FACTORS INFLUENCING THE EFFECTIVENESS OF FARMER GROUPS IN THE CEREALS MARKET: THE CASE OF IMENTI NORTH DISTRICT, KENYA.

BY

MIRITI OSWALD MURITHI

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DECLARATION

This research project is my original work and has not been presented for an award of a degree in any other institution of higher learning.

Signature _____ 2/8/2012

MIRITI OSWALD MURITHI Date

L50/60903/2011

This research project has been submitted for examination with my approval as the supervisor.

Signature _____ 2/8/2012

DR HARRIET KIDOMBO. Date

Senior lecturer,

School of Continuing and Distance Education,

University of Nairobi.

DEDICATION

This research proposal is dedicated to my dear wife Pauline Kiende for her moral support and understanding. To my daughter Mitchell Gatugi who has been my inspiration.

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ACRONYMS AND ABBREVIATIONS

GDP	Gross domestic product
FAO	Food Agricultural organization of United Nations
FO	Farmer organization
MOA	Ministry of Agriculture
NGOs	Non Governmental organizations
UN	United Nations
WB	World Bank

ABSTRACT

The primary aim of this study was to identify the underlying factors that affect farmer groups to improve their performance and the market situation. Specifically, the study aim to examine the extent to which certain group characteristics and asset endowments facilitate collective action initiatives to improve group marketing performance in cereal sector. This study was investigating the effectiveness of farmer groups and its influence on cereal market in Imenti north district. The study sought to determine factors such as leadership, physical location, group composition, group assets that influence effectiveness of the groups in the cereal sector. The study was be descriptive in nature and employed both quantitative and qualitative to the data analysis. The study also looked at the challenges facing farmer groups with a view suggesting recommendations for future development. In order to achieve good result, instruments used included questionnaires and interviews. The research instruments were developed to measure particular variables against each objective, and then the data was collected. The study respondents were farmers from selected groups, traders, millers and ministry of agriculture officials from Imenti North. The data collection, analysis and interpretation, enabled the understanding of farmer groups and their real issues. There is a strong correlation between the leadership and the group effectiveness as good leadership led to higher profit margins and large sales due to available market information as depicted by a positive 0.695 coefficient. Physical location, group composition and group assets shows positive correlation indicating that they influence the performance of the group. The research recommends that farmers themselves must form and participate in strong, local marketing associations in order to receive a fairer value for their produce. By organizing, farmers can access information needed to produce, add value, market their commodities and develop effective linkages with input agencies such as financial service providers, as well as output markets.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study.

Different forms of organization and groupings of farmers is an ancient phenomenon in Africa, and the traditional forms of groupings for mutual help in the village level still exist in local communities. The modern and juridical concept of farmers' organizations was created in the colonial era and has taken various forms under different contexts provided by the state. The most common form of farmers' groups has been that of a development instrument employed for the implementation of government policies that often were biased towards certain crops and regions of production, which in turn was reflected in the uneven development of producers' organizations Spencer (2002) estimated that 90% of all agricultural production in Africa is derived from the output of small-scale farmers. The situation is probably not so different in 2012, and the small-scale farmers of Africa continue to represent a huge resource of labor and land. Studying the producer marketing organizations Berdegué et al (2005) found that in Chile and Central America the great majority of these organizations fail. They noted that it was relatively easy to form organizations and even for them to facilitate initial access to supermarkets. But the problem lay in finding the right combination of managerial expertise, physical investment and organisational approaches to stay in the market and survive.

Farmer groups of Kenya is a strategy used by the current Kenyan government to maximize the efficiency of its agricultural production by spreading newly developed technologies to farmers as well as setting up common goals and developing new strategies. In recent years, private sectors and NGOs have been increasing their involvement in the farmer-group approach. Maximizing the agricultural outputs is very important in Kenya because the economy, its development and the GDP of Kenya heavily rely on its agricultural outputs. As a part of the agricultural extension services, the Government created the National Agricultural Extension Policy (NASEP). The Governmental branch since the late 1990's has encouraged farmers to interact with each other while sharing knowledge, resources and experiences by using the Farmer-Group approach. An ideal farmer group would maintain the number of its members between twenty and thirty. Farmer groups have no facilitators or specific structure of how their meetings are supposed to be run. Although it can be argued that such lack of deliberate

structure for these groups could eventually result in giving participant-farmers more freedoms to speak out and share their knowledge, resources, and experiences, surveys have shown over time that it has been a weakness for the strategy. Nonetheless, since the introduction of farmer groups, agriculture in Kenya has been making a steady improvement.

The formation of farmer groups in Imenti North district has been engineered, either, by externalities, such as the presence of donor funding through NGOs as intermediary beneficiaries, or, in some cases by farmers to solve challenges they face. In the latter cases, the idea of groups is copied from experiences of existing groups in the neighborhood, friends or relatives that belong to such groups. Other reasons that may have enhanced the formation of farmer groups are access training in improved husbandry practices, to pull resources together and address their challenges, to address food security issues, to help one another in case of need (such as sicknesses, burial ceremonies and school fees requirements), to carry out collective procurement of inputs and marketing of produce, to ease work for groups that carry out communal cultivation and also to make monthly savings. It also seems that the quality of farmer groups is associated with the founding reasons for the group (Ministry of Agriculture 2011).

Most farmers and especially smallholder are inadequately informed due to inadequate farming skills; farmer orientation and access to the information sources that could help them understand the current trends in agriculture production. Most of them are also subjected to inadequate access to farm credit facilities, and lack of organizations. There is a great need for smallholder farmers to search for solution in attempting to enhance production levels. Solutions that can improve and enhance agricultural production revolve around collective action. So there is a need for formation of farmer groups, looking for financial support from micro-finance institutions, access to information, establishing linkages with non-governmental and private organizations so as to help in improving agricultural production (FAO 2006).

This change in roles has come about primarily because the small-scale farmer has now been recognized as a primary player in a successful and sustainable agricultural development strategy. The farmer is being viewed, by development agencies, as one who not only is a beneficiary, client, and/ or co-learner in agricultural extension efforts but as one who is also a potential contributor of valuable cultural, traditional agricultural, and environmental wisdom which could define a more relevant technology and the successful adoption of the technology.

In the case of marketing, individual rural farmers often produce small quantities of produce, production is seasonal, and markets are distantly separated in space. Infrastructure for transport and communication is poor, and, therefore, costs associated with transfer and transport of commodities is high. Exchange functions of agricultural products often involve participation of middlemen in the marketing chain with intricate information networks further weakening the producers' bargaining position. It is envisaged that collective marketing facilitates economy of size which help to reduce the costs of getting the produce to the market and improve also the bargaining power of producers. Marketing can be organized informally (small groups of farmer) or formally (cooperatives), thus permitting the collective commercialization of products.

Furthermore, collective action can be used also to increase business opportunities by facilitating access to information and to markets, providing informal access to credit, and reducing transaction costs by bulk handling of produce for easy of transportation. Working in groups can include joint investment in buying, constructing, or maintaining local infrastructure and technologies, setting and implementing rules to exploit, and sharing information (Knox and Meinzer 1999). The information would not only be useful to the groups themselves but also to the different types of organizations that worked with these groups. Information and insights provided by the stakeholders therefore, help to better focus on the research so that the outputs from this work have enhanced practical utility and could be used for improving livelihoods and reducing poverty among the communities.

1.2 Statement of the problem

Currently in Imenti North District most of the existing farmer groups or associations are not active and capable of influencing the market. In terms of capabilities, this seems to be the major hindrance affecting the quality of farmer groups. Quality is looked at in this case in terms of farmers' ability to actively participate and demand what is due to them at local and national level. The farmer groups lack access to market information, and most members from groups are not adequately organized. They do not have strong financial base to carry out the activities needed to improve development in the agri-business sector. Most farmers have not made efforts to establish strong links with the development partners as a strategy for enhancing growth in the agricultural sector. Johnson (2005) argues that in remote rural areas markets may fail because they maybe too "thin", or the risks and costs of participating

especially for poor people may be too high, and or there maybe social or economic barriers to participation.

With the decline of cooperatives and other farmers' organizations, many farmers lack a collective voice. They cannot access affordable production inputs such as finance, technology, and are locked out of markets. As a result, a large number of farmers live in poverty and cannot influence policies that affect their livelihoods. Strong and vibrant farmer groups can provide opportunities to farmers to effectively play a role in the market economy and benefit from it. However, identifying and promoting authentic farmers' organizations that empower smallholders, is a big challenge for governments and their development partners. Most groups are hastily formed, often with no regard for the social-cultural and economic structures of the farming communities. Such groups are not viable and incapable of serving as channels through which farmers can take part in decision making.

Internal governance of farmer groups may also be a challenge. Farmer institutions must show democratic governance in their leadership and transparency in financial management. They need proper physical and financial records and their interpretation. In addition, they need to look at farmer institutions as channels for enhancing their farming businesses and socio-economic development and not limited to social cohesion of members. These are challenges that government, donors and non-government institutions interested in supporting farmer institutions have to address. As stated by. Penrose- Buckley (2007) a strong sense of ownership and trust of the leadership among members is said to be critical for effective functioning of the groups.

