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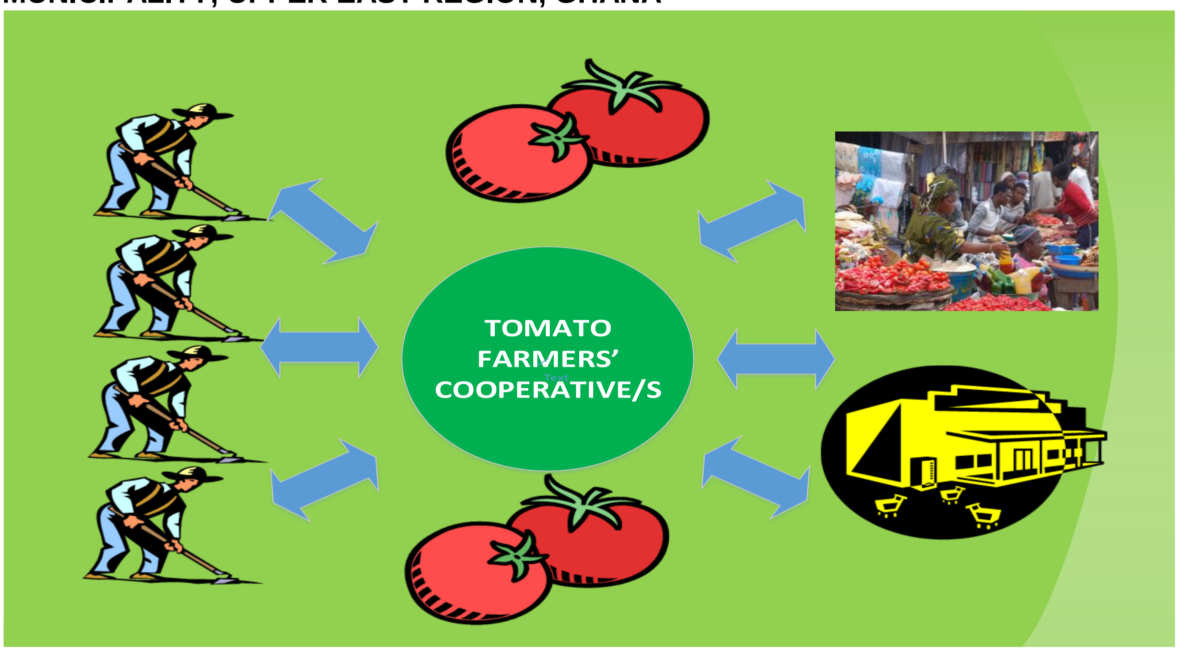
LINKING FARMERS TO MARKETS THROUGH COOPERATIVES: AN ASSESSMENT OF THE VIABILITY OF TOMATO FARMERS' COOPERATIVE/S IN THE BOLGATANGA MUNICIPALITY, UPPER EAST REGION, GHANA



A Research Project Submitted To
Van Hall Larenstein, University of Applied Sciences
In Partial Fulfillment of the Requirements for the Degree of Masters in Agricultural Production Chain Management, Specialisation Horticulture Chains.

By

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DEDICATION

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LIST OF ACRONYMS

AESCs	AGRICULTURAL EXTENSION SERVICE CENTERS
ATOCOFSO	ATOLENENGA COOPERATIVE FARMERS SOCIETY
BOD	BOARD OF DIRECTORS
BONACOFSO	BONGO NYARIGA AMANZELE COOPERATIVE FARMERS SOCIETY
BUSAC	BUSINESS SECTOR ADVOCACY CHALLENGE FUND
DOC	DEPARTMENT OF COOPERATIVES
FAO	FOOD AND AGRICULTURE ORGANISATION
FBO	FARMER BASED ORGANISATION
FOs	FARMER ORGANISATIONS
GCC	GHANA COOPERATIVE COUNCIL
GNTTTA	GHANA NATIONAL TOMATO TRADERS AND TRANSPORTERS ASSOC.
ICA	INTERNATIONAL COOPERATIVE ALLIANCE
IFAP	INTERNATIONAL FEDERATION OF AGRICULTURAL PRODUCERS
ILO	INTERNATIONAL LABOUR ORGANISATION
IIRR	INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION
KIT	ROYAL TROPICAL INSTITUTE
LI	LEGISLATIVE INSTRUMENT
MOFA	MINISTRY OF FOOD AND AGRICULTURE
NGO	NON GOVERNMENTAL ORGANISATION
POs	PRODUCER ORGANISATIONS
TOPAN	TOMATO PRODUCERS ASSOCIATION OF NYARIGA
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME

