farmers friendly credit facilities. This would make them grow more crops, expand their production and enter foreign markets.

5. In order to reduce risks in horticulture marketing smallholder horticultural farmers should diversify by venturing into other related services.

6. The government need to formulate appropriate policies through Ministry of Agriculture in order to encourage and streamline this relatively young sector by
developing agricultural marketing policy, which has great potential in terms of job creation, reducing supply demand gap and earning domestic and foreign revenue for the government.

7. Smallholder horticultural farmers should have contracts with buyers after forming marketing groups for better bargaining and are able to meet buyer volume requirements.

8. Horticultural Crop Development Authority should promote the cooling facilities and other horticultural handling facilities it has and finally hand over their ownership and management to organized, facilitated legally registered horticultural farmers marketing groups. In addition the HCDA marketing department should be strengthened to do promotional of produce locally & internationally or facilitate formation of a strong horticultural marketing body.

5.4 Suggestions for further research

The study recommends the following area for further research

1. The efficiency of marketing practices applied by smallholder horticultural farmers since some farmers belonged to marketing groups but did not market their produce through them because of commission charges.

2. It also recommended research on the number of farmers, hecterage and production required for a marketing group to be economically viable.

3. There is need to carry out a research on the market practices used by large-scale horticultural farmers.

4. A similar study can be carried out in other provinces in Kenya to compare the findings.


EU, (2005). Market survey of fresh fruits and vegetables; Centre for The Promotion of Imports from Developing Countries (CBI), The Netherlands


Background paper for a Stakeholder Consultation Meeting, Norfolk Hotel, Nairobi, 8 February 2000.


Sandoval R. P. (1980). *Fruit and Vegetables Marketing Development in the Philippines*; In the proceedings of the international seminar on producer oriented marketing strategies and program.

Suzuki T (1983). *The Marketing of Fruit and Vegetables in Japan*; In the proceedings of the international seminar on producer oriented marketing strategies and program.


Dear Respondent,

RE: RESEARCH ON “MARKETING PRACTICES USED BY SMALLHOLDER HORTICULTURE FARMERS: A CASE OF SMALLHOLDER FARMERS IN MANYATTA DIVISION, EMBU DISTRICT”

I am a postgraduate student of Kenyatta University undertaking a Masters of Business Administration. As part of the requirements for the award of the degree I am carrying out a research entitled “Marketing mix practices used by smallholder horticultural farmers: a case of smallholder farmers in Manyatta Division, Embu District”.

You have been selected to be part of this study. I kindly request you to assist me in filling the attached questionnaire.

The information you give will be purely used for the purpose of this research and will be treated in confidence. In no way will your name appear in the final report.

Your assistance and corporation will be highly appreciated.
Appendix 2 - Questionnaire

Instructions

• This is to request you kindly to fill in this questionnaire by responding to all questions.

• There is no right or wrong answer so you do not have to discuss or consult with a friend.

• You do not need to write your name anywhere in this questionnaire.

• The information gathered shall be treated in confidence and will be used for this research ONLY.

SECTION A - BACKGROUND INFORMATION

1. Gender  Male ☐  Female ☐

2. Location..........................................

3. Approximate size of your farm (HA)...........

4. Designation of respondent
   Owner, ☐
   Manager, ☐
   Owner/manager ☐
   Other (specify)........................................................................

5. What is the highest level of your education?
   Primary school level ☐
   Secondary school level ☐
   University level ☐
   Other (specify).................................
6. Do have any professional qualification?
   Yes   □
   No    □

   If yes (specify area)..............................

7. Which of the categories below best describes you?
   Sell produce locally and export   □
   Sell produce only to exporters   □
   Sell produce only locally   □
   Other (specify).................................

8. What is the legal status of your business?
   Sole proprietorship   □
   Partnership   □

   Other (specify).................................

9. Which year did you start the horticulture marketing.........................

10. What inspired you to start horticultural marketing?
    Search for potential profits   □
    To offload surplus productions   □
    To get income   □
    To follow friends and neighbours   □

    Other (specify).................................

