

Full Length Research Paper

Antecedents and effects of group sales on supply chain performance: The case of kola production and marketing in Cameroon

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Accepted 8 November, 2011

Kola plays an important role in the livelihoods of people in the North West region of Cameroon. However, the potential benefits of the product have not been fully exploited due to many problems including ineffective marketing techniques. In an attempt to address this problem, some organisations like the World Agroforestry Centre (ICRAF) have facilitated the producers of kola to embark on group sales as a means to improve their marketing performance. During the first 5 years of implementation of this programme, there was no clear picture about the impact of the marketing intervention programme on the marketing performance of the farmers. This paper discusses the main antecedents and producers' perception of the effects of the group sales on the supply chain performance of kola producers in Cameroon. Using open ended interviews with 50 farmers, the paper reveals that group sales has the potential to improve kola supply chain performance through increase in prices, quantity harvested and sold, and increase in number of producers involved in the group.

Key words: Group sales, collective action, kola, Cameroon.

INTRODUCTION

Kola (*Cola* spp.) is an important crop for the people of north western highlands of Cameroon. The crop is used for a number of purposes including food, medicine, art work and sold to generate income. Given the importance of Kola, there is a pressing need to improve its management base so as to increase productivity and enhance the benefits in a more sustainable manner. Market access proponents argue that for small holders to thrive in a global economy there is the need to shift the focus from production based programmes to marketing based interventions (Barham and Chitemi, 2009). In tune with this perception, many programmes have facilitated the establishment of new and strengthening of existing farming groups as a means to enhance farmers' market access through group marketing in many parts of

Cameroon (Facheux et al., 2006).

In recognition of the important role and the benefits that group action can play in rural livelihoods, many organisations like the World Agroforestry Centre (ICRAF) have embarked on group action as a means to improve farmers' marketing performance in many parts of Cameroon for selected products including Kola. However, after five years of intense efforts to promote group marketing in this part of Cameroon, there is no clear picture about how this intervention has influenced the performance of the supply chain and the wellbeing of the producers. Furthermore, there is little understanding of the main factors which influence producers' participation in and better organisation of group activities such as the group sales.

In view of this, this article assesses the main determinant factors and impact of group sales on supply chain performance of kola in Cameroon. The paper bases its analysis on the collective action theory (CAT) framework by Barham and Chitemi (2009) and assesses

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performance indicators based on farmers' perception. The article recommends strategies for future implementation of collective action activities by managers of Governmental and Non Governmental Organisations working to improve farmers' livelihoods.

LITERATURE REVIEW

Introducing the case study: MIFACIG

This article examines the perceived impact of group sales on the marketing performance of Kola using the case of Twantoh Mixed Farming Common Initiative Group (MIFACIG) in the North West region of Cameroon. MIFACIG is a farmer group created in 1993 with the objective of alleviating poverty through sustainable agriculture, job creation and capacity building. The groups' headquarters is in Belo and its activities are spread out in all 4 sub-divisions of Boyo division in the North West region. Its area of intervention in terms of land size is estimated at about 85 square kilometres with varying radii of between 11 and 45 km from Belo.

A nine-man team heads the executive bureau of the group. MIFACIG is a member of a union of 40 common initiative groups under the umbrella ITFU (Ijim Trees Farmers Union). The activities of MIFACIG are centred on: Agroforestry, bee-keeping, growing of medicinal plants, domestication of fruits and agroforestry species, environmental protection, gender and development. Its main include ICRAF, Support Services for Grassroot Initiative for Development (SAILD), International Circle for the Promotion of Creation (CIPCRE), and the American Peace Corps.

Since the year 2005 the association has embarked on group sales in which they sell products including kola. Group sale is a strategy which facilitates the connection between actors in the sub-sector, mostly traders and producers. For the commercialization of kola nuts, group members individually sort their products in different grades. Then the marketing officer of each group determines the available quantity which is communicated later on to trader groups. Generally, a distance price negotiation by phone is organized between traders and producer representatives. When both parties agree on the price, they choose a market day, the place of market and the starting time of market. Each group member comes with his product on the selected day and all products from the group members are put together (after registration) for group sale. At the end of group sale, marketing officers and other executive group members distribute the revenue to each member according to the quantity registered.