ABSTRACT

The research was carried out in order to recommend the regional and municipal offices of the ministry of food and agriculture Upper East Region, whether to form tomato farmer cooperative/s or not in its attempt to link farmers to markets. This was done by assessing the performance of three tomato farmers' cooperatives in the Vea and Nyariga communities of the Bolgatanga Municipality, and also the motivations of farmers and tomato market queens to transact business with a farmer cooperative.

Interviews were done with management of each and five randomly selected members of the three small tomato cooperatives to assess the cooperatives' performances. An interview was carried out with the spokesperson of the Ghana National Tomato Traders and Transporters Association. And twenty nonmember cooperatives tomato farmers were randomly selected from various tomato production sites in the Bolgatanga municipality for interview.

The research revealed that the cooperatives were performing poorly. Internally the cooperatives' elected executives did not have the expertise necessary to manage the cooperatives. They also lacked technical staff to provide extension services to members and board of directors to advice management. The cooperatives could barely meet their financial needs to provide some services to members and could not obtain finance from net surpluses and financial institutions. The cooperatives did not have any business and financial plans to determine their future line of business. The cooperatives did not provide members access to markets and had not diversify client portfolios. The cooperatives did not diversify their product into different qualities and also into different products besides tomatoes. The cooperatives however had good relations with their internal customers (members) and the community. However relationship with other important stakeholders necessary for cooperatives' improvement was weak. The productivity of tomatoes for members had remained the same and sometimes reduced. The members had continuously used the same variety over time. The cooperatives were however able to provide members with some production based services like access to fertilizers, extension trainings from extension officials and NGOs and sometimes tractor services. They did not however provide members with services like access to markets, market information and credit which the members really wanted.

The research showed that farmers were most likely to join a farmer cooperative because, they were operating in a spot market. The farmers encountered problems like low yield and volumes due to tomato plant death at flowering, price fluctuations and variations from production site to another. The influence lead boys had, by directing market queens away from farmers to Burkina Faso for their personal gains. And the non-existence of market relationships with their preferred buyers the market queens. Farmers had positive perceptions about farmer cooperatives and saw them as a means to bringing farmers together for united actions. But most did not know farmer cooperatives could play a marketing function and would join a farmer cooperative because of the benefits associated with them. However, governance problems would most especially influence their decision not to join.

The research showed that, market queens were likely to trade or do business with a farmer cooperative because they encountered problems in their trade, i.e. transit and logistical problems when crossing into Burkina Faso, lead boys unjustified levies for the services rendered them, low quality of tomatoes as a result of overuse of agrochemicals by farmers affecting shelf life, and lastly the nonexistence of farmer-buyer relations creating uncertainties with volumes and quality. The market queens had positive perceptions about farmer cooperatives, and saw farmer cooperatives as an opportunity to strengthen their relationship with farmers, and finding common

grounds to set standards (volume and quality) in the trade. They however will deal with a farmer cooperative on the terms of trust and transparency before going into any contract with it.

Based on the findings the Upper East Regional and Bolgatanga Municipal offices of the Ministry, were recommended to form the tomato farmers' cooperative taking into consideration the following: (1) cooperative education for farmers, (2) production site based groups to ensure internal cohesion, (3) cooperative management training (4) facilitate groups draft business and financial plans, (5) facilitate the establishment of a two level cooperative structure to increase supply base, collective marketing, bargaining power and (6) facilitate cooperatives' linkage with stakeholders through various workshops and seminars.