11. What is your estimated annual market volume in tons?
    Below 1   □
    1-3   □
    3-5   □
    5-10   □
    10-40   □
    40-80   □
    Above 80   □
12. Do you belong to any marketing group?
   - Yes [ ]
   - No [ ]

13. If your answer to the above is yes, what is the number of current group members? 

SECTION B: PRODUCE

1. From the list below, indicate the crops you grow in your and market?
   - Cabbages [ ]
   - Tomatoes [ ]
   - Carrots [ ]
   - Snow peas [ ]
   - Garden peas [ ]
   - Irish potatoes [ ]
   - Passion fruits [ ]
   - Sweet/baby corn [ ]
   - Green maize [ ]
   - Kales [ ]
   - Lettuce [ ]
   - Bananas [ ]
   - Mangoes [ ]
   - Avocados [ ]
   - Guava [ ]
   - Plums [ ]
   - Apples [ ]
   - Any other (specify) [ ]

2. From the list below, indicate the crops that you market but you do not grow or produce them in your farm
   - Cabbages [ ]
   - Tomatoes [ ]
   - Carrots [ ]
   - Snow peas [ ]
   - Garden peas [ ]
   - Irish potatoes [ ]
   - Passion fruits [ ]
   - Sweet/baby corn [ ]
   - Green maize [ ]
   - Kales [ ]
   - Lettuce [ ]
   - Bananas [ ]
   - Mangoes [ ]
   - Avocados [ ]
   - Guava [ ]
   - Plums [ ]
   - Apples [ ]
   - Any other (specify) [ ]

3. What factors do you consider when determining the crop to produce in your farm?
   - Demand by buyers [ ]
   - The crop produced by other farmers [ ]
   - Availability of land and financial resources [ ]
   - Availability of labour [ ]
   - Government policy [ ]
   - Profitability [ ]
4. How do you pack your products for the market?
   - Cartons
   - Sacks
   - Paper bags
   - Crates
   - Other (specify) ........................................

5. What features do you incorporate to your produce to suite the market?
   - Attractive packaging
   - Process the product
   - Provide produce information
   - Deliver produce fresh as possible by cold storage
   - Other (specify)..........................................

SECTION C: PROMOTION

1. Which methods do you use to attract buyers? Please tick
   - Events e.g. ceremonies
   - Posters and leaflets
   - Word of mouth
   - Farmers’ magazine
   - Contests
   - Exhibitions/trade fairs
   - Seminars/workshops
   - Telephone
   - Other (S) specify……………………………………..

2. From the above promotional tools tick three in order of effectiveness, which have you have found to be most effective.
   - Events e.g. ceremonies
   - Posters and leaflets
   - Word of mouth
   - Farmers’ magazine
3. Which factors do you consider when selecting the promotional tools to use?

- Cost
- Reach
- Availability
- Speed
- Other (specify)

SECTION D: MARKET CHANNEL

1. Which one below describes your premises where you sell/display your produce?

- Own
- Rental
- Group owned

2. Why did you choose this particular location?

- Close to buyers
- Accessibility
- Was only one available
- Low cost
- Other (specify)

3. Where do your customers come from?

- Embu
- Neighborhood
- Nairobi
- Other towns
- Other countries
- Other (specify)
4. What means does your use to ensure your produce reach the buyers?
   - Transports to the buyer at my own cost □
   - Transports to the buyer at buyers’ cost □
   - Buyer collects from my farm □
   - Other (specify)..................................................

SECTION E: MARKET RESEARCH

1. Do your collect market and marketing information?
   - Yes □
   - No □

2. If the answer to above is yes, who collects market information?
   - Self □
   - Researcher □
   - Government □
   - Other (S) specifies.................................

3. In what areas do you collect market information?
   - Location □
   - Competition □
   - Price □
   - Produce □
   - Buyer satisfaction □
   - New markets □
   - Customer needs □
   - Labour □
   - Other (S) specify.................................

4. How often do you collect market information?
   - Annually □
   - Semi annually □
   - Seasonally □
   - Any time □
   - Other (specify)..................................................

5. How do you use the market information you get?...........................................
   ..................................................................................................................

SECTION F: PRICE

1. What factors do you consider when setting your produce price?
   - My objectives □
2. What method do you use in setting your produce price?

- Determining total cost and adding a profit margin
- Go by what other farmers do
- Sell at low price to get more buyers
- Sell at high prices to take advantage of high demand
- Charge high prices to reflect quality
- Other (specify)

3. How do you ensure buyers pay for their produce on time once they buy from you?

(i) ..................................
(ii) ..................................
(iii) ..................................
(iv) ..................................
(v) ..................................