Theoretical framework: The collective action theory

The main theoretical framework adopted for our analysis

is the collective action theory (CAT). By definition, collective action is an action taken by a group (either directly or on its behalf through an organization) in pursuit of members' perceived shared interest and therefore, can be referred to as a joint or coordinated action by a group towards a common interest or objective (Vermillion 2001). Kruijssen and Giullianin (2006) argued that initiation of the process of social learning and collective action is caused by a trigger which can be found in many external factors which are usually beyond the control of the individual small holder. This may range from natural disasters to price declines and increased competition. Citing McCarthy (2004), Kruijssen and Giullianin (2006) argued that for a collective action to be successful and useful there should be a constraint to carry out the activity individually and there should be a willingness to undertake the activity as a group demonstrated by a certain level of interconnectedness, motivation and capacity. Tuan et al. (2006) describe collective activities according to five different characteristics namely:

1. Status (for example association, history, network, cluster);
2. Membership (which includes number, size and activities of members);
3. Functions (which is defined to include economic, social and political);
4. Governance (which is made up of selection of members, selective incentives, sanctions, hierarchical vrs participatory decision making);
5. Level (which consist of whether relationships between actors is horizontal or vertical).

According to Place et al. (2002), collective action is largely recognised as a positive force for development in Africa. The authors emphasised that groups help people to reinforce and increase benefits from market transactions and minimise risks, particularly when neither the private sector nor the government can provide any insurance against risk.

Synthesising the research of authors like Wade (1988), Ostrom (1990, 1992), and Baland and Platteau (1996), Agrawal (2001) identified a common list of key elements for enabling successful collective action. The conditions include: small group size, clearly defined boundaries, shared norms, past successful experience, appropriate leadership, interdependence among group members, heterogeneity of endowment, homogeneity of identities and interest and low level of poverty.

In line with this understanding, Barham and Chitemi (2009) developed a collective action model as shown in Figure 1. The model examines the main antecedents and effects of collective action. According to the model, farmer groups are represented under a social structure which includes a number of factors affecting a group's ability to enact successful collective action initiatives such as the group's asset configurations, composition and