1 INTRODUCTION

1.1 Background

The three regions in northern Ghana, namely the Northern Region, Upper East Region and Upper West Region are generally regarded as the poorest in the country. The economy of the Bolgatanga municipality is dominated by agriculture accounting for about 30% of the economic activities in which the populace are engaged in, (UNDP-Ghana, 2010).

According to the UNDP-Ghana (2010), Human Development Report of the Bolgatanga Municipality, dry season farming plays a major role in agriculture in the municipality. Developed irrigation schemes like the Vea Project provides 637.5 hectares whiles other seven small scale dams provide 78 hectares of farm land for irrigation purposes.

The Bolgatanga municipality and the region at large is known for the mass production of tomatoes during the dry season from October to March. Production of tomatoes is done from various sites besides the mentioned areas above, which include along the Black Volta river banks and dug outs. According to Robinson and Kolavalli (2010b), the seasonal and geographical production of tomatoes, together with high demand for it in the southern half of Ghana, influence the flow of tomato across space and time. With Ghana's Upper East Region and Burkina Faso supplying almost entirely the fresh tomato needs in the country around late December through April/May.

Tomatoes production in Ghana and for that matter the Bolgatanga municipality and the region at large is seasonal (October – March) under open field irrigation systems compared to greenhouse production systems in the developed countries. It is a source of livelihood for the youth both males and females especially during the long dry season each year after the rainy season.

Tomato production in the municipality is mostly dominated by males with few females involving in it. Most females are involved in the tomato production during harvesting as harvesters and where females are involved in the main production it is sometimes often less than an acre. The production of tomatoes is mostly dominated by smallholder farmers with a land size of about 0 - 2 acres.

Tomato production in the municipality does not come without constraints. Agriculture in general in the municipality and the region at large is faced with production constraints ranging from drought, erratic rainfall, and low yields. In the production of tomatoes in the municipality and the region, farmers are faced with production constraints all year round. Clottey, Karbo and Gyasi (2009), identified the following constraints; high cost of production, poor seed quality, high incidence of pests and diseases, lack of storage facilities, difficulty in accessing credits and no ready markets, when they did an interview of tomato farmers at the Vea irrigation dam site in the Bolgatanga Municipality. Another research by Robinson and Kolavalli (2010a), in a survey of 100 growers covering the 2008-2009 season from three tomato producing regions of Ghana, Greater Accra, Brong Ahafo and Upper East Region found out the following constraints in the sector; use of local varieties, poor land husbandry, low average yields, poor market access, high input cost and competition from imports.

Usually at the start of the tomato season, farmers start production without having any idea who would come to buy the tomatoes and at what price. Most at times at harvest, farmers are caught between letting the tomato go rotten in their farms or accepting the lower prices offered them by the market queens who happen to know the production site due to previous transactions before. Instances where farmers try to negotiate on the price, market queens most often threaten to leave the production site to different ones (Laube, Awo and Schraven, 2008), where farmers are ready to accept the prices offered by them per crate. Tomato farmers each year go into production irrespective of whether they have someone to buy at harvest or not, with a few especially those who start production early profiting whilst some at times lose their total investments as they are not able to find buyers or prices offered are so low. A number of suicide cases in the tomato sector especially with farmers have been reported in the Bolgatanga municipality and the region at large.

Issahaku (2012), in his analysis of the constraints in the tomato chain interviewed 30 farmers, 24 retailers and 10 wholesalers from the upper east region and also identified low prices, price volatility, lack of access to credit, poor quality of tomatoes, inadequate storage and warehousing facilities, inadequate transportation facilities, dispersed nature of supply, high interest rates and lack of adequate information as the constraints facing the various actors in the chain.