4. Do you have any form of discount to your customers?

- No
- Yes

If Yes (explain)

SECTION G: OTHERS

1. Which of the following groups of people do you target?

- Youth
- Employed people
- Middlemen
- Children
- Exporters
- Processors
2. How do you identify buyers? Please indicate numbers 1, 2, 3 in order of priority for first three.

- Through my own market research
- By attending shows/fairs
- Through extension officers
- Through chance
- Through brokers and middlemen
- Other (specify)

3. What challenges do you face in marketing your attempt to market produce in the foreign market?

- Lack of information about export market
- Lack of adequate capital
- Difficult in sustaining required export volumes
- Entry is difficult
- Other (specify)

4. What challenges do you face in marketing your produce locally? Please indicate numbers 1, 2, 3 in order of priority for first three.

- Unpredictable prices
- High cost of produce transportation
- Difficult in getting farm inputs
- Difficult in meeting quality standards
- Lack of market information
- Stiff competition
- Other (specify)

5. What ways do you think should be done to solve the problems listed above?

(i) 
(ii) 
(iii) 
(iv)
6. What major marketing problems as a smallholder horticulture farmer do you face? (Tick numbers, which best represent your level of agreement as appropriate in the rows)

5 = strongly agree
4 = agree
3 = neither agree or disagree
1 = Strong disagree

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lack of marketing information on price and market opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Middlemen exploit us by buying at low prices</td>
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<td></td>
<td></td>
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<tr>
<td>3. Broker’s exploitation</td>
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<td></td>
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<tr>
<td>4. Competition from other farmers’ produce</td>
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<tr>
<td>5. Middlemen buy on cash</td>
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<td>6. Middlemen are good customers who are always ready to buy</td>
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<tr>
<td>7. Lack of money to promote my produce</td>
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<tr>
<td>8. Middlemen don’t help us at all</td>
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<tr>
<td>9. Low and poor prices</td>
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<td>10. High market fees charged by country council</td>
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<tr>
<td>11. Inability to conduct market research</td>
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<tr>
<td>12. Perish ability of produce before they reach the market</td>
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<tr>
<td>13. Lack of transport to the market</td>
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<tr>
<td>14. High transport charges to the market</td>
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<tr>
<td>15. Lack of government support</td>
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<td></td>
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<tr>
<td>16. Others (please specify)</td>
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</tbody>
</table>

7. Rank the following horticultural marketing problem according to the extent of importance to you. The most important should be ranked number 1, the second most important number 2, in that order.)

Lack of marketing information on prices and marketing opportunities ( )
Brokers and middlemen ( )
High transportation costs to the market ( )
Low and poor prices due to competition and overproduction. ( )
Other please specify .................................................................
8. (a) Tick the statement(s) that indicate what you are doing to solve the above problems listed above.

- Conducting simple market research
- Proper and careful handling of the produce.
- Engaging in aggressive personal selling because advertising is very costly.
- Selling directly to the market to avoid middlemen exploitation.
- Monitoring market prices.
- Selling as a group to have a stronger bargaining power.
- Get government help
- Others (please specify) .................................................................

Thank you very much for your co-operation
## Appendix 3 - Research work plan

<table>
<thead>
<tr>
<th>Activities</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Proposal Writing</td>
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<tr>
<td>Proposal Presentation</td>
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</tr>
<tr>
<td>Data Collection &amp; Analysis</td>
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<tr>
<td>Report Writing</td>
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<tr>
<td>Thesis Submission</td>
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</table>
### Appendix 4 - Budget

<table>
<thead>
<tr>
<th>NO.</th>
<th>ACTIVITY</th>
<th>COST ESTIMATE (KSH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PROPOSAL WRITING</td>
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</tr>
<tr>
<td>2</td>
<td>BOOKS, LIBRARY SERVICES, INTERNET FACILITIES ETC.</td>
<td>10,000.00</td>
</tr>
<tr>
<td>3</td>
<td>DATA COLLECTION</td>
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<tr>
<td>4</td>
<td>DATA ENTRY AND ANALYSIS</td>
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</tr>
<tr>
<td>5</td>
<td>REPORT WRITING</td>
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</tr>
<tr>
<td>6</td>
<td>STATIONERY EXPENSES</td>
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<td></td>
<td>SUB TOTAL</td>
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<td>7</td>
<td>OTHER INCIDENTAL EXPENSES</td>
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<tr>
<td></td>
<td>TOTAL</td>
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