

Review

What factors influence performance of farmer groups? A review of literature on parameters that measure group performance

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Received 6 February, 2017; Accepted 11 April, 2017

Farmers form and participate in groups in order to benefit socially and economically through collective activities. However, membership in groups alone is not enough to facilitate improvement of livelihoods, owing to the fact that only successful groups would be able to fully exploit their potential and meet the interests of their members. Understanding group performance is therefore a pertinent issue among social researchers and development practitioners working with farmers groups. Findings from literature indicate that scholars have measured performance of group differently, and this can be divided into three broad areas: Group performance measured by level of cohesion/group characteristics, group performance measured by outputs/benefits and group performance measured by both level of cohesion/group characteristics and outputs/benefits. The measurement of performance of groups engaging in the same activities has been much easier, however; for the groups that engage in diverse activities the measurement of their performance becomes even more complicated. This study concludes that group performance can be measured in various ways depending with what researchers and development practitioners want to investigate and achieve.

Key words: Small holder farmers, farmer groups, group cohesion, group performance.

INTRODUCTION

Agriculture is the mainstay of the economy in sub-Saharan countries. It is the main contributor of GDP in the region, a major source of subsistence crops and provides livelihood for a large proportion of the population (e.g., UNEP, 2003). Majority of the residents of sub Saharan Africa live in rural areas and are dependent on agriculture as a source of food and income (Salifu et al., 2010).

Ironically three out of four poor people in Africa depend directly or indirectly on agriculture for their livelihoods (Dorward et al., 2009). This is a result of an array of challenges that farmers face, such as; lack of access to water for irrigation, in ability to access markets, illiteracy and lack of access to quality agricultural inputs, technical training and inability to control pests and diseases (Khalid, 2011). Because of these challenges smallholder

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farmer groups are highly vulnerable to poverty (Curtis, 2013).

Farmer groups are increasingly recognized as a transformative force for improving rural livelihoods in Sub Saharan Africa (Place et al., 2004), these groups have been used as important avenues for reaching the very poor at the grassroots level (Bernard et al., 2008; Develtere et al., 2008). Therefore farmer groups provide an essential entry point for improving agricultural production and income in this region (Nyang et al., 2010).

Membership in farmer groups however, is not sufficient in enhancing sustainable development, these groups should have the capacity to meet their objectives and serve the needs of members (Abaru et al., 2006). For a group to be effective, farmers need to be well organized (Bosc et al., 2001). Groups should have the capacity to deliver relevant services which allows smallholder farmers to participate actively in collective action at the grass root level (Mukindia, 2012).

Measurement of groups' performance is an effective way of understanding the level of development of farmer groups. Understanding group performance is essential in identifying the kind of support farmer groups need to enable them to improve on their service deliver. The categorization of groups according to their performance also facilitates effective monitoring of the changes that takes place as the groups develop over a period of time. Understanding group performance has been a key subject of research by institutions and social researchers. However, identifying the parameters for the measurement of group performance have been a great challenge through the years. Thus stakeholders in this field face constraints in understanding group performance. This study reviews literature on how scholars have measured group performance; this would shed more light on how to go about identifying group level of performance and guide stakeholders in this field on how best to support groups based on their level of advancement.

RESULTS AND DISCUSSION

Literature review show that the measurement of group performance by social researches can be divided into three broad areas:

1. Group performance measured by level of cohesion/group characteristics;
2. Group performance measured by outputs/benefits;
3. Group performance measured by both the level of cohesion/ group characteristics and outputs/benefits.

Group performance measured by level of cohesion/group characteristics

Kifanyi et al. (2013) explored the performance of

community-based organizations in managing sustainable urban water supply and sanitation projects, guided by the following factors; community participation, appropriate technologies and institutional arrangements. The findings signify that overall performance of community-based organizations will depend on full involvement of communities in all stages of project development, implementation and management.