However, the majority of the farming community in Imenti North (comprising of smallholder farmers), suffer from lack of knowledge and capabilities which impinges on their participation and bargaining power in spheres that affect farmers' livelihoods. As a result, farmers do not know what to demand for, they are incapable of monitoring projects designed for their benefits, and cannot carry out value-for-money audits. These weaknesses derail farmers' development efforts and exclude them from the decision making process which influences the group development path. Growing evidence and experience indicate that sustaining success in productivity-based agricultural growth critically depends on expansion of market opportunities (Gabre-Madhin and Haggblade, 2004) and requires thinking beyond productivity to incorporate profitability and competitiveness.

1.3 Purpose of the study

The purpose of the study was to undertake an analysis of influencing factors that affect the performance of farmer groups in Imenti North District in the cereals market.

1.4 Research objectives

The objectives of the study are:

(i) To determine how group leadership influences effectiveness of the farmer groups in cereals market in Imenti North District.

(ii) To establish how physical location influences effectiveness of the farmer groups in cereals market in Imenti North District.

(iii)To investigate how group composition influences effectiveness of the farmer groups in cereals market in Imenti North District.

(iv)To determine how group assets influence effectiveness of the farmer groups in cereals market in Imenti North District.

1.5 Research questions

The study is guided by the following questions:

(i) In what way does leadership influence effectiveness of the farmer groups in cereals market in Imenti North District?

(ii) To what extent does physical location influence effectiveness of the farmer groups in cereals market in Imenti North District?

(iii)To what extent does group composition influence effectiveness of the farmer groups in cereals market in Imenti North District?

(iv)In what way do group assets influence effectiveness of the farmer groups in cereals market in Imenti North District?

1.6 Significance of the study

The research will be of the significant to the farmer groups in the cereals market. The findings and recommendations of this study will enhance strengthening of farmer groups and shape the market of cereals. The beneficiary of this study will be farmers, researchers and policy makers. For the farmers it will help them to understand how groups can influence the cereals market and the underlying factors that determine the group effectiveness. The study will be able to have the information for further research by raising other issues and gaps that need to be filled. The policy makers will get information that will direct them in formulating policies

that will help to grow farmer groups and the cereal sector. Through the understanding of variables contributing to effectiveness of farmer groups pertaining cereals market, it can be of importance to extension officers from the government institutions and private sector in implementing related projects.

1.7 Basic assumptions

The data collection instrument was valid and reliable and was used to measure the desired result. The study has true reflection from the farmers and did not raise false expectation from the farmers. The relevant government departments and stakeholders were willing to provide the required information without being forced. The study also assumed that it is only those four factors that influence the effectiveness of farmer groups in the cereals market in Imenti North District. However, there are several other factors that influence the performance of the groups which the study left out.

1.8 Limitations of the study

The study was limited to descriptive research design adopted which only describes the objectives of the study and not their causes. Time allocated was not be enough to collect the data from the entire population, therefore it was not be possible to conduct census, so a small sample was chosen to represent the entire population, which was cheaper and time efficient.

1.9 Delimitation of the study

The study targeted 21 farmer groups and was undertaken in Imenti North District mainly in cereal zones. The study also focused on traders and millers who buy from these groups and ministry of agriculture officials. The scope covered the following objectives; leadership, physical location, group composition and group assets. Therefore, this study was focused on factors influencing the effectiveness of farmer groups in the cereals market in Imenti North District.

1.10 Definition of significant terms

Agri-business: is a generic term for the various business involved in food production, including farming and contract farming, seed supply, agrichemicals, farm machinery, wholesale and distribution, processing, marketing and retails sales.

Cereals: are grasses (members of the monocot family also known as gramineae) cultivated for the edible components of their grain that is whose starchy grains

are used as food: in this particular study maize, millet and sorghum are the ones being considered.

Cereals market: sellers offer their goods (cereals) in exchange for money from buyers. It can be said that cereal marketing is the process in which the prices of cereals are established.

Collective action: is the pursuit of a goal or set of goals by more than one person; in this case the farmer.

Farmer group: is a collection of farmers with a common objective or problem to solve, which is often associated with the production and marketing of agricultural products.

Farmers' organisation: a formal voluntary membership organization created for the economic benefit of farmers (and/or other groups) to provide them with services that support their farming activities such as: bargaining with customers; collecting market information; accessing inputs, services and credit; providing technical assistance; and processing and marketing farm products.

Group assets: a group asset is a set of materials or devices that can be associated with one another for business purposes.

Group composition: is usually considered in terms of how individual member characteristics will affect group cohesion or compatibility and subsequently how the group members interact.

Leadership: is process of social influence in which a person can enlist the aid and support of others in the accomplishment of a common task. In this situation, more than one person provides direction to the group as a whole.

Physical location: is something that specifies a physical place. It's an area which often has a defined boundary relying more on human/social attributes of place identity and sense of place.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on farmer groups and their effectiveness in dealing with the markets of their produce and shows how collective action has influenced the efficiency of the groups. It reviews the studies concerning leadership and governance of the groups, the location of the groups, the composition and their assets in contribution to the performance of the group. The chapter also presents the conceptual framework of the study.

2.1.1 Leadership and groups' decision making

According to Penrose-Buckley (2007) strengthening governance and leadership in supporting farmer groups to identify the most suitable rules and legal structure for their needs is important. However, it is of little use unless members understand these rules and are able and motivated to participate in decision-making. Strong leadership is essential for the effective governance of farmer groups, and leadership capacity can be improved by developing the management skills and business understanding of leaders. The groups with active members' participation and strong commitment perform successfully. Since members' participation is determined by the level of benefits and incentives enjoyed through their membership, it is important for the groups to focus on fulfilling members' needs and expectations related to the group activities. Similarly the ability to offer economic benefits to members is essential to sustain any farmers' groups (FAO, 2006). As stated by Boas and Goldey (2001), the danger with groups created through external help, without the real commitment of the members and managers, run a great risk of falling apart if the external assistance is completely removed. One of the most important factors that motivate farmers to take part in associations is the expectation that they get benefits from their membership, or the main function of any organization is the provision of collective goods for their members.

Decision making in response to competing demands takes place in the governance structure that is contingent on the division of (formal and informal) authority between the members, the board and the professional management staff. The research on farmers' organizations focus more on external influences and dynamics at the interface between downstream parties and

organized farmers and the emerging characteristics and functions of cooperatives in dynamic markets (Ostrom and Ann 2009). Henehan and Anderson (1994) make a further distinction in demands of other constituent groups than only member and board, especially the role of management, capital providers and employees, and the product market demands, as a result of the presence of competitors and the dependency on other stakeholders in the value chain. They also add a dynamic element when making a distinction in different phases of cooperative development, with different roles and authority of each of the constituency groups. The focus of the cooperative will be on problem-solving in its start-up phase, and later on be more internal-oriented on performance of the activities that are taken up, contingent with an external orientation on markets and other stakeholders (Henehan and Anderson 1994).

2.1.2 Transparency and accountability

Lack of good practices and ethics of managing group enterprises by the group leaders, often carrying out their functions with little or no respect for accountability and transparency principles, misuse of authority and group finances by the leaders inducing mistrust were alleged to be some of the main reasons for ineffectiveness/failure of some groups in Bhutan (Norbu, 2008). Wongsurawat (2011) identified members' drive for business ownership, systematic division of work, regular accounting records, intelligent marketing plans, and achievement of some kind of quality. In spite of all the inherent problems of collective action, people in real-world collective action situations have managed to cope with them. Economic farmer organisations that realise their activities as some scale will necessarily have developed procedures and incentive structures, e.g. related with pricing, payments, and quantity or quality requirements, that 'work' for both members, the group and their value chain partners.

2.1.3 Governance

Organisations deal with the member from multiple positions in multiple agency dilemmas that often create 'paradoxes' to be coped with through the group's governance. The essence of any principal-agent dilemma in farmer groups is that the members want the organisation to do some things for them (e.g. selling their produce for a good price), and need to have some assurance that the organisation does this well. The organization wants the member to do something (e.g. provide good quality products) and, in these situations, a workable 'middle-way' has to be found to make the deal acceptable both for the member and for the

organisation. Nevertheless, studies on cooperatives in the developed countries have generated insights on the tensions in the governance structure in smallholder farmers' organizations (Shapiro, 2005).

Experiences in social networks are often a self-governing systems in many area of social interaction tend to be more efficient and stable not because of any magical effects of grassroots participation itself but because of the social capital in the form of effective working rules those systems are more likely to develop and preserve the networks that the participants have created and the norms they have adopted. Simply agreeing on an initial set of rules is rarely enough. Working out exactly what these rules mean in practice takes time. Part of learning through experience is what happens when things go wrong" (Ostrom and Ahn, 2009)

2.1.4 Monitoring and Evaluating the Farmer groups Progress

The need to watch for people who want to take over the farmer groups for their self-interest. It is important to take action against any negative influences. These monitoring or reflection processes help strengthen farmer group and avoid self-defeating problems. Learning organizations are created through collective reflection and openness on financial and the other managerial matters (Senge, 1990). For techniques on participative planning and community consultation, it is necessary to guide the community in a positive direction to develop working strategies. Several methods are available, such as SWOT (strengths, weaknesses, opportunities, and threats) analysis, prioritizing, and action-planning methods (Carman and Keith, 1994).