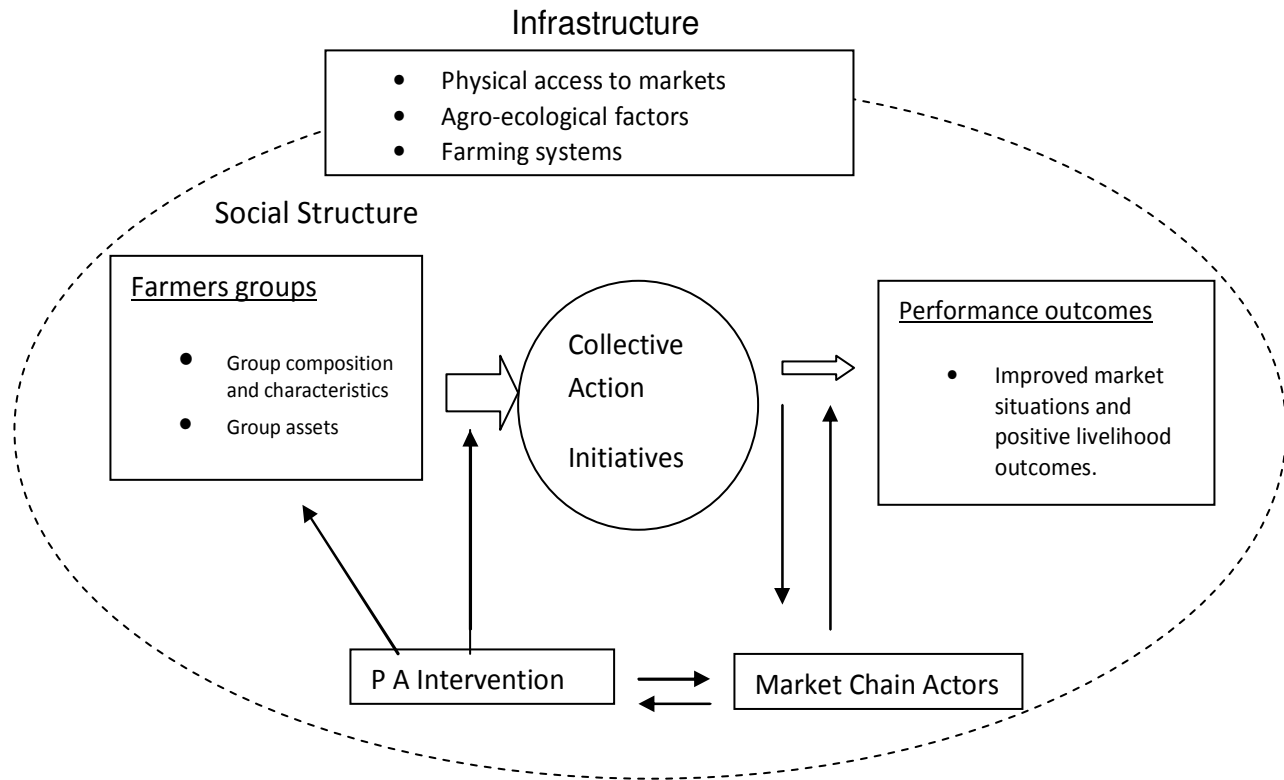


Figure 1. Model of collective action (Adapted from Barham and Chitemi, 2009).

characteristics. The partner agencies (PAs) intervene to enhance human capital in the form of marketing and business skills and also provide some groups with market linkages to other chain actors. The model further reveals that farmer groups also carry out collective action initiatives without linkages from the PA. The performance outcomes represent the extent to which groups have improved their market situation and results in positive livelihood outcomes.

In analysing our research objective, we adapt the collective action framework by Barham and Chitemi (2009).

Research questions

Based on the theoretical framework, the following research questions will be gleaned as a means to answer our research objective:

1. What are the main demographic distributions of the members of the group?
2. What are the main antecedents of group sales in the study area?
3. What are the main and the extent of intervention in the groups' marketing activities?
4. To what extent do producers think group sales have

contributed to their competitiveness and profit levels?

METHODOLOGY

Implementing the model

To address our research questions, a qualitative research methodology was used. Our main focus was to examine the main antecedents of the collective action in the study area which according to the model is determined by the social structure. Subsequently, we also examine farmers' perception of effects of group on marketing performance. In implementing the model, social structure was assessed using variables such as education, social capital and group assets. Collective action was undertaken to be the group sales by the farmers. As our objective is to examine the influence of the group sales on marketing performance, performance outcomes as shown in the model were conceptualized to be the marketing performance which includes the number of farmers involved in the group sales, price level which is a reflection of the group's negotiation abilities and the quantity of products sold by existing members. PA intervention refers to the intervention by ICRAF and other NGOs working in the area. The main group composition and characteristics examined include demographic characteristics of the groups, its members and group maturity. Group assets were measured by existence of social relationships, presence of internal rules and norms as well as socio cultural ties such as language.

In the subsequent parts of the paper, we examine how in the context of MIFACIG, social structure and activities of NGOs influenced group sales and its subsequent influence in improving quantity of kola sold, price perceptions and the number of farmers

involved. The method used for measuring performance is to ask farmers about their perceptions based on the recall of pre and post intervention situations.

Sample selection

A qualitative research approach based on key informant survey is used to obtain in depth information about the operations of the farmer groups in the selected villages. The methodology is clearly different from, but complements the previous studies on collective action of farmers such as Barham and Chitemi (2009) which are predominantly quantitative in nature. In view of the limitations of traditional quantitative bases for knowledge (Goulding, 1998; Somogyi et al., 2010), the qualitative research approach which is adopted for this study is quite relevant.