Joy et al. (2008) examined the factors that determine group performance of women-led Agro-processing self-help groups in Kerala India, guided by the following indicators; category of the self-help group (fish processing, copra processing, powder making and groups dealing with ready to eat items), group cohesion (degree in which members are connected to the group and are motivated to remain in the group), group leadership (ability of team members to interact freely without any formal inhibition), team spirit (willingness of the group members to work together in devotion), group decision making (the process of arriving at decisions by the group members through either consensus or a majority vote) and record keeping (regularity in keeping records and their verification which is also an indicator of transparency in group activities). The results indicate that the poor performing groups had very low scores in these indicators, the above factors were therefore found to influence group performance. In order to determine the relationship between the group performance indicators above and socio-economic characteristics of the members, a number of indicators of socio-economic characteristics were explored; education of respondent and spouse, age, market perception, economic motivation, attitude towards self-employment, management-orientation, knowledge about processing, risk orientation, innovativeness and information seeking behavior. The findings indicate that the socio-economic characteristics that contributed towards group performance were; management orientation, information seeking behavior, knowledge about processing, market perception and economic motivation. The least influential factors were; age, education, attitude towards self-employment and innovativeness. Education of the respondent and/or spouse and innovativeness were found to have a significant relationship with group cohesion. Management orientation, knowledge about processing and attitude towards self-employment had a positive and significant relationship with group leadership. The variables on education of the respondent and age showed a negative but significant relationship with group leadership and as educational status increases, participation in self-help group activity reduces. Economic motivation, information-seeking behavior, management orientation and market participation had a significant and positive relationship with team spirit. Increase in team spirit enhanced the market perception of a group, whereas information-seeking behavior, knowledge about processing, management orientation, market perception, risk

orientation and economic motivation were significantly and positively related to group decision making. Finally, market perception, economic motivation, knowledge about processing, risk orientation and information seeking behavior influences the regularity in maintenance of records.

Chamala and Shingi (1997) identified three categories of factors that influence the performance of community groups;

Internal factors

Group composition, group structure and size, group atmosphere, cohesion, group standards and norms, leadership styles, balance between group maintenance needs, individual needs and task needs, development phase of a group, group culture (empowering, controlling), level of group “think” characteristics.

Government and non-governmental agencies

Technical capabilities of extension staff, skills in managing groups, staff attitude and commitments to groups, types of planning method (directive or participative, top down or bottom up or a balance of method, support for field extension officers and formation process of groups).

Community factors

Groups are part of the community in which they exist hence the community influences the success of a group.

Salifu et al. (2012) assessed the influence of leadership and management on the performance of farmer-based organizations (FBOs) in Ghana, results indicate that despite the majority of FBOs claiming to practice democratic principles in selecting leaders, on the contrary the basis of selecting a chairperson has been the age, socio-economic status and the role that individual played during the group formation process. The role of secretary was often left for a member with the highest level of education, whereas the position of a treasurer was often reserved for a female member of the group unless it's a purely male group. Findings further show that the leadership and group members were not aware of what is contained in the constitution and the bylaws. Despite these, the groups organized themselves to suit to their specific collective action activity. It was observed that farmer-based organizations that come up with rules and management styles that uniquely suit them are able to successfully manage themselves. It was evident from the study that the group formation process did not influence the performance of groups. Whether the group was formed by members or external actors could not be easily

distinguished because members organized themselves into groups' in order to obtain benefits from the government or other sources. The motivation behind the formation of an FBO was found to be a better indicator of performance and not the individuals behind its formation.

McCarthy et al. (2002) conceptualized collective action to mean cooperation. Further, the success of collective action was found to be a function of individuals' motivation to contribute to maintenance and abide by rules and regulations of the institution. Collective action involves the capacity of a community as a whole to cooperate and it's influenced by the overall policy environment in which these institutions operate. In a study of collective action in Natural Resource Management (NRM) groups in Burkina Faso, two indicators of collective action were identified; organizational performance and networks. The proxies for networks comprised of density of organizations and density of household participation.