2.1.5 Relationships with key partners

Thus, it is important for farmer groups to tread carefully when partnering with outside agencies, and the method of engagement between farmer groups and external agencies is critical. Kindness and Gordon (2001) suggest that the role of outside agencies should be a facilitative one, not an interventionist one. Partnerships should provide intensive "software" support, in which external actors accompany and advise farmer groups over a long period but do not intervene directly in decision-making. Such collaborations can also help existing organizations become more empowered and more capable of representing the interests of their members in key policy arenas. Thus, farmer group management should be independent from government and donors, while still maintaining close cooperation at the operational level, and

farmer group should have clear and enforceable rules separating political interests and external pressures from its leadership (Thompson *et al.*, 2009).

2.1.6 Groups management in dealing with trading contracts

This organisational social capital manifests itself in 'trust' between the parties in a collective action situation and enables the containment of the multiple agency dilemmas that are active in that situation: the 'contracting' parties agree on the conditions and accept the level of risk that is inherent to a complex transaction. Nooteboom (2002) makes a useful distinction between two ways to convince parties to agree on contracts that are complex and essentially incomplete that will work in combination: incentive-based relational contracting and trust-based relational contracting. The first type relates to 'calculative trust' (Williamson 2002) and indicates the importance of workable internal regulations, contracts and controls, e.g. about quality assurance, price determination, political representations, etc. The second type relates to 'trust in the strong sense' (Nooteboom 2002) and points to motivation of principals to accept the risk of opportunistic behaviour of agents even when there are opportunities and incentives for it. Another institutional barrier for trade is the weak institutional framework for following and enforcing trading agreements between unknown parties. In many developing countries where laws and legal capacity to enforce them are inadequate informal relations can substitute for courts allowing deals to be made (Greif 1997).

According to Kirsten and Sartorius (2002) causes of failure of contracts include:

Contract abuse: Side-selling is a common reason that longer term arrangements breakdown. The offer of a higher price from alternative buyers is a strong incentive to break a contract. The issue of side-selling is most easily avoided in crops or regions with only one buyer. But the other side of contract abuse is the non-payment, delayed payment or even reduced payment of the delinquent contractor.

Cost of managing the scheme exceeds the benefit: This is particularly true of scattered holdings of small players where the infrastructure is inadequate and transaction costs spiral upwards.

Lack of motivation in the participants: Both sides must achieve an adequate reward and any intermediaries, agents or staff must be fully engaged in the outcome of the scheme.

2.2 Physical location of the group

It is necessary to appreciate that "extension markets" are governed by factors such as agro-climatic variations, infrastructure development, and the strength of market forces. FOs operating in desert regions, single-crop rain fed areas, and predominantly irrigated areas will have different occupational and extension needs; therefore, variable response patterns to extension have to be anticipated (Gupta, 1985). Similarly, FOs operating in food-deficit and food-surplus stages will have different roles, expectations, and returns.

2.2.1 Market factors and the location

Delgado (1995) Lack of infrastructure and thus high transaction costs is a well-known problem in the developing world; especially in Africa market reforms alone are not sufficient as high transaction costs leave the countries only semi-open. A common argument in favour of infrastructure development is that trade liberalisation policies would yield much greater responses if aided by investments in infrastructure which would, first of all, decrease the transportation costs and, secondly, integrate the currently isolated households (Key et al. 2000).The poor condition of the transport network affects disproportionally the rural women and children, who are responsible for a large proportion of the transport burden but have limited access to transport aids (Runyoro and Mwankusye 1997). Most cities and regional markets cannot be reached by a good road throughout the year which bids up the cost of transport to these areas creating an additional market barrier the producers in the area need to face if they wish to sell their products to the national market. As noted by Kruger *et al.* (2002) "you pay for good roads whether you have them or not". Due to largely varying condition of the road network, the ongoing market price for transportation is often higher than the official estimates which are based solely on the distance. The cost of transport is at a competitive level and the prices are common knowledge for the local transporters and traders.

According to Kaplinsky (2000) marketing of agricultural products is an important factor that can influence on agricultural product growth, very deep and remarkable .So for him, the improvement is one of element which composing a portfolio of investment that could affect the productivity .The lowest of productivity affect the commercialization level, but the lack of production growth is a major handicap about production growth. Once the harvested products are not sold due to the transport means or infrastructures that can facilitate their transportation then, the farmers anticipate the next harvest in function of their needs and the quantity that

could be exhausted at the market. Market factors include information that ensures improved market access, (market information), number of market channels a farmer sells to for different crops, distance to the market. These are likely to have a multi directional effect on participation in markets and the value of sales from the market. Knowledge of the market price alleviates uncertainties associated with market price (Maltsoglou and Tanyeri-Abur, 2005) while the number of market linkages for a single product is likely to increase the participation and value of sales from the market. In Uganda, information asymmetry was found to be a major challenge (Nkonya and Crammer, 2002). However, affiliation to organizations which facilitated market linkages improved access to market information including product price, quality, quantity, and which markets to sell to, although this market information provided by these institutions is often specific to the mandate crop of the institutions. Distance to the market is hypothesized to have a negative impact on participation in the market and value of sales from the market because further distances discourage participation in the market. Evidence from other studies is location specific; Makhura et al. (2001) did not find any significant effect of the distance to the market on participation and value of sales to the maize markets, while Nkonya et al. (2004) found a positive association between income and distance from an all weather road in Uganda.

Market access proponents make a strong case that, for small farmers to thrive in the global economy, it is necessary to create an entrepreneurial culture in rural communities (Lundy et al., 2002). This means shifting the focus from production-related programmes to more market-oriented interventions. This has placed renewed attention on institutions of collective action, such as farmer groups, as an efficient mechanism for enhancing marketing. The success of an FO depends very much on its ability to integrate into the wider economy and participate effectively in the relevant market chain or chains. As Vorley and Proctor (2008) suggest, market inclusion is not just about market access. Sustained market inclusion is much more difficult and requires stronger linkages between producers and consumers and other actors in the market chain, along with responsiveness to what the market wants and may require. A good business rationale based on commercially viable activities and strong relationships with the private sector are key for FOs to succeed in achieving their economic and market-related objectives. In a review of FOs, Hussi *et al.* (1993) concluded that FOs must be treated as private enterprises.

It is now increasingly evident that smallholder farmer's key concern is not only agricultural productivity and household food consumption, but also increasingly better market access. Virtually all the African farmers depend on trading for some household needs, and hence seek income generating activities. Enhancing the ability of smallholder, resource-poor farmers to access market opportunities, and diversify their links with markets is one of the most pressing development challenges facing both governments and nongovernmental organizations (Kindness and Gordon, 2002). Lele (1976) has observed that, "Marketing cooperatives have been generally effective in dealing with traditional cash crops such as sugar, cotton, tobacco and coffee," but they have "failed to make a headway in marketing food crops" . She continues to argue that because cash crops usually require further processing and are normally exported from the producing region, they offer greater possibilities for vertical coordination and centralized marketing. Also, centralized marketing is often easily integrated with the provision of credit which further strengthens the marketing organization. On the other hand, food crops produced on small farms are often sold in local markets with little or no processing. Hence, fewer possibilities exist for increasing net returns to farmers from group marketing. Lele (1976) notes that, differences in the marketing of cash and food crops indicate that developing food (primarily grain) marketing cooperatives is "a difficult task and must be handled gradually and carefully". She continues: "It is counterproductive to push cooperative development too rapidly as it usually backfires, frequently making cooperatives the haven of government subsidies and a barometer of inefficiency, in which the relatively more efficient private trade can survive relatively easily, defeating the purpose of augmenting competition among channels of marketing."

2.3 Group composition

Gupta (1985) is helpful when he focuses on the multiplicity of member interest as a key feature that generates tensions to be resolved by effective incentive structures. He highlighted the heterogeneity of membership groups in a cooperative, and introduced the concept of a cooperative as a coalition. In his game-theoretical approach, subgroups of members have different objectives and need to negotiate a compromise in the decision making process. According to Gupta (1985), the cooperative has three typical challenges derived from this: the common property problems related with free-riders: new members having the same rights than older members, horizon problem: a member can opt out of the cooperative and therefore

prefer lower but short-term benefits above higher but mid-term benefits, the portfolio problem: tendency to reduce the investments to only the ones that provides more benefits and less risk for each subgroup of members.

The different tensions will operate in combination and in response to dynamic changes in the complex social system that each farmer organisation is. In the theory on complex adaptive systems, the capacity of the system to contain disintegrative tendencies in the wake of changes is called 'resilience'. Resilience is the capacity of a system to experience shocks while retaining essentially the same function, structure, feedbacks, and therefore identity. It follows Holling (1973) notion of resilience as the amount of disturbance a system can absorb without shifting into an alternate regime. Walker (2006) This notion helps to see that collective marketing groups might face a multitude of problems, have reorganisations, changes in tasks and staff and may make haphazard improvised internal changes on internal regulations and that this does not imply that they are weak. Even to the contrary; this capacity to adapt is the backbone of resilience, not the conservation of some pre-fixed organisational format or plan of action.

Penrose-Buckley (2007) notes farmer group capacity need to be strengthened, they need support to develop marketing strategies that reflect members' priorities and willingness to take risks and that build on the FO's competitive advantage and capacity. The choice of markets and marketing strategy will affect who can participate in farmer group activities, and complementary development activities may be needed to ensure that poorer producers, women and other marginalized groups have the opportunities and capacity to participate in groups. Capacity in business planning (to analyse business and market systems and develop realistic and sustainable business strategies) is essential for farmer groups to become profitable and benefit their members. Many farmer groups fail because they do not analyse their business costs carefully. Thus, support is needed to help farmer groups develop effective business management systems to ensure they can meet financial obligations to members and service providers.

