

# **INFLUENCE OF COLLECTIVE ACTION ON MARKET ACCESS AMONG SMALLHOLDER BANANA FARMERS IN IMENTI SOUTH DISTRICT, KENYA**

**Mukindia Benson Mutai**

Master of Arts in Project Planning and Management, University of Nairobi, Kenya

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## **ABSTRACT**

Collective action has re-emerged recently to organize smallholder farmers in developing countries in the wake of agricultural market liberalization. Collective action that promotes the empowerment of farmer groups will allow them to overcome specific barriers to becoming part of market economy. Smallholder farmers should therefore exploit the wave of support for cooperatives and organized farmer groups to improve their access to the input and product markets. There is need for the relevant investment in capacity building of farmer groups to deliver relevant services which allows smallholder farmers participate actively across the entire value chains through collective action approach that operate at the grass root level. If farmers market their produce collectively, they can attain economies of scale and bargaining power to negotiate for better market arrangements and prices. The primary inquiry of this study was to identify and understand the underlying factors that enable smallholder farmer groups to access the market for their

bananas. The study was conducted with 10 farmer groups. Individual data were collected on approximately 80 farmer group members. The analysis considered how group composition, group characteristics, group assets and group governance characteristics, affect a farmer group's ability to access its market for their crop. Findings suggest that more mature groups with strong internal institutions, functioning group activities, and a good asset base of natural capital are more likely to better access their market situation. Gender composition of groups also factors in better group market access. It acts as an enabling factor for male dominated and gender-balanced groups and acts as a disabling factor for female-only groups. Cognitive social capital in the form of group trust and homogeneity of identities (i.e., ethnicity, age, education, religion) are significant factors in a group's ability to improve its market access situation.

**Key Words:** *Collective action, market access, market liberalization, governance characteristics*

## **INTRODUCTION**

The importance of smallholder agriculture has been greatly recognized in the recent years. This growing recognition has led to two major crosscurrents of theory and practice aimed at boosting Africa's faltering agricultural economies. First, agricultural development will not occur without engaging smallholder farmers who account for the overwhelming majority of actors in this sector (Resnick, 2004). The second current is that the major obstacle facing smallholder-led agricultural growth is lack of market access, which proponents contend, will lead to increased incomes and food security, more rural employment, and sustained agricultural growth (Dorward et al., 2003). 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 performance (Kariuki and Place, 2005).

Smallholder farming is a crucial economical activity in developing countries. It is recognized that strengthening small holder farmers' activity is a key driver to reduce poverty, ensure food security and enhance economic development (Ouma, 2010). With that said, smallholder farmers are still too vulnerable to shocks which include price and weather fluctuations; the risk of entering new markets for many is an overwhelming challenge. Smallholder organization in farmer groups is seen as a possible institutional solution to overcome high transaction costs and other market failures in developing countries (Markelova et al., 2009). In addition, farmer organizations can provide important platforms for capacity building, information exchange, and innovation in rural settings (Bingen et al., 2003). Recently, the promotion of farmer collective action has gained high popularity in the context of the agri-food system transformation, as a response to stringent quality and food safety standards and new procurement systems (Narroed et al., 2009). For example, group contract arrangements can improve smallholder market power and ensure a more equitable distribution of benefits (Key and Runsten 1999). Moreover, peer pressure through farmer groups may reduce the likelihood of opportunistic behavior in contracting, such as side-selling (Fafchamps, 2004). However, farmer groups are not always successful, and there is a need to better understand under what conditions collective action is useful and viable (Markelova et al., 2009).

The banana sector in Kenya provides an interesting example to analyze the influence of collective action for market access among smallholder banana farmers. Bananas provide an important source of food and income for millions of smallholders in East Africa and other developing Countries (Arias et al., 2003). However, over the past decades, there has been a decrease in banana yields of African farmers, which is largely due to pests and diseases that threatens household food security. At the same time, due to urbanization processes, demand for high-quality bananas is growing. Hence, many smallholder producers have become more reliant on the cash income generated from banana sales, especially in areas that were negatively affected by declining incomes from traditional cash crops such as coffee (Wambugu and Kiome, 2001). This trend of declining yields has been reversed more recently in Kenya, especially in regions where development initiatives were implemented to distribute improved banana planting material and support good agronomic practices as well as improved access to profitable markets. The National Banana Association is an example of farmer led initiative that promotes the interests of small and large scale banana growing farmers, processors and marketers. The goal is to advance the Kenya banana industry by innovation and advocacy through uniting banana growers, processors and marketers in order to create beneficial policies, effective relationships within the industry, profitable opportunities through research and technology and contribute positively to national development.