Organizational performance indicators comprised of:

Rules: Total number of rules observed for all NRM organizations.

Activities: Total number of activities observed for all NRM organizations,

Average meetings participation rate: The number of households that usually attends meetings; this number was used to create the percent of households attending meetings for each institution, and a variable was constructed of the average of this percent across organizations.

Average activities participation rate: The percentage of households participating was constructed, and an average was taken across organizations.

Results indicate that all the variables are significantly and positively correlated except the number of activities and membership in non –NRM organizations.

Matthews-Njoku et al. (2009), explored the factors influencing role performance of Community Based Organizations in Agricultural development, the findings indicate that role performance had a significant relationship with income, experience, type of agricultural activity, quality of leadership and membership size.

Thompson et al. (2009) presented the seven habits of highly effective farmer organizations which were described as the essentials of success in high-performing farmer organizations in Africa. The seven habits identified were; clarity of mission, sound governance, strong responsive and accountable leadership, social inclusion and rising of voice, demand driven and focused service delivery, high technical and managerial capacity and effective engagement with external actors.

Accordingly these habits offer a useful checklist of

working principles and practices to assess the performance of farmer organizations in Africa and elsewhere. Organizations can be internally effective by adopting the seven habits; however, it cannot successfully represent its members in the absence of an enabling legal, regulatory and policy environment that guarantees its autonomy.

Aldana et al. (2007) in a study of 40 farmer groups in India, Uganda and Bolivia found out that the success of a group depends on the acquisition of skill sets such as; group organization and management, internal savings and lending, sustainable production, ability to access and apply new technology and market skills.

Rau (2013) in a study of a network of Community Based Organizations in India, found out that the factors that influence effectiveness of a network of Community Based Organizations include: Enthusiasm and commitment among CBO members in support of the networks, implementing partners with creative ideas, sound technical skills, willingness to negotiate important political relationships on behalf of communities, innovation and flexibility that permit ideas to be tested and adapted to suit the circumstances of each state network. Skills in analysis, communication and problem solving, as well as having skills in organizational management and a common goal so that differences do not divide members within it.

Group performance measured by outputs/benefits

Ampaire et al. (2013) investigated the factors influencing the effectiveness of second-tier rural producer organizations (RPO) in linking their members to output markets in Uganda. Effectiveness of the RPO was measured using percentage of RPO members who used the RPO for marketing of at least some of their produce. It was found that RPO size, democratic leadership and higher proportion of women membership have a significant positive influence on the effectiveness of the RPO. Contrary to expectations, RPO leaders trained in leadership skills and involved in related business activities had a significant negative influence on the effectiveness of RPOs. Although there is no clear theoretical explanation for this result, one possible explanation was presented. Leadership trainings received by RPO management team members mainly covered group leadership skills, financial management and bookkeeping. In practice, such training results in stronger institutionalization of rules and regulations within the RPO. In spite of the fact that these rules should serve to strengthen the RPO, the rules also reduce the motivation for some members to market their produce through the organization.

According to Place et al. (2004) the measurement of group performance is a challenge because groups take on many activities over time making the analysis and

comparison of performance very complicated. Therefore the measurement of groups' performance would best be done by use of the outputs generated by the group activities. Therefore the ability of groups to effectively produce achievements (performance) can be measured best by the use of direct outputs. In a study of groups in central Kenya, the common types of direct benefits included; cash or credit from merry-go-rounds or risk-coping groups, animal fodder, improved livestock breeds, household goods, knowledge and spiritual uplifting of members. Although this can be difficult to quantify therefore the proxies that reflect these benefits need to be identified.