We used in-depth interviews with key informants. This is against the background that Bitch et al. (2006) suggest that in-depth interviews yield greater details on individual decisions and perspectives. Furthermore, the traditional quantitative research methods are considered to be limited in applicability and scope for agribusiness research compared to qualitative research methods including case studies (Stern et al., 1998; Bitsch, 2005).

Data were collected by interviewing farmers involved in the MIFACIG using stratified sampling procedure. Due to the large surface areas covered by farmer groups, and the desire to obtain a representative sample, villages in the project areas were selected so as to have a spatial representation of the entire project area in the region. Next, the villages with the highest number of farmer groups were identified and taken as a sample village. Overall, 19 villages were selected and a key informant was selected from each for interview. The criteria for selecting the key informant is that the respondent must have been part of group sales in the previous three seasons and is actively involved in other group activities.

The interview questions were basically linked to farmers' opinions and perceptions about the group sales, composition of the groups, their motivation for participating in the group activity and group assets. Further questions concerned farmers' perception of their marketing performance including the quantity of the products they sell, price levels and number of people involved in the group sales were also asked. The results of the data were recorded, transcribed and grouped according to the research questions.

RESULTS

In this section, we discuss the main findings obtain from the qualitative research. The results are grouped according to the variables used in the conceptual model.

Social structure

Demographic

The smallest group in MIFACIG area has a membership of 6 while the largest has 100. On the average group size is 35 members. Larger groups mean a very huge quantity gathered by the group, which is good for group sales. However 91% of groups in the MIFACIG area want to halt recruiting new members. This according to them is to avoid problems, have good management and easy control of group activities. The average number of men involved in each group is 16 and the average number of

women is 19. The average age of members is 38 years. Only 45% of members have basic education.

Group maturity

In MIFACIG area, the first groups came into existence 55 years ago. It is therefore, evident that group activities have been taking place for long. Generally, groups get registered 6 years after creation. Groups work in different areas of livelihoods including credit facilities, wedding ceremonies and funeral arrangements. Some of the groups formed many years ago were for purposes such as providing social support to members in times of trouble such as funerals, weddings and also providing social insurances.

Group's internal rules

The farmers interviewed indicated that group norms, rules and regulations are important part of their collective action activities. Ninety three percent of the groups involved in the study area have internal rules guiding their activities. The rules and norms cover the expected behaviours of members and often pronounce punishments for people who break the rules. Thirty percent of the groups said they use warnings and 27% indicated that they apply their internal rules. According to 24% of the groups, only cases of serious illnesses can disrupt group activities.

Language, ethnic and other social ties

Most group members are bound together by ethnic ties especially as most of them are from the same village. In this regard all group members speak the same native language which is "Kom". A few of them speak Fulani. Most of the farmers were of the view that to speak and understand a common language amongst them was important as it enabled them to understand each other when negotiating with traders. The bond of friendship and family would help group members to establish mutual trust and agree on a given point during group sales. An important condition to accept a new member in the groups is that the person must be ready to abide by the internal rules of the group. Good morality and a capacity to pay dues are very important conditions for becoming one of their members.

Infrastructure

Access to market is not very difficult because roads are manageable. The nearest market (Njinikidjem) is about 10 km from the study villages. There are 2 market days

per week. Although target products are not available at all times. Farmers interviewed were of the opinion that the physical accessibility of the market is not a major problem although road networks are not satisfactory. Taxis are used as means of transportation in the area.

Interventions by NGOs

Most organisations such as SAILD, government extension services, Peace Corps and ICRAF assist farmer groups in the area. Each organisation has varying levels of success in improving farmer groups marketing performance. Government extension services and Peace Corps for instance were involved in useful trainings in agricultural and agroforestry domains. Most of the farmers interviewed were of the opinion that their group activities were not as a result of the NGOs but rather by the recognition of a common problem and interest in accessing better markets and improving their livelihoods.