The primary aim of this study was to identify and understand the underlying collective action factors that enable smallholder producer groups to access market for their produce. Specifically, researcher aimed to examine the extent to which group composition, group

characteristics, group governance and farmer group assets facilitate collective action initiatives to improve group market access in Imenti South District among smallholder banana farmers. Improving market access in this context will include components such as: the type of the market (Rural, Urban, and Regional), market infrastructure (e.g., roads, post harvest facilities, market centers'), strengthening farmer groups and creating market linkages.

## **STATEMENT OF THE PROBLEM AND CONCEPTUALIZATION**

Collective action has become an important strategy for smallholders in developing Countries to remain competitive in rapidly changing markets. The weak performance of the agricultural markets in Kenya has been portrayed in various studies as a major impediment to growth in the agricultural sector and overall economy. With an efficient market access system, the surplus resulting from increased production benefits neither the farmers nor the Country. This is particularly important as the Country is following the policy of agriculture led-industrialization and economic development where agricultural sector is expected to produce surplus that can move to other sectors of the economy. The agricultural markets in Kenya are highly influenced by production system itself. Most of production is undertaken by small holder farmers scattered all over the Country, engaged in different agricultural enterprises without specialization, and with limited marketable surplus. Therefore, the scattered produce in small quantity needs to be collected and assembled, graded, and transported from one market level to another (Chitemi, 2009). Thus, the market access system is characterized with a long chain with many intermediaries. An intervention is required to shorten the marketing channel in order to reduce the marketing costs incurred at each level of marketing channel so that the benefits will go to the farmers.

Although collective action is considered as an appropriate tool of rural development it is facing critical problems, which hinder them from their positive role. Some of these constrains are: low institutional capacity, inadequate qualified personnel, low entrepreneurship skills, lack of financial resources, lack of market information, poor members participation, patronizing the business activity of the groups, control and support (Bingen, 2003). Moreover, the prices of agricultural inputs are increasing from year to year and farmers are complaining. Studies carried out on collective action shows that these multifaceted problems make it very difficult over all activities of groups in general and the agricultural markets access in particular (Barham, 2009). According to Markelova et al. (2009) the aforementioned problems place the farmers as usually price takers due to the fact that they have poor market access skills and limited bargaining power.

There have been attempts made by the Government to improve the marketing skills and bargaining power of farmers through the establishment of farmer groups and promoting other group action approaches. This study therefore makes an attempt to bring forth the role of farmer groups in market access in Imenti South District, Meru County.

## **RESEARCH OBJECTIVES**

1. To assess the extent to which farmer group composition attributes influences access to banana market.
2. To assess how farmer group assets influences access to banana market
3. To assess how farmer group governance attributes influences access to banana market.
4. To establish the extent to which farmer group characteristics influences access to banana market.

## **MATERIALS AND METHODS**

This study used correlation research design to gather systematically, factual information necessary for decision making on the influence of collective action on the market access among smallholder banana farmers in Imenti South District, Kenya. The design was an efficient method of collecting descriptive data on practices, conditions or needs. This design is effective in a mixed method used for data collection that provided both qualitative and quantitative data for analysis. This research design provided an analytical frame work to study a planned change through collective action approach. The design is adopted on the premise that findings would prove useful to other study stakeholders, particularly for the ministry of agriculture and organized farmer groups in the district. Whereas the target population was all the smallholder banana farmers in the district, this study focused on the accessible population constituting of farmers already identified and registered as formal groups by the Ministry of Agriculture at the Imenti South District level.