Haque et al. (2011) measured effectiveness of Community Based Organization (CBO) micro credit programmes supported by Concern World Wide in Bangladesh based on the ability of a member to assess, use and repay loans on time. Results indicates that repayment performance of CBO microcredit programmes was highly satisfactory, the respondents' income and loan receipt amount, positively contributed to loan repayment whereas respondents age, education, family size and forced saving negatively affected loan repayment. Almost all respondents repaid their loan on time with the hope of getting loans in future. Self-consciousness and proper supervision by the CBO staff and concern worldwide field workers were the other important contributing factors for repayment performance.

Davis et al. (2004) examined the factors that make farmer groups successful in dissemination of information and technologies in Meru, Kenya. Success in dissemination was measured using the number of buck services that took place at each group's buck station. Buck services refer to the number of female goats brought to the group for breeding with the improved buck. The "neighbor adoption index" was the dairy-goat groups' ratings of number of neighbors using dairy-goat technologies. These scores could range from 1 to 4, where 1 = none, 2 = some, 3 = many, and 4 = all. The variables considered to influence success of the groups include; size of the group, amount of member participation, homogeneity of members, jealousy within the group, group capacity, number of linkages, and type of group. Results indicate that the variables that affect the success of dairy-goat groups in disseminating information and technologies included member participation, linkages, and type of group. The size of the group, member homogeneity, degree of jealousy, and group capacity had little or no effect on group success.

Sonam and Martwanna (2012) assessed the performance of smallholder dairy farmer groups in East and central regions of Bhutan. Performance of the groups was measured using the direct benefits from the dairy groups such as; easy market for milk, timely cash income, access to credit facilities, production support, marketing support, processing efficiency, members' representation and members' capacity development

opportunities. Six functional tasks associated with the dairy groups' performance were identified and evaluated; (i) production support; (ii) marketing support; (iii) processing efficiency; (iv) members' representation; (v) records and accounting and (vi) group management, using a likert-type rating scale. Limited group capacity, non-committal membership, poor sense of ownership, inactive participation by the members, heavy dependence on government support, dispersed location and complacent members' attitude were found to negatively affect performance of dairy groups, while the reverse had positive influence.

Group performance measured by both level of cohesion/group characteristics and outputs/benefits

Shiferaw et al. (2006) argues that, depending with the problem under study, certain indicators can be identified as proxies for the different levels of collective action (those that capture the level of cooperation or group action) and the degree of effectiveness of such collective action in attaining the groups' stated objectives. This kind of separation allows the assessment of the level in which such collective action can be attributed to good performance in the form of the final outcomes. According to these scholars, the level of collective action and its performance can be understood by commitment attributes of the individual members to the group activities and objectives, these include the extent to which individual members relate with other members of the group within the existing institutional mechanism, commitment and the extent to which members share a common vision to the group ideals and organizational structure. In a study of producer marketing groups in Makueni and Mbeere Districts in Eastern Kenya, Shiferaw et al. (2006) identified six indicators of collective action; number of elections held since formation of the group, number of members respecting the bylaws of the group, attendance at meetings, annual member contributions to the group, cash capital and agreed annual subscription fees. In order to assess whether high level of collective action influences performance of groups, two indicators were utilized; total assets built over a period of time and total volume of grains traded.

The results show that the number of elections held, involvement of members in decision making, initial startup capital and membership fees are positive correlates of group performance, while distance to the markets and number of villages covered by the group are negatively associated with the effectiveness of the marketing functions of the groups.

Dimelu et al. (2013) assessed the performance of faith-based grass-root, non-governmental organizations (NGOs) in Nasarawa state-Nigeria, guided by four factors; roles of the organization in rural development in the target communities, level of participation of

beneficiaries in the programme, perceived effects/impacts to the beneficiaries and the beneficiaries' perception of the performance of the organization. The findings indicate that the NGO performance was rated to be good in the 11 out of the 13 programmes/activities.