Marketing performance and livelihoods

Several different marketing performance indicators of the farmers were assessed including quantity sold, size of group memberships and financial improvement as further illustrated:

Volume of sales

Many of the respondents were of the view that group sale has led to improvement in the quantity of Kola nuts that they sell. They claim that they are now able to sell more Kola nuts than they did before the group sale was introduced. Furthermore, farmers indicated that they are now better placed to be able to meet the expenses like school fees for children and household expenditure due to improvement in income associated with group activities.

Group memberships

The informants explained that there have seen significant increases in the number of people involved in the group marketing and there seem to be many more people who are also willing to be involved in the group activity. They attributed this to the fact that non members have recognised how group marketing is leading to improvement in their livelihoods through better prices and income

Financial improvement

Producers indicated that with the collective action, they

are now better placed to negotiate for better prices leading to improvement in their overall financial well-being.

Furthermore, the key informants indicated that the group sales is a good initiative since their financial conditions have improved compared to periods before the group sales. Farmers succeeded in getting higher prices for their products because of three reasons: selling in bulk, better negotiation skills and grading. Farmers realized, on average, a 16% increase in their selling price, as compared to what they would have received through individual sales, and without grading or their newly acquired negotiation skills.

DISCUSSIONS AND MANAGERIAL IMPLICATIONS

From the results of the study, farmers reported that group sales in the MIFACIG area led to improvement in marketing performance and livelihoods. Using the framework shown in Figure 1, it can also be observed that producers' willingness to engage in collective action activities is determined by the nature of the social structure. However, contrary to the model's specification, producers' perceptions were that the group formations were not initiated by presence of NGOs and Government interventions. Rather, they were influenced by socio cultural factors such as pooling of risk among themselves and the desire to help one another in times of problems which go beyond group sales and financial considerations. Thus, whereas intervention by Ngo's facilitated the group sales which farmers perceive as a positive initiative in terms of perceived impact on their livelihoods, the informants think their association or group is not grounded on the group sales. One of the main implications of this is that for group sales in particular and collective action in general to work, organisations should try to target the action or intervention to existing groups instead of trying to create new groups for that purpose. This is so since existing groups might have motivations other than the intervention to put themselves together and therefore, are more likely to be sustainable even after the intervention.

The existence of group assets like common language, common socio-cultural practices, and internal rules and regulations seem to influence the ability of the farmers to organise themselves and manage the groups. Kruijssen and Giuilianin (2007) in analysing the collective action of women in Thailand observed that the initial success and strong presence of shared values, agreements and trust among the women provided the engine for further social learning, collective cognition and capacity building. Thus, based on the literature, the internal group rules and regulations as well as social norms which are influenced by socio cultural practices can enhance success of collective action and subsequently, improve the performance of the marketing activities. This therefore suggests

that in order to enhance effective performance of group sales, members must be made to adhere to some standards including enacting rules and regulations to guide membership of the activity. It is expected that this will help to reduce disputes and misunderstandings among group members which will eventually improve performance.

CONCLUSION AND FUTURE RESEARCH

In this article, we analysed the antecedents and farmers' perception of the effects of group sales on the kola supply chain performance using the case of MIFACIG in the North western region of Cameroon. The findings from the qualitative analysis suggest that existing groups instead of new ones, existence of group norms, rules and regulations, personal relationships and social ties among producers improve farmers' motivation to organise themselves into groups and conduct collective marketing of their produce. Collective marketing also influences farmers' perception of marketing performance through increase in sales by individual farmers, better price negotiations and number of people involved in the group sales in general.

Whilst this research throws more light on the antecedents and farmers' perception of the effects of group sales on the marketing performance, there is a limitation on how the results can be generalised. First, due to the limited number of cases considered the present study will not lead to comprehensive analytical and statistical generalisations. Secondly, it is difficult to establish cause and affect relationships with case studies (Abatekassa and Peterson, 2011). Finally, there are many factors other than improvement in the marketing performance which may be a benefit for the collective action. For instance, group activities can enable farmers to strengthen their social bonds, acquire skills and pool risks. These important outcomes of group activities have not been included in the current research. Future research should therefore investigate into the effects of group marketing on these factors.