Gotschi (2006) notes group size can also affect cohesion, group that is too large may find that members cannot get the recognition they are looking for. This can lead to the formation of subgroups or cliques which further causes members to withdraw or withhold input. It is an act

of protest because he or she may feel that their achievement is being used to raise the credibility of the whole group, or because there is a feeling that members are not pulling their weight. The appointment of individuals to a group based on their compatibility, diversity, or expertise does not assure effectiveness in achieving group goals. A group is initially a collection of personalities with different characteristics, needs, and influences. To be effective, these individuals must spend time acclimatizing themselves to their environment, the task, and to each other.

Olson's (1971) argument in favour of small groups is actually a corollary of the effect of inequality. Namely small groups are more likely to be successful because the distribution of benefits is more likely to be unequal and so as discussed above, it is more likely that there is some individual who is willing to pay the full cost of the public good. Size, however, can also have direct effects. On the one hand, the institutional features that make collective action successful, such as monitoring, are more easily implemented in small groups. On the other hand, there might be economies of scale in large groups. Granovetter (1985) trust-enhancing mechanisms outside the organisation, embedded in the social relations of members and staff, like cultural and political group identification, can be important underpinnings for economic transactions between members and their organisation.

2.4 Group assets/resources

Farm size is expected to have a positive impact on production, and thereby directly influencing market participation and the value of sales from the market. The influence on the amount of land cultivated is expected to be enterprise specific .Evidence from various studies have found that farm size positively motivated participation in- and the value of sales from the market, for high value produce, contract farming (Masakure and Henson, 2005).

Shanner et.al (1982) have reported that, farmers with limited resources often do not adopt new technologies due to: " their conditions are not like those where the technologies are developed, they do not have resources to purchase the required inputs, the technologies do not apply to the crops grown or the livestock raised on their farms or the way they operate, or they do not know about the new technologies. FAO, (2006) under utilization of the prevailing farm resources; the subsistent crop production and extensive livestock management systems found

that in most development countries could be intensified through improved farm management practices. Competitiveness in agriculture could enhance by good post- harvest management practices. Lack of storage and processing, facilities has limited the farmers' potential to add value to their produce to enhance competitiveness. The low use of fertilizers, improved seeds and other farm inputs has resulted in low productivity in agriculture sector. The persistently declining commodity prices have adversely affected input use profitability. Some of the concerns raised by smallholders as hindering input use include high seed and fertilizer prices, substandard inputs in the markets and presence of unscrupulous input dealers. The improvement of physical infrastructure such as roads, etc as well as related trade facilitation arrangements is very critical to increase agri-business competitiveness.

2.4.1 Socio economic factors

Farmer group structures create social networks and transform social resources into tangible and intangible assets (Gotschi, 2006) such as access to services that include extension, credit and markets (Shepherd, 2007). Technical skills provided to farmer groups on crop specific production methods are hypothesized to have a positive influence on income (Masakure and Henson, 2005). Higher intensity of social capital factors within farmer groups (such as belonging to groups, paying membership fee, and number of meetings held), is likely to enhance access to markets, through improved economic viability of marketing. According to studies from SACRED Africa (2004) lack of market of products or information, difficulty in complying with quality control standards, poor access to transportation and host of unnecessary transaction costs. These difficulties may only be overcome through farmers' collective action.

2.4.2 Individual constraints

Furthermore, as emphasised in the theory of the New institutional economics, transaction costs are often actor specific, and all producers, traders and buyers make their decisions based on the price and transactions cost that are specific for them instead of reacting to a uniform market price. A case study from Madagascar (Barrett 1997) found that the rural marketing chains were defined primarily by social identity, which made the impacts of the trade liberalisation different depending on the population subgroups. A widely discussed theme in the field of individual constraints for trade and moving away from subsistence farming is also

households' access to credit and ability to smooth consumption to allow for time lag between production and cash income from selling the produce, as well as improved capacity to bear risk involved in market transaction. However, in the poor rural areas the supply of formal credit is inadequate due to problems with asymmetric information and contract enforcement. In absence of reliable credit market, producers resort for alternative coping strategies. Farmers differ in their ability to sustain risk and crop choices are related to differences in risk aversion (Binswanger 1980). In the presence of risk in marketing decisions risk adverse families may maintain subsistence production beyond the optimal level in order to keep the risk of market failure low. In other words subsistence farming is used as a substitute for insurance and credit markets. However, improving opportunities for non-farm activities go hand in hand with improving access to markets where besides trade in agricultural goods also trade in other goods and services take place. "Removal of constraints to and expansion of possibilities for diversification are desirable policy objectives because they give individuals and households more capabilities to improve livelihood security and to raise living standards" (Delgado 1995).

2.4.3 Financial Services

Poor access to financial services is another factor which contributes to the low production and competitiveness. Many developing countries, the low asset base of producers has inhibited from accessing financial services. Use of farm credit has been declining partly due to poor access to financial services, high cost in borrowing and high risk linked to agricultural credit (FAO, 2000). According to Masakure and Henson (2005) for agricultural exploitation cooperatives, the factors that prevent farmer groups to get sufficient incomes are the following: the climate conditions can favorably or unfavorably influence to the agricultural production, the lack of market for exhausting the production and there is also a lack of marketing movement.

2.4.4 The role of collective action in managing resources

Local institutions for collective action are not only fundamental for agri-business, (Scones and Thompson, 1994), but they function in diversity of ways including; Organizing labor resources for production and reproduction, Mobilizing of material resources (savings, credit) to help produce more, assisting newly formed groups to access productive resources, Securing

sustainability in natural resource use, providing social infrastructure (roads...) for communities at the village level, improving access to information for rural population, improving flow information between them and NGOs and Government, cementing social relationships, providing a framework for joining effort and action, helping people to organize their own knowledge in ways that it can be beneficial to them and useful for research, advocating for community rights, and mediating access to resources for disadvantaged and excluded groups of people.

According to Ostrom (1990), there is much empirical evidence to suggest collective action is successful in finding solutions to the problems of managing scarce natural resources. Barham and Chitemi (2009) focused on certain characteristics and assets endowments of smallholder farmers groups to assess how groups facilitate collective action initiatives to improve group marketing performance in Tanzania. The more mature groups with strong internal institutions, functioning group activities, and a good asset base of natural capital were found to improve the market situation.

2.4.5 Institutional framework

Finally, economic growth needs stable political and economic institutions that provide low cost of transacting in impersonal markets (North 1989). A common phenomenon found in several developing countries is the long supply chains caused by the personalised nature of trade and actor specific transaction costs. One way to mediate trade between unknown parties in absence of a regulatory framework is the use of middlemen. A study by Gabre-Madhin (2004) describes the supply chain in the Ethiopian grain market where brokers and middlemen play an important role in trade facilitation and lowering the transaction costs between unknown parties. The extensive supply chains and the use of brokers are not unique for Sub-Saharan Africa, but similar findings have been observed earlier e.g. in India (Lele 1976). The weak market institutions and long supply chains may lead to a large wedge between the price paid by the consumer and the price received by the producer. For example, Huang et al. (2002) analysed the real transaction costs in China by collecting empirical data from the market actors. They uncovered various domestic distortions prevailing in the Chinese markets and calculated new estimates for the nominal protection rates after interviewing traders, producers and buyers. The results show a significant difference between the official estimates and the real circumstances in the field. The idea of measuring true trade protection as it is

perceived by the producer is further developed in Milner and Morrissey (1999) where alternative methods for measuring trade protection are presented. A further point to note on the institutional framework for trade is that constructing binding trade agreements and enforcing the established contracts are part of transaction costs faced by the market actors. Decreasing other transaction costs e.g. by providing better access to markets might not lead to expected trade outcomes unless trade has been made possible by established rules for transactions. Lack of established rules obeyed by both parties leads to increased costs of transactions and thus works as a barrier for trade.