The target population was therefore 3200 registered farmers in 40 farmer groups. Out of 6 administrative locations in Imenti South, 3 locations were sampled using simple random sampling method for this study. Purposive sampling was used to select the two key informants from the District Agricultural Office. Proportional random sampling of farmers was used to obtain the 10 farmer groups and the sample size per group. The sample for this study is comprised of 10 farmer groups with a mean group size of 79 group members. This was achieved by use of Krecjie and Morgan (1970) formula for determining sample size. A mixed-methods approach (Marsland, 2000) was utilized for this study employing the following qualitative and quantitative data collection methods: Documentary analysis, Key informant interviews and Self-administered questionnaires. To enhance the validity and reliability of the instruments, a pilot study was carried out by administering the questionnaires to the farmers in one group to assess the ability of the respondents to interpret and answer the questions asked correctly. Quantitative data analysis was done by utilizing the Statistical Package for the Social Sciences software. Descriptive statistics (i.e., cross tabulations) and qualitative data analysis techniques (i.e., categorization, classification) to explore the relationship between the independent variables and market access was employed.

## **RESEARCH RESULTS**

Farmers at 42% of the members in the groups confessed some improvements in collective action, while 21% did not note any improvement in group action and 35% of the groups noted large improvements in collective action. Most of the customers in the farmers groups are traders at 49% while brokers represent 41% and small proportion of consumers at 9%.

### **Group composition**

A majority at 69% of the males in the groups interviewed would call a broker if their desired price is not offered; this compares to an almost similar percentage of women i.e. 72% who would do the same. A further 27% and 18% of male and female respondents would accept the offer given, however a small percentage of both male and female would leave the offer and sell their bananas at a later date. It's evident that both gender are driven to sell their bananas by a similar factor, thus we cannot claim that any gender in the group would influence the banana market, as they are both willing to sell banana irrespective of demand supply forces of the market. This claim can further be supported by the fact that the ratio of male to female in the sample is not much different. It has been argued from the literature review that female-only and female-dominating groups will be at a market access disadvantage compared with their male counterparts. There is no sufficient evidence to support this hypothesis, but only so far as it applies to groups attempting to improve their market access situation by seeking out new market opportunities. Due to culturally ascribed gender roles, women assume a greater share of the responsibility over their households' production and reproduction activities. Given these responsibilities, many women simply do not have time to spend searching out new market opportunities. This is compounded by the fact that women do not have the same socio-political networks that men have, all of which makes it more difficult for them to access new resources and services that could lead to new market opportunities.

Majority of the respondents at 75% who have primary education are likely to sell their bananas in the farm; a further 5% of the same categories are likely to sell their bananas at the regional level. A lesser 71% of the respondents who are educated up to secondary level would sell their bananas at the rural i.e. from their farms. Moreover, the one person representing 100 percent of the respondents with a university degree would sell their products at the international market. Of those farmers in the groups interviewed with secondary education none would sell their products at the regional level showing lack of technical knowhow on how to push their bananas to this level, further only 5% of the farmers in the groups are likely to sell their bananas in the regional level. We note a decrease in the number of farmers who are willing to sell their bananas in their farms as the education level increases. Thus we can say the level of education affects the type of market farmers in the groups under study choose to sell their bananas. However a further test need be done to ascertain if this is significant at a given level of confidence.

Majority of the farmers in the groups sell theirs bananas as individuals, this represents 79% and 77% of male and females respectively. Only 20% and 22% of male and female respectively would sell their bananas as a group, thus the fact on gender in a group may not

necessarily influence access to banana market. Thus in conclusion we reject and conclude that there is no relationship between group compositions i.e. gender attributes and banana market access i.e. selling bananas as individual or group.

Majority of the males sell their bananas to brokers at 48% compared to 41% who sell their bananas to traders, this can be attributed to the fact that men may not have all the time bargaining with brokers as well as the patience required to complete the transaction. However, more women are willing to sell to brokers at 54% compared to 36% who would be willing to sell their banana to traders. We can claim that women have these characters.

The highest fraction of bananas taken to the market are through human labour at 71 percent as opposed to 21% of the ones taken to the market via use of any other means of transport i.e. motorcycles, bicycles, vehicles etc. So we say that the fact that one is a male or female does not affect how the market is accessed.

### **Group assets**

Asset endowments are defined here as the pool of resources or assets available to an actor (Di Gregorio et al. 2004) and include physical, natural, financial, social, political, and human capital, as well as property rights vis-à-vis these assets. About 70% of the farmers with less than one acre would sell their bananas at the farm gate level while a further 75% with; between 1-2 acres, 18% with 3-4 acres and 100% with over 5 acres would sell their bananas at the same level. Further fewer farmers are willing to sell their bananas at the regional level irrespective of the acreage.