REFERENCES

- Abatekassa G, Peterson C (2011). Market access for local food through the conventional food supply chain. *Int. Food Agribus. Manage. Rev.*, 14(1): 63-82.
- Agrawal A (2001). Common property institutions and sustainable governance of resources. *World Dev.*, 29(10): 1649-1672.
- Baland J, Platteau J (1996). *Halting degradation of natural resources: is there a role for rural communities?* FAO/Clarendon Press/Oxford University Press. New York/Oxford/New York.
- Barham J, Chitemi C (2009). Collective action to improve marketing performance: lessons from farmer groups in Tanzania. *Food Policy*, 34: 53-59.
- Bitsch V (2005). Qualitative research: A grounded theory example and evaluation criteria. *J. Agribus.*, 23(1): 75-91.
- Bitsch V, Kassa G, Harsh S, Mugeru A (2006). Human resources management risks: sources and control strategies based on dairy farmer focus groups. *J. Agric. Appl. Econ.*, 38(1): 123-136.
- Facheux C, Tchoundjeu Z, Foundjem D, Mbosso C, Manga TT (2006). From Research to farmer Enterprise Development in Cameroon: case study of kola nuts. A paper presented at an International Symposium on improving the performance of supply chains in the Transitional Economies, 19-23rd July 2005, Chiang, Thailand.
- Goulding C (1998). Grounded theory: the missing methodology on the interpretivist agenda". *Qual. Market Res.: Int. J.*, 1(1): 50-57.
- Kruijssen F, Giuliani A, (2006). Collective action for small scale producers of agricultural biodiversity products. Research Workshop on Collective Action and Market Access for Smallholders. October 2-5 call. Columbia.
- McCarthy N (2004). Collective action and property rights for sustainable development: Local level public good and collective action. In collective action and property rights for sustainable development. Ed. Meinzen-Dick R. and M de Gregorio. Focus brief: Washington DC. International Food Policy Research Institute.
- Ostrom E (1990). *Governing the commons: evolution of institution for collective action.* Cambridge University Press, Cambridge.
- Ostrom E (1992). The rudiments of the theory of the origins, survival and performance of common property institutions. In: Bromly W. (ed). *Making the commons work: theory, practice and politics.* ICS press, San Francisco, CA.
- Place F, Kariuki G, Wangila J, Kristianson P, Makauki A, Ndubi J (2002). Assessing the factors underlying differences in achievements of farmer groups: methodological issues and empirical findings from the highlands of central Kenya. CAPRI working paper, 25. Washington D.C. International Food Policy Research Institute. <http://www.capri.cgiar.org/pdf/CAPRIWP25.pdf>.
- Somogyi S, Gyau A, Li E, Bruwer J (2010). Enhancing long-term grape grower/ winery relationships in the Australian wine industry. *Int. J. Wine Bus. Res.*, 22(1): 27-41.
- Stern JA, Schweikhardt DB, Peterson HC (1998). Using case studies as an approach for conducting agribusiness research. *Int. Food Agribus. Manage. Rev.*, 1(3): 311-327.
- Tuan D, Moustier P, Anh D (2006). Strengths and weaknesses of farmers' collective action: some conceptual background. Presentation for the national workshop "collective action and the participation of small farming households in the market- an opportunity to escape poverty for small farming households. May 11, 2006.
- Wade R (1988). *Village republic: economic condition for collective action in south India.* ICS press. San Francisco, CA.
- Vermillion D (2001). Property rights and collective action in the devolution of irrigation system management. In Meinzen-Dick, R., A. Knox, M. Di Gregorio ed. *Collective action, property rights and devolution of natural resource management: Exchange of knowledge and implications for policy.* Feldafing, Germany: Zentralstelle fur Ernaehrung und Landwirtschaft (ZEL), Food and Agriculture Development Centre.