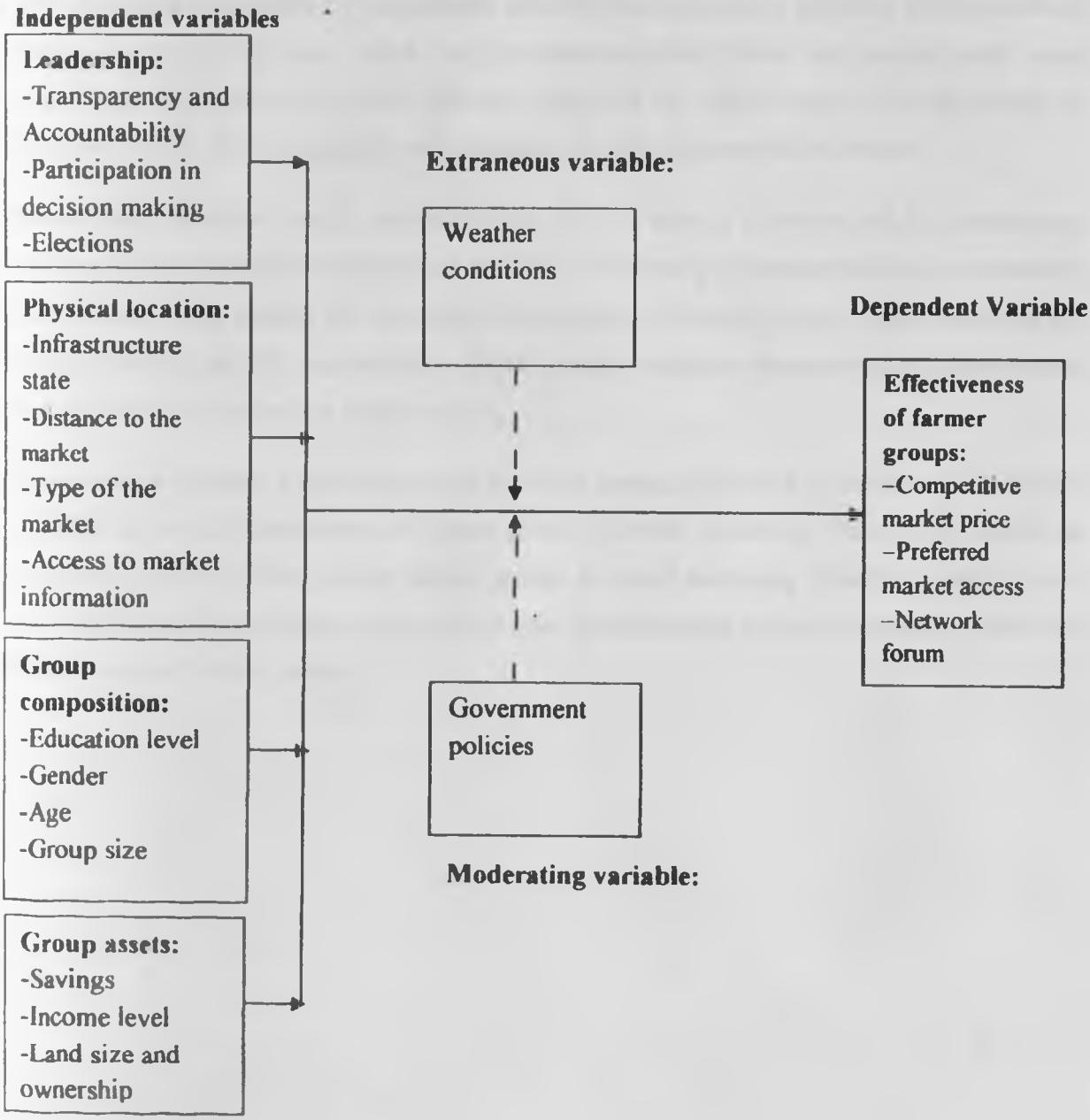
2.4.6 Agricultural Credit

It is a common observation that farmers in developing countries are unable to obtain credit, or that they can do so only at usurious interest rates. This is not, in itself, evidence of market failure. Interest rates will be high if the probability of default is high-which is indeed often the case. At the same time, the fact that there is imperfect information on the credit risks of different individuals (the adverse selection problem) and on the actions of those individuals means that the market equilibrium is not. Nonetheless, government policies to boost credit for farmers need to take account to these adverse selection and individuals means .The government is usually in no better position for gathering information on the varying probabilities of default. Furthermore, a government credit program that involves some discretion in the granting of loans also contains scope for giving subsidies to particular individuals: whenever a "high-risk" farmer is granted a loan for which the interest rate has not been increased accordingly, he is obtaining an implicit subsidy. It is naturally difficult for an outsider to judge whether a subsidy has been granted; precisely for this reason, such programs are open to abuse (Nagayets, 2005). Promotion of a savings culture savings have been identified as one of the factors that strengthen FOs. Savings provide a source of affordable credit where commercial lenders are not keen to lend money for agriculture despite its being the mainstay of the East African economies (Abaru et al 2006). Even in the few instances when agricultural enterprises qualify for loans, interest rates are too high for small-scale farmers.

2.5 Conceptual framework

This part gives a structural narrative description of the relationship between the variables forming the concept of the study on farmer groups' effectiveness. In this the framework below illustrates possible underlying factors influencing the effectiveness of farmer groups in the cereals market.

Figure 1: Conceptual framework.



2.5.1 Explanation of conceptual framework

Independent variable: this is the one the researcher makes changes in or manipulates in order to determine its effects or influence on the dependent variable. The variables involved in this study are, management, physical location, group composition, and group assets which form the independent variables.

Dependent variable: this is a function of the independent variable. It is a variable hypothesized as dependent on the changes made in the independent variable, effectiveness of farmer groups in this case forms the dependent variable. These are coupled with other intervening and moderating factors that also determine the effectiveness of farmer groups in cereal marketing. Their magnitude will determine the effectiveness of the groups.

Moderating variable: this is variable which kind of acts as a catalyst of the relationship between the independent and dependent variable in this case government policies sometimes do not fall neatly into context but can affect effectiveness of farmer groups, where members are expected to take up full responsibility of their groups, maintain momentum and cohesiveness that will in turn influence the cereal market.

Extraneous variables: have implications in farmer groups, they are a go between on variables contributing to the effectiveness of farmer groups in cereal marketing. These often cannot be controlled but they directly affect farmer groups in cereal marketing. Weather conditions are the variables in this particular case which despite the efforts that are put in place they affect the effectiveness of farmer groups.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter identifies the methodology that was used in conducting this research. It presents the description of the data and the procedure that was used to collect data for the study. It focuses on research design, the target population, sample and sampling procedure, data collection instruments and procedures. The chapter discusses how validity and reliability will be established. Finally it discusses methods of analyzing the data in regard to the research questions and also operationalization of variables which entails indicators and their measure, data collection methods, level of scale, type of analysis.

3.2 Research design

A research design is a program to guide in collecting, analyzing and interpreting observed facts. The research adopted a descriptive survey design. The descriptive research is undertaken with the aim of describing characteristics of variables in a situation. This design involves gathering the data that describe event and then organizes in tabular, graphical or numerical representation of data. The study used questionnaires and interviews during the field survey and ensured that all respondents answered all the questions truthfully and honestly.

According to Mugenda (2003), questionnaires are commonly used to obtain important information about the population. Each item in the questionnaire is developed to address a specific objective, research question or hypothesis of the study. So, it must be known how information obtained from each questionnaire item will be analyzed (Mugenda and Mugenda, 2003).

3.3 Target population

The target population of the study was 756 farmers who are members from 21 farmer groups distributed in the 2 divisions namely Miriga Mieru East and west Division of Imenti North District. The study also used key informants; these were 2 cereal traders, 2 millers and 2 officials from the ministry of agriculture in the District.

3.4 Sample size and sampling procedures

The study used purposive sampling to pick the Imenti North district as the area of study this is because cereal farmer groups within Meru County are more organised in Imenti North District. Purposive sampling of key informants in the interview was 2 cereal traders or millers and 2 officials from the ministry of agriculture. All the 21 farmer groups were used for this study. The sample size was achieved using this formula which was developed by Israel, (1992).

$N= N/1+N e^2$

Where n= the desired sample size

N= population of the study (total number of households)

e= sampling error

According to Mutai (2000) confidence interval will be taken as 95% allowing for 0.05 error tolerance margin.

So $n=756/1+756*0.05^2 = 262$

However, Singleton (1993) argues that most social research would recommend at least 100. It is on this basis coupled with financial and time constraint the researcher will reduce the sample size by half to 136 farmers. This sample is still representative to the population giving the desired characteristics since it cuts across all the area of study.

Table 3.1: Sampling Table

Name of the group	Population (N)	Sample size	½ sample size
Kioru Giaki energy saving	100	35	18
Utugi shg	32	11	6
Rugene cereal banking	20	7	4
Kamaku shg	30	10	5
Tuuti shg	88	30	15
Fadc murathankari	16	6	3
New bacala shg	24	8	4
Mwangaza shg	25	9	5
Young muriki wg	33	11	6
Ntanyaru shg	62	22	11
Imani shg	29	10	5
Mutethia business farmers shg	36	12	6
Manganya shg	32	11	6
Makena muungano	22	8	4
Thuura nutrition	32	11	6
Nkaniki wg	25	9	5
Mukamukira	57	20	10
Gitugu group	10	4	2
Nchaure progressive farmers group	27	9	5
Muriki young mothers shg	33	11	6
Kaimenyeeri shg	23	8	4
Total	**756**	**262**	**136**

Cereal *groups and membership database Source: MOA –Imenti North District, (2011).*

3.5 Method of Data collection

The questionnaire and interviews research tools were used in this study to collect qualitative and quantitative data. The questionnaire was developed by considering independent and dependent variables as well as intervening and moderating factors in this study. The questionnaires were administered using both structured and unstructured questions which were used to collect data from the respondents relating to the key objectives of the study. The choice of responses from the respondent was inserted in the questionnaire. In interviews it involved collection of data face to face from key informants. The authority was sought from the ministry of agriculture district offices.

3.6 Validity of the instrument

The expert was used to test the questionnaire and try out its validity. This was to help conceptualize the technical soundness and accuracy of the questionnaire, how big the questionnaire will and how much time will be required to answer the questions. Validity is an important element for research instruments, and according to Rodney (1998), an instrument is valid if it measures the concept that it supposed to measure.