Majority of the respondents would prefer to sell their bananas through a broker if the price is not favorable, or call another broker rather than accept the offer or wait for another day. This can be attributed to the perishable nature of bananas that may not wait for another day. A majority 77% of the farmers with no access to reliable water in their farms would choose to sell their bananas at the farm gate level as opposed to 65% of the farmers with reliable water supply.

Furthermore farmers with reliable water would prefer to sell their bananas at the urban markets compared to a 17% of those who don't have access to reliable water supply. This can be associated with the quality and quantities of banana produced in the presence of water. Thus we conclude that farmer group asset in this case water may influence the access to banana market.

Majority of the farmers who have no access to reliable water are 77% and would be willing to call a broker or seek another broker in case the prices offered are not favorable while 68% of those with water supply would do the same. A minority 20% with no water supply would accept the offer compared to 23% of those with water supply who would accept the offer, this is due to the fact that those farmers with water stand to lose more if they don't accept the offer as opposed to those without water supply, again we conclude that farmer group asset in this case water may influence the access to banana market.

These findings were given added weight when considering how these assets, along with group wealth and other agro-ecological factors, provide groups with an array of marketing strategy alternatives to exploit existing and emerging market opportunities at both farm gate and regional markets.

### **Group governance**

Group governance is concerned with creating the conditions for ordered collective action. Exercising power and decision making for a group of people is called governance (Chitemi, 2009). Small farmer groups may suffer from illiteracy, poor leadership, poor managerial skills, weak financial base and poor access to resources and services. A majority 52% did not have trust in governance structure of the groups. Further 38 percent did not have any opinion regarding group governance while only 16% agreed that their groups were governed well. However, 45% of the farmers in the group's samples were satisfied and a further 43% of the farmers were very satisfied with the principles of group governance. Almost all the respondents were satisfied with the type of leadership they had in the group. This represented 94% of the sample taken.

About 46% of the respondents who are very satisfied with the principles of good governance in their groups claim a large improvement in collective bargaining of the group, interestingly among the 66% of those dissatisfied with governance in their groups have noticed some improvements in collective bargaining of the group. This we see that collective bargaining influences banana market access in a positive manner.

In general 93% of those farmers in the groups who have a good relationship with their leaders attribute this to good governance hence the strength with which members of the group value the virtue of good governance in the group. There are 78% of the farmers in the groups who are dissatisfied with the governance of the group and would sell their bananas at the rural level for fear of price manipulation. A higher 8% would be willing to sell their products at the regional level due to trust they have in management of the groups hence a claim can be sustained that proper good governance may influence access to banana market.

### **Group characteristics**

Based on members' socio-economic characteristics, they may recognize strong benefits in such collective projects as joint investment, maintaining local infrastructure, rule-setting for natural resource use, or representing the group to outsiders. Small group size, shared norms, previous successes in collective action (social capital), effective leadership, and interdependence among group members are factors that can encourage and support effective collective action (Agrawal, 2001). Majority of the respondents, 92%, in the groups aged between 5-10 years would sell their bananas at the rural level compared to 60% and 71% who would sell their bananas at the rural level aged between less than 5 and more than 10 years respectively. About 8% of the farmers would be willing to sell their bananas at the regional level compared to a lesser 7% in the group aged between 5-10 years respectively. This can be attributed to the fact that new groups have young members who are willing to take more risk



as opposed to older groups. Even after accounting for all the other variables, a far greater number of the groups in existence for a longer period were able to implement collective action initiatives to improve their market access situation. Whereas mature groups had a set of formalized or informal set of institutions to guide group behavior and action, the same cannot be said for the newly formed groups. Many of the newly formed groups did not improve their market access situation significantly. One explanation is that few of these groups had yet to form internal institutions that could be utilized to mobilize group resources and to put them toward collective action initiatives.

At 36% of the respondents who use some means of transport to access market for their bananas are aged less than 5 year while a small percentage i.e. 22% of those respondents in an older group can access such means of transport. Moreover, 77% of these older groups accesses the market via human labour as compared to 64% of the younger group aged less than 5 years who accesses the market via human labour. This can be associated to the fact that younger generation can access means of transport with ease as opposed to the older generation who would prefer human labour. We thus say that farmer group characteristic in this case; age of the group may influence the access to banana market.