Barham and Chitemi (2009) in a study of farmer groups in Tanzania examined the extent to which certain characteristics and assets owned by smallholder farmer groups facilitate improvement in group marketing performance. The study evaluated a government led program which aims at increasing smallholder farmers' income and food security through a market oriented intervention. Group Marketing Performance Rating (MPR) was developed, ranging from 0 to 2 constructed on the following basis:

Rating 0: The project intervention had little improvement to their market situation.

Rating 1: Some improvement, such groups were able to provide tangible examples on how their market situation had improved from participating in the project.

Rating 2: Huge improvement, these groups showed outstanding market improvements by initiating several collective action activities.

The variables affecting marketing performance rating were identified to include; (1) Infrastructure which is represented by the following variables, distance to markets, road conditions, staple food crops, land, reliable water source and commodity types. (2) The social structure characterized by explanatory variables such as; (i) group assets comprised of wealth rankings, education, providers/partners, membership in other groups, altruism and intra group trust (general, help and money trust); (ii) group composition/ characteristics encompassing; group maturity, group size, activity level, gender categories and leadership by gender; (iii) the group heterogeneity composed of educational level, gender and wealth.

Finally the PA (partner agency) intervention which takes into account the by partner agency and market linkage with which the farmer groups worked and whether or not the groups were actively linked to other market chain actors in an endeavor to improve their market situation. The results indicate that the variables that are strongly associated with improved marketing performance are; reliable water source, activity level and commodity types. Group maturity, partner agency and educational variables are statistically significant factors in improving marketing performance. PA linkages and leadership by gender also indicates some association with improved marketing performance.

According to Bernard et al. (2008) performance of groups is dependent on their effectiveness in providing services to their members. In order to measure performance of village organizations in Senegal and Burkina Faso, two hypothesis were tested in which none of the them was rejected; the groups had weak

managerial capacity and groups lacked sufficient resources to make a difference, results indicate that the governance structure is characterized by bureaucratic procedures and the formalism of rules, groups have a control commission to look into the activities of the board of directors and utilizes the formal accounting systems.

In order to assess whether the quality of governance influences performance, performance was measured by the number of members who have benefited from the group at least once. Correlations were explored between the extent of bureaucracy and performance of groups. Due to co-linearity between variables, four of the variables were re grouped into control variables which equals to one if the organization has a control commission or a written code of conduct and zero if otherwise and a professional management variable which equals to one if the organization maintains either an accounting or registry book, zero if otherwise. Results indicate that greater management capacity is related to performance for village organizations in Senegal, in Burkina Faso greater control is a negative factor for performance. Multi-tasking whereby organizations engage in diversified services lowers the quality of each service even though it allows the organization to serve a wider clientele. In conclusion performance is negatively affected by low professional management capacity and lack of resources.

Akpabio and Aboh (2007) in an attempt to identify the significant factors affecting the success of women NGOs working with local women groups in Ibom state Nigeria found out that; ability to fulfill beneficiaries expectations, high volume of credit provision and income levels affect the success of groups. Gyau et al. (2011) studied the role of collective action in improving market access of small holder producers of agro-enterprise products in Cameroon. Results indicate that Collective action will succeed when internal factors such as; favorable group size, group norms, knowledge of market information and voluntary collaboration among members exist. These should be in the context of an enabling environment, which includes favorable policies and regulations.

Conclusion

Different scholars have measured group performance differently, others have measured group performance based on the level of cohesion/group characteristics, others have measured group performance based on the outputs and benefits members gain from the group, while other social researchers have measured group performance based on the combination of the two, which is both the output/benefits and level of cohesion/group characteristics. Measuring group performance is a great challenge especially when farmer groups engage in various activities, nevertheless understanding group performance is an important aspect for social researchers

and development practitioner. How they measure group performance will be dependent on what is important to them. Understanding group performance is important for the government, organizations and social researchers working with farmer groups to enable them understand the various levels of development of groups, guide them on how best to support farmer groups based on their level of performance and finally facilitate effective monitoring and evaluation of groups over time.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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