3.7 Reliability of the instrument

This refers to the consistency of the scores obtained; how consistent they are for each individual from one administration of an instrument to another Fraenkel and Wallen (2008). The reliability was established through pilot study of instrument on (5%) of the sample before the instruments were finally administered to the respondents. This was done in order to test whether there were any items that the respondents had difficulties in understanding, inadequate wording, indentify the items that may have been omitted during the construction of the questionnaire and provided an indication on how the data collecting instruments performed in the field. The elimination, alteration or improvement was done based on the findings from this pilot study.

3.8 Data analysis techniques

After collecting the data the first step was to scrutinize the instrument for completeness, accuracy and uniformity to eliminate the errors. There was coding to classify the answer to a question in a meaningful category so as to bring out their essential pattern. Statistical Packages for Social Sciences was used to generate frequency distributions using descriptive statistics in order to examine the pattern of the responses. The qualitative data from interviews and open ended questions was organised in terms of instruments and categorized in terms of research questions. The emerging themes were indentified and described using the data search in which percentages helped in presentation and description. The analysis consisted of numerical values in which correlation analysis were made to bring out relative differences

3.9 Operationalization of variables

Table 3.2: Operationalization of variables

Research objectives	Type of variable	Indicator	Measuring of indicator	Data collection method	Level of scale	Type of analysis
	Dependent; Effectiveness of the farmer groups					
To determine does leadership influence effectiveness of the farmer groups in cereals market	**Independent;** Leadership	Transparency and accountability	Financial reports, Budgeting	Questionnaire	Ordinal	Descriptive
		Participation of members in decision making	Participation in decision making Communication channels	Questionnaire	Ordinal Nominal	Descriptive
		Elections	Participants in elections	Questionnaire	Ordinal Nominal	Descriptive
To establish how physical location influence	**Independent;** Physical location of the group	Infrastructure state	Roads state	Questionnaire Interviews	Ordinal	Descriptive

objectives	variable	indicator	Measuring of indicator	Data collection method	Level of scale	Type of analysis
effectiveness of the farmer groups in cereals market		Distance of the market	Distance in Km	Questionnaire Interviews	Ordinal Nominal	Descriptive
		Type of the market	Market type	Questionnaire Interviews	Ordinal	Descriptive
		Access to market information	Communication channels type	Questionnaire Interviews	Ordinal	Descriptive
How does group composition influence effectiveness of the farmer groups in cereals market	**Independent**; group composition	Education level	Levels of trainings	Questionnaire	Ordinal	Descriptive
		Gender	No. of males No. of females	Questionnaire	Nominal Ratio	Descriptive
		Age	Age bracket	Questionnaire	Ordinal	Descriptive
		Group size	No. of individuals in a group	Questionnaire	Nominal	Descriptive

objectives	variable	[illegible]	Measuring of indicator	Data collection method	Level of scale	Type of analysis
To determine how group assets influence effectiveness of the farmer groups in cereals market	**Independent**; group assets	Group Savings	Savings done	Questionnaire	Nominal	Descriptive
		Income level	Economic well being	Interviews	Ordinal	Descriptive
		Land size and ownership	Acreage No of people with land certificates and on lease	Questionnaire Interviews	Nominal	Descriptive

Source: Author (2012)

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter details the analysis, interpretation and presentation of the findings from the data. The data involved questionnaires received from the respondents and interview schedule administered by the researcher to the key informants. The questionnaires were given to the respondents which were duly completed and returned. Out of 136 questionnaires distributed 130 were filled appropriately and accepted for analysis constituting 95.6% return rate and for the 4 key informants the return rate was 100% hence this was considered adequate for the study. The data analysis was done according to the research questions of the study and analysed using frequency and percentages. The findings were then considered and interpreted using descriptions.

4.2 Profile of the respondents

Table 4.1 Gender of the respondents

Status	frequency	percentage
Male	78	60
Female	52	40
Total	**130**	**100**

The study established that a majority of the respondents were male at 60% of the total population and 40% were female.

Table 4.2 Age of the respondents

Age	frequency	percentage
Under 20	6	4.6
20-29	16	12.3
30- 39	43	33.1
40 -49	39	30
Over 50	26	20
Total	**130**	**100**

Over 83% of the respondents were 30 years and above with 4.6% being under 20 years. 20% of the respondents were 50 years and above.

Table 4.3 Marital status of the respondents

Status	frequency	percentage
Married	99	76.1
Single	8	6.2
Widowed	12	9.2
Divorced/separated	11	8.5
Total	**130**	**100**

76.1% of the respondents were married and 23.9% did not have spouses, who were either single windowed or divorced.

Table 4.4 Education levels of the respondents

Education	frequency	percentage
None	1	0.8
Primary	78	60
Secondary	42	32.3
Tertiary	9	6.9
Total	**130**	**100**

The respondents are not very learned with only 6.9% having post secondary school education and a majority of the respondents having attained primary education which is 60%. The four key informants three of them were male and one was a female.

4.3 Leadership skills and its influence on effectiveness of farmer groups

The respondents were asked to about funds management by their leaders. Table 4.5 shows their responses.

Table 4.5 Funds management on effectiveness of the farmers group

Funds management	frequency	percentage
Excellent	6	4.6
Very well	19	14.6
Well	46	35.4
Fair	44	33.8
Poor	16	12.3
Total	**130**	**100**

About 35.4% of the respondents said that the funds were well managed and 12.3% of the respondents said the funds were poorly managed. Only 4.6% said the funds were excellently managed.

The respondents were asked on how records are kept and table 4.6 shows their responses below.

Table 4.6 Record keeping on group effectiveness

Record keeping	frequency	percentage
Excellent	14	10.7
Very well	19	14.6
Well	46	35.4
Fair	44	33.8
Poor	15	11.5
Total	**130**	**100**

In table 4.6 10.7% of the respondents said records are excellently kept and 11.5% said records are poorly kept with about 35% and 34% said to be well and fairly kept respectively.

Respondents were asked about decision making in their groups and the answers are shown in table 4.7.

Table 4.7 Member's involvement in decision making

Status of involvement	frequency	percentage
Excellent	30	23.1
Very well	41	31.5
Well	31	23.8
Fair	17	13.1
Poor	11	8.5
Total	**130**	**100**

Table 4.7 shows that about 78% of the group members were well and above involved in decision making with only about 8.5% being poorly involved.

In table 4.8 respondents were asked if they were involved in election and if elections are democratic.

Table 4.8 Group elections on effectiveness of the group

Election status	frequency	percentage
Held	127	97.7
Not held	3	2.3
Very democratic	10	7.7
Democratic	87	66.9
Undemocratic	24	18.5
Highly undemocratic	9	6.9
Total	**130**	**100**

Over 97.7% of the members are involved in the elections as shown in table 4.8 above and about 74% of the elections are democratic. About 2.3% are not involved in the elections.

Table 4.9 Leader's contribution on group profit margins

Leader's contribution	frequency	percentage
Excellent	2	1.5
Very well	16	12.3
Well	42	32.3
Fair	62	47.7
Poor	8	6.1
Total	**130**	**100**

In table 4.9 members were asked how leaders have contributed in improving profit margins of the members and the groups only about 1.5% said excellent and 6.1% said poor. 47.7% of the respondents said the leaders have fairly managed to improve on their income.

Table 4.10 Relationship between Leadership and group effectiveness

		Leadership style	Group effectiveness
Leadership style	Spearman's rank Correlation	1	.695
	Sig. (2-tailed)	.	.540
	N	130	130
Group effectiveness	Spearman's rank Correlation	.695	1
	Sig. (2-tailed)	.540	.
	N	130	130

4.3.1 Relationship between leadership of group and effectiveness

There is a strong correlation between the leadership of the project and group effectiveness as good leadership led to higher profit margins and large sales due to available market information as depicted by a positive 0.695 coefficient.

From the interviews, the key informants' opinion on leadership was that there were problems in the leadership of the groups. These groups were occasioned by wrangles and fighting for leadership positions.

4.4 Physical location on effectiveness of farmer groups

Table 4.11 Location of market on the group

Location	frequency	percentage
Local market	44	33.8
Distance market	4	3.1
Exporters	2	1.5
Middlemen	70	53.8
Others	10	7.7
Total	**130**	**100**

An analysis of the prevailing market condition indicate that more than 50% marketed their produce through middlemen, 33.8% relied on the local market with only about 1.5% exporting their produce.

Table 4.12 Market Road condition

Status of the road	frequency	percentage
Excellent	3	2.3
Very good	13	10
Good	51	39.2
Average	52	40
Bad	11	8.5
Total	**130**	**100**

Table 4.12 was asking about the road condition on where groups are located, more than half of the farmers felt that the roads to the market were in good condition and about 8.5% are bad roads, 40%, 39.2%, and 10% were average, good and very good respectively.

Table 4.13 Effect of distance of the market from group location

Effect of distance	frequency	percentage
Affected	121	93.1
Not affected	9	6.9
Total	**130**	**100**

In table 4.13 respondents were asked about the distance to the market with 93.1% feeling that the distance to the market really affected their marketing of the produce.

Table 4.14 Whether the groups receive market information on their produce

Market information	frequency	percentage
Receives	109	83.8
Does not receive	21	16.2
Total	**130**	**100**

In table 4.14 about 83.8% of the respondents acknowledged receiving market information on their produce

Table 4.15 Main source of marketing information

Medium	frequency	percentage
Radio	26	23.9
Traders	16	14.7
Newspapers	7	6.4
Extension workers	13	11.9
Telephone	5	4.6
Middlemen	32	29.4
Others	10	9.2
Total	**109**	**100**

The main source of information is through radio and middlemen with 23.9% and 29.4% respectively as shown in table 4.15.