A 36% of the respondents in the groups having less than 5 years are more likely to accept the offer as opposed to the older groups who would prefer to call a broker or enquire another one. This can be attributed to the fact that the younger groups as seen above uses some means of transport to the market and by the time they get their bananas to the market they have already incurred a cost which they are not willing to forego hence a desire to accept the offer. This can also be seen by 80% of the older generation don't mind this and would prefer to call a broker .thus again the group characteristic influences access to banana market.

Majority of the groups had more than 50 members in the group at 34% of the sample size. While 63% of the respondents had more than 30 members in a group. It is further noted that 47% of the groups existed for more than 10 years and 34% of the groups existed for less than 5years. Most of the groups were formed at the ward level at 69% compared to those formed at village level at 31%. Majority of the members at 63% were aged between 40 and 50 years. While only 2% were aged below 25 years. Group size did not have any effect on group market access situation, and thus, there is no evidence in this study to support the hypothesis that smaller farmer groups will be better positioned to improve their market access situation over larger groups. In regard to the last two hypotheses, it is clear from the bivariate analysis that all two variables (i.e., maturity and age of group) are positively associated with the groups' ability to improve their market access situation. The association was particularly strong for the maturity variable. More mature groups access the banana market by use of human labour as opposed to younger groups that utilize some means of transport to access the market for their bananas.

## **CONCLUSIONS**

The findings of the study indicate that in group composition attributes gender and age of members had no relationship with farmers' ability to access the banana market in Imenti South District. Only in the education level of group members was found to be significant in accessing the banana market. In this, the study findings concur with Lambert (2006) who established that higher education levels have been found to be associated with higher uses of management intensive collective practices and environmental behavior by farmers.

In the group characteristics, older groups were found to access the banana market by use of human labour and less mature groups were more likely to use other means of transport to access the market. The size of the group was found to be insignificant in accessing the banana market. This study disapproves Olson (1965) who argues that smaller groups are more successful in collective action than larger groups as the distribution of benefits is more likely to be inadequate in larger groups.

When considering the group assets both land ownership and banana acreage were found to be significant in determining the kind of market the farmers are engaged in and majority of farmers would prefer to sell their bananas to the brokers in the price offered is not reliable. However, farmers with reliable water supply were found to influence the access to banana market due to higher quality and quantity of bananas produced. This finding is supported by Agarwal (1997) who found out that participation in a group activity is greatest among those who possess a minimum level of assets or skills set such as reliable water that is useful to a project.

In group governance trust among members and good leadership was found to be significant in pursuit of markets by banana farmers. This is supported by findings by Markelova (2009) who found out that group rules are crafted by members themselves and adopted and there is a higher likelihood of being understood and followed, which contribute to the effectiveness and sustainability of collective efforts. The main challenge of collective action is about how to engage poor smallholder farmers in market-oriented interventions that can reduce the level of risk and uncertainty that will inevitably occur in situations where farmers become more dependent on the vagaries of the market. In conclusion therefore, we see that collective action among farmers gives them more benefits in terms of profit maximization than when they act individually.

## **RECOMMENDATIONS**

There is need to provide the necessary information to the farmers about collective action in farming. The Ministry of Agriculture, through extension officers should conduct seminars and workshops to enhance farmers' understanding of collective action in all areas of agricultural farming and marketing to exploit the benefits of group activities. The government, through the various funding agencies and institutions should make credit facilities and grants available to farmers in order for them to adopt group activities.

An attempt to create a culture of entrepreneurship through collective action by farmer groups will prove effective if groups are endowed with appropriate set of group attributes and assets. The findings of this study support this argument given the fact that even the “average” and the “rich” smallholder banana farmers may not have the requisite assets and capacity to effect positive changes in their market access situations.

Another challenge that may form the basis of future study is to get a model that combines and optimizes all the independent variables in a group for maximum benefits. In conclusion there is need for further studies that focus on why there is low farmer participation in collective action despite numerous gains accrued thereof. Further research is also recommended on the extent to which local institutions whether at household level or community perpetuate gender discriminatory practices that constrain women’s ability to per sue collective action initiatives. We also recommend further studies to be conducted to determine if the factors identified as influencing access to banana market would still be significant at a given level of significant.

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