Table 4.16 Influence of information on effectiveness of marketing

Status of influence	frequency	percentage
Influences	67	51.5
Influences slightly	31	23.8
Doesn't influence	11	8.5
Not aware	21	16.2
Total	**130**	**100**

In table 4.6 51.5% concur that the information influenced the effectiveness of marketing and 16.2% not aware.

Table 4.17 Relationship between physical location of group and group effectiveness

		Physical location of market	Group effectiveness
Physical location	Spearman's rank Correlation	1	.843
	Sig. (2-tailed)	.	.549
	N	130	130
Group effectiveness	Spearman's Rank correlation	.843	1
	Sig. (2-tailed)	.569	.
	N	130	130

4.4.1 Relationship between physical location of market and group's effectiveness

There is a relatively strong positive correlation between the location of the market and group effectiveness in marketing produce as shown by a positive 0.843 coefficient as the production costs are directly related to profitability and transport costs comprise a major portion of production costs. There is a strong positive correlation between the physical locations of the market for the cereals and how effective the groups were as shown by a strong 0.843 coefficient correlation.

From the interviews, the key informants' opinion on physical location was that due to bad roads and distance most of the farmer groups were disadvantaged in marketing and also the performance of the groups was not that very efficient.

4.5 Group composition on-effectiveness of farmer groups

Table 4.18 Gender of group members

Status	frequency	percentage
Women	59	45.4
Men	71	54.6
Total	**130**	**100**

An analysis on the group composition and traits and their influence on effectiveness as per table 4.18 reveal that the groups were predominantly male with 54.6%.

Table 4.19 Educational level of majority group members

Level	frequency	percentage
None	0	0
Primary	85	65.4
Secondary	43	33.1
Tertiary	2	1.5
Total	**130**	**100**

In table 4.19 shows is the majority of the farmers in the group were of primary level of education who is 65.4%.

Table 4.20 Influence of group members education level on effectiveness of group

View	frequency	percentage
Yes	109	83.8
No	21	16.2
Total	**130**	**100**

In table 4.20 level of education is a fact that the respondents felt really affected the effectiveness of the groups with 83.8%.

Table 4.21 Effect of group size on effectiveness

View	frequency	percentage
Yes	89	68.5
No	41	31.5
Total	**130**	**100**

68.5% of the respondents strongly felt that the size of the group affected effectiveness with 31.5% thought it doesn't.

Table 4.22 Effect of age on group effectiveness

View	frequency	percentage
Yes	57	43.8
No	73	56.2
Total	**130**	**100**

In table 4.21 the respondents were asked if they think age has any influence on group performance. Majority disagreed that the age of members could affect the effectiveness at 56.2% of the total respondents and 43.8% thought it does not.

Table 4.23 Relationship between groups' composition and effectiveness of the groups

		Group composition	Group effectiveness
Group composition	Spearman's rank Correlation	1	.608
	Sig. (2-tailed)	.	.569
	N	130	130
Group effectiveness	Spearman's rank Correlation	.608	1
	Sig. (2-tailed)	.569	.
	N	130	130

4.5.1 Relationship between group composition and effectiveness

There is a relatively strong positive correlation between the group composition and the group effectiveness as depicted by a coefficient of 0.608, which could have been stronger if the members were more educated and informed on market information concerning the product and the groups' objectives in general.

From the interviews, the key informants' opinion on group composition was that due to the fact that most of the farmers were not educated efficiency and effectiveness of the groups is compromised.

4.6 Group assets its influence on effectiveness of farmer groups

Table 4.24 Saving revenues in groups

View	frequency	percentage
Yes	114	87.7
No	16	12.3
Total	**130**	**100**

An analysis on the group assets indicate that most groups save their revenues as confirmed by 87.7% of the members

Table 4.25 Effect of income on effectiveness

Affect	frequency	percentage
Yes	123	94.6
No	7	5.4
Total	**130**	**100**

94.6% of the total respondents who also feel that income greatly influence effectiveness in the groups and only 5.4% feel that otherwise.

Table 4.26 Land ownership by members on the group

Size of land	frequency	percentage
Less than 1 acre	49	37.7
1-3 acres	67	51.5
3- 5 acres	10	7.7
Over 5 acres	4	3.1
Total	**130**	**100**

About 51.5% of the farmers own between 1 and 3 acres of land with 37.7% owning less than 1 acre of land

Table 4.27 Land lease on effectiveness of the group

Size of land	frequency	percentage
Less than 1 acre	35	26.9
1-3 acres	73	56.2
3- 5 acres	19	14.6
Over 5 acres	3	2.3
Total	**130**	**100**

The study further reveals that a majority of the farmers 87% lease up to a maximum of three acres of land for production with only 2.3% leasing over 5 acres.

Table 4.28 Farming land size on effectiveness of the group

View	frequency	percentage
Influences highly	57	43.8
Influences moderately	47	36.2
Influences slightly	20	15.4
Doesn't influence	6	4.6
Total	**130**	**100**

43.8% of the farmers are of the view that the size of land put to use has great effect on the effectiveness of the group marketing and only 4.6 % who felt that it doesn't influence.

Table 4.29 Relationship between group assets and group effectiveness

		Group assets	Group effectiveness
Group assets	Spearman's rank Correlation	1	.7843
	Sig. (2-tailed)	.	.549
	N	130	130
Group effectiveness	Spearman's Rank correlation	.7843	1
	Sig. (2-tailed)	.569	.
	N	130	130

4.6.1 Relationship between group assets and effectiveness

There is a relatively strong positive correlation between the size and quantity of the assets owned by the group and group effectiveness as shown by a positive 0.784 coefficient as the ownership of assets by the group members improved their ability to market more effectively their produce and acquire favourable prices, this also help them manage their affairs better.

From the interviews, the key informants' opinion on group assets was that farmer groups with good assets perform so well in a sense that they can easily take their produce to the market or even wait for good prices. The production is poor with the farmers who have little resources and their groups do not function efficiently.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the summary of the findings, conclusions and recommendations of the study on factors influencing the effectiveness of farmer groups in the cereals market in Imenti North District. The discussions and conclusion are also presented based on the four research questions of the study under these four variables; leadership, physical location, group composition and group assets. Recommendations and areas for further research are also suggested.

5.2 Summary of the findings

After the data collection, analysis and interpretation, the research came up with the following findings on variables under investigations. Based on the response rate of 95.6% the study assumed to have captured reasonable amount of data for positive conclusion of the findings.

Out of 130 respondents who were questioned 60% males and 40% females with the majority being of age bracket between 30-30 years at 33.07% of the respondents and very few who were below 20years which was 4.61%. 35.38% of the respondents said that their funds were well protected with 12.3% saying the funds are poorly protected. Almost all the farmer groups hold the elections which are 97.8%.

Most of the groups market their produce to middlemen unlike very few who sell to the exporters who are about 1.5%. It was found that the state of the roads is average with 36.2% of the respondents and only very few 2.37% which are excellent. It was found that 83.8% receive market information and out of these 51.53% influences the effectiveness of the groups in marketing. It was found that 54.62% were men and 45.38 were women in the groups that were sampled. The majority in the groups had primary education that is 65.38% and also 83.84 think that it affect the group performance. The age bracket of the majority of the members lies between 30-39 years which is 71.53% and it was found that 56.15% think that age doesn't matter on group effectiveness. 87.7% of the groups do savings and 94.6% said that these savings affects the group effectiveness. About 47.7% think that leaders have fairly to improve

on their income in cereals and 38.61% were of the opinion that the government should intervene to protect the sector. Traders in their opinion said that the groups are slightly effective in terms of marketing their cereals, the opinion shared by ministry of agriculture officials.

5.3 Discussions

About 81% of the group leaders do not manage the funds very well in which it was found that 35.4% managed, 33.8% were fairly managed and 12.3% were poorly managed. According to Norbu (2008) lack of good practices and ethics of managing group enterprises by the group leaders, often carrying out their functions with little or no respect for accountability and transparency principles, misuse of authority and group finances by the leaders inducing mistrust were alleged to be some of the main reasons for ineffectiveness/failure of some groups in Bhutan.

An analysis of the prevailing market condition indicate that more than 50% marketed their produce through middlemen, slightly more than 30% relied on the local market with only about 1.5% exporting their produce this might be contributed by about 48% of the respondents who said their roads to the market are not good. The study found that about 93% felt that the distance to the market affected their marketing prowess. As noted by Kruger *et al.* (2002) most cities and regional markets cannot be reached by a good road throughout the year which bids up the cost of transport to these areas creating an additional market barrier the producers in the area need to face if they wish to sell their products to the national market.

The study found that among those who were sampled 24.6% received market information from middlemen with more than 51% concurring that the information influenced the effectiveness of marketing. According to Maltsoglou and Tanyeri-Abur (2005) market factors include information that ensures improved market access, number of market channels a farmer sells to for different crops, distance to the market. These are likely to have a multi directional effect on participation in markets and the value of sales from the market. Knowledge of the market price alleviates uncertainties associated with market price.

The study found that about 93% of farmer groups were affected by the distance with about 7% not affected and as noted by Makhura et al. (2001) distance to the market is hypothesized to have a negative impact on participation in the market and value of sales from the market because further distances discourage participation in the market. While Nkonya et al. (2004) found a positive association between income and distance from an all weather road in Uganda.

About 68% felt the size of the group influence it effectiveness this is also supported by Gotschi (2006) that group size can also affect cohesion, group that is too large may find that members cannot get the recognition they are looking for. Olson's (1971) argument in favour of small groups is actually a corollary of the effect of inequality. Namely small groups are more likely to be successful because the distribution of benefits is more likely to be unequal. Size, however, can also have direct effects. On the one hand, the institutional features that make collective action successful, such as monitoring, are more easily implemented in small groups. On the other hand, there might be economies of scale in large groups.

About 87.7% of the groups do savings and as noted by Abaru et al (2006) promotion of a savings culture have been identified as one of the factors that strengthen FOs. Savings provide a source of affordable credit where commercial lenders are not keen to lend money for agriculture despite its being the mainstay of the East African economies. Even in the few instances when agricultural enterprises qualify for loans, interest rates are too high for small-scale farmers.

About 51% of the farmers own between 1 and 3 acres of land with 37% owning less than 1 acre of land. The study further reveals that a majority of the farmers 87% lease up to a maximum of three acres of land for production. About 44% of the farmers are of the view that the size of land put to use has great effect on the effectiveness of the group marketing. As noted by Masakure and Henson (2005) farm size is expected to have a positive impact on production, and thereby directly influencing market participation and the value of sales from the market. The influence on the amount of land cultivated is expected to be enterprise specific. Evidence from various studies have found that farm size positively motivated participation in and the value of sales from the market, for high value produce, contract farming.

About 94.6% of the group felt that income greatly influence the group effectiveness. According to Thompson (1994) mobilizing of material resources (savings, credit) to help produce more, assisting newly formed groups to access productive resources, Securing sustainability in natural resource use, providing social infrastructure (roads...) for communities at the village level, improving access to information for rural population, improving flow information between them and NGOs and Government, cementing social relationships, providing a framework for joining effort and action, helping people to organize their own knowledge in ways that it can be beneficial to them and useful for research, advocating for community rights, and mediating access to resources for disadvantaged and excluded groups of people.

5.4 Conclusions

Leaders must learn the principles of group organizing and group management skills in order to help the group members, especially the poor or weaker sections, to organize themselves for development. Understanding the structures, by-laws, rules, and roles will help leaders to plan, implement, and monitor their programmes and to perform this new role effectively. In the case of group composition leaders and group members can play a positive role in developing a common or shared vision for sustainable development, learn each other's strength and weakness and how to work together, use the strengths to develop one another, help those with weaknesses to overcome them.

Collective action is the key to improve the market access and experience of poor farmers especially where the physical location is not conducive and distances are long to the market. Smallholders, acting as individuals, can neither produce the quantities necessary to enter the larger, more-reliable markets, nor access current information about, or transportation to those markets. Farmers themselves must form and participate in strong, local marketing associations in order to receive a fairer value for their produce. Reducing the control held by opportunistic middlemen requires that farmers develop greater market intelligence and address farming as a business. Farmer groups should enhance savings and have an asset base so that farmers can easily access inputs, form enterprises, process and market their products more effectively to generate higher incomes. By organizing, farmers can access information needed to produce, add value, market their commodities and develop effective linkages with input agencies such as financial service providers, as well as output markets. Farmer groups need to ensure that some funding comes from member contributions and income generating activities, as these stimulate commitment and guarantee financial independence and autonomy.

5.5 Recommendations

i. Further research can be carried out to ascertain the validity of results and at a given level of confidence.

ii. This research should be extended with a wider scope covering more farmer groups. A larger sample size to determine if the problem is affecting the whole country.

iii. It should be acted upon the recommendations as realized and policy makers should come with the solutions upon the recommendations

5.6 Suggestion for further studies

This research has shed some light on areas of further research. A study can be done on the effect of marketing information on farmer groups. An evaluation on the influence of groups on food security can be carried out. Finally the same study can be carried out on the influence of groups on good crop production using a bigger sample.

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APPENDICES

Appendix I: Letter of introduction

Oswald Miriti
Po Box 68
Chogoria
Date_____

To whom it may concern,
Imenti North District.

Re: Permission to carry out research

I am Oswald Miriti a student at the University of Nairobi, Department of Extra Mural studies undertaking a master's course in project planning and management. I am carrying a research project in the area of farmer groups in relation to cereal market in the partial fulfillment of this degree. I would want to use your district as part of my study in regard to the effectiveness of the groups in cereal marketing. This will entail administering questionnaire to the group members' and interview to cereal traders, millers and ministry of agriculture officers in the district. The information shall be treated with confidentiality and will only be used for the purpose of this study.

Thanks in advance.

Yours Faithfully,

Oswald Miriti.

Appendix II: Questionnaire for the farmers

This questionnaire will assist to find out factors influencing the effectiveness of farmer groups in the cereals market in Imenti north district. Your sincere responses will be essential to the survey and your identity will not be disclosed.

PART A: BACKGROUND INFORMATION (Tick the necessary)

1. Name of the farmer group_____
2. Gender of the respondent [ ] Male [ ] Female
3. What is your age bracket?

[ ] Under 20 years [ ] 20-29 years [ ] 30-39 years [ ] 40-49 years [ ] Over 50 years

4. What is your marital status?

[ ] Married [ ] Single [ ] Windowed [ ] Divorced/Separated

5. What is your highest educational level?

[ ] None [ ] Primary [ ] Secondary education [ ] Tertiary

PART B: LEADERSHIP

6. How do the leaders manage the group's funds so that they are protected for effectiveness of the group?

   [ ] excellent [ ] very well [ ] well [ ] fair [ ] poor

7. How are the records kept for the purpose of accountability?

   [ ] excellent [ ] very well [ ] well [ ] fair [ ] poor

8. How are the members involved in decision making in the group for group effectiveness?

   [ ] excellent [ ] very well [ ] well [ ] fair [ ] poor

9. Does your group hold elections? [ ] Yes [ ] No
10. How democratic are your elections?

    [ ] Very democratic

    [ ] Democratic

    [ ] Undemocratic

    [ ] Highly undemocratic

PART C: PHYSICAL LOCATION

11. Where do you market your produce?

[ ] Local market [ ] Distance market [ ] Exporters [ ] middle men [ ] others

12. How is the status of the roads to where you market your produce?

[ ] excellent [ ] very good [ ] good [ ] average [ ] bad

13. Does the distance from your group location to the market affect your marketing of your produce?

[ ] Yes [ ] No

14. Do you receive market information in your group?

[ ] Yes [ ] No

If yes answer question (15), if you do not go to (16)

15. Which of the sources do you mostly receive information?

[ ] Radio [ ] Traders [ ] Newspapers [ ] Extension workers [ ] Telephone

[ ] middle men [ ] Others (specify)_____

16. Does the market information influence effectiveness of your group in marketing?

[ ] Influence

[ ] Slightly influence

[ ] Doesn't influence

[ ] Not aware

PART D: GROUP COMPOSITION

17. Who are the majority members in your group?

[ ] Women [ ] Men

18. What is the educational level of the majority of your group members?

[ ] None [ ] Primary [ ] Secondary education [ ] Tertiary

19. Do you think the educational level of your group members have any influence on your group effectiveness?

[ ] Yes [ ] No

20. Does the size of your group membership matter on its efficiency?

[ ] Yes [ ] No

21. Do you think the age bracket of the majority of your group membership have any influence on your group effectiveness?

[ ] Yes [ ] No

PART E: GROUP ASSETS

22. Does your group do savings? [ ] Yes [ ] No

23. Do you think the income in your group influences its effectiveness?

[ ] Yes [ ] No

24. What approximate land size does majority of your group member's farm?

[ ] Less than 1 acre [ ] 1-3 acres [ ] 3-5 acres [ ] over 5acres

25. How much land does majority of your group members approximately rent for farming?

[ ] Less than 1 acre [ ] 1-3 acres [ ] 3-5 acres [ ] over 5acres

26. To what extent do you think land size on which majority of your members' farm on influences effectiveness of your group?

[ ] Highly influences

[ ] Moderately influences

[ ] Slightly influence

[ ] Doesn't influence

PART F: GENERAL QUESTION

27. To what extent do you think your leaders have effectively helped your group to increase on the profit margin and income in your cereals?

[ ] Excellent [ ] Very well [ ] Well [ ] Fair [ ] Poor

Appendix III: Interview schedule for the traders, millers and ministry of agriculture officials

This interview will assist to find out factors influencing the effectiveness of farmer groups in the cereals market in Imenti north district. Your sincere responses will be essential to the survey and your identity will not be disclosed.

1. Gender _____
2. How do you rate the leadership of farmer groups on effectiveness in terms of marketing their produce?

   _____

   _____

3. In your own opinion do you think physical location affect farmer groups in terms of marketing your region?

   _____

   _____

4. To what extent do you think group composition influence the effectiveness of the farmer groups?

   _____

   _____

5. To what extent do you think group assets influence the effectiveness of the farmer groups?

   _____

   _____

6. Could you list measures that you think can address the effectiveness of farmer groups in the cereal market in the District?

   _____

   _____

   _____

   _____