1.2 Marketing of Tomatoes in Ghana

The tomato trade unlike in the production is dominated by females and where males are involved they are either porters or lead boys. The tomato trade is most influenced by the traders known as "market queens", who travel all the way from the big cities of Accra and Kumasi with their own trucks to buy the tomatoes in the Bolgatanga municipality and the Upper East Region (Laube et al. 2008). The tomato traders have an association known as the Ghana National Tomato Traders and Transporters Association. They are also the most organised group of actors in the tomato chain in Ghana and therefore have lots of influence in terms of volume bought and prices offered farmers. Though there are tomato traders in the Bolgatanga Municipality, volumes bought as compared to the market queens is not significant to influence prices.

According to Ngeleza and Robinson (2011), the tomato trade started in Ghana's capital city Accra. The large Makola Market in Accra has long played a vital role in sub-regional trade. Later, Kumasi in the Ashanti Region, also became a key player as another central point for offloading tomatoes from farm gates to be distributed to other parts in the region and beyond.

Tomato marketing in Ghana is characterised by a "two level" system in which itinerant traders the market queens are the direct connection between rural farmers and city consumers. These market queens constitute a strong union of market traders that controls the distribution network of tomato in the country (Ngeleza and Robinson, 2011).

The largest wholesale markets for tomato are in Kumasi and Accra (Makola and Agbogbloshie), followed by other important markets in Techiman (Brong Ahafo), Tamale (Northern Region), and Navrongo (Upper East), that are located in key growing areas. The market queens have strong control over these larger markets located near to key consumption areas, restricting who can bring tomatoes to the market and how many trucks can bring tomatoes to the market on any one day (Robinson and Kolavalli, 2010b).

In Ghana there are various market channels through which farmers sell their tomatoes. Robinson and Kolavalli, (2010b) found that majority of farmers sell through one market channels (through the itinerant traders) and others through multiple channels other than the itinerant traders.

Some farmers have long-term relationships with traders which involves informal credit transactions so are more likely to be able to sell their tomatoes. However, for many farmers, no such special individual or community relationship exists (Robinson and Kolavalli, 2010b). Farmers have seen themselves and the consumers to be the least powerful, being passive acceptors of prices that are determined by traders, whilst the traders and lead boys, at the center of the value chain, are perceived to be most powerful deciding whose tomatoes are collected and taken to the market, and thereby influencing prices at the farm gate and the urban markets (Robinson and Kolavalli, 2010b).

According to KIT and IIRR (2008), both farmers and the market queens have challenges they face in the business such as: floating traders dumping tomatoes into the market causing glut and loss of investment by the traders; imported canned tomatoes competing with fresh tomatoes in the markets; high cost of transport as a result of rising fuel prices; overuse of agrochemicals by farmers reducing the shelf life of the product; high cost of farm inputs; and poor roads to production sites.

This indicate that not only the farmers are at the suffering end but also the market queens too in the tomato trade. They are exposed to a number of risks right from travelling all the way down south and up north to buy tomatoes (Laube *et al.* 2008). They are prune to risks like accidents, arm robbery attacks and the tendencies to lose entire investment as the tomatoes may rot on the way due to the time spent collecting and transporting the tomatoes down south to Kumasi and Accra.

Traders spend time locating production sites, negotiating prices, collecting tomatoes from one production site to the other. Both farmers and traders have at times exhibited opportunistic behaviours as they try to take advantage of each other especially the putting of low quality tomatoes at the bottom of crates by some farmers, traders' threat of by-passing farmers in the region to neighbouring Burkina Faso to buy in order to get farmers desperate to reduce prices.

The tomato chain in the municipality and the region can thus be characterised to exhibit information asymmetry, price fluctuations, non-business relationships and high transaction cost.

Problem Owner
The Ministry of Food and Agriculture, Upper East Regional and Bolgatanga Municipal Offices

1.3 Research Problem

There have been a number of studies on tomatoes production and marketing in Ghana and for that matter the Upper East Region. There have also been studies on the constraints faced by farmers in the production and marketing of tomatoes in the Region too. Some of these researches were done because of the problems tomato farmers in the Upper East Region faced almost every year in the production and marketing of their tomatoes. Most stakeholders in the region have suggested the formation of tomato farmers' cooperative/s for the farmers, so that it could coordinate their production and marketing activities to enhance their competitiveness. Though there are three registered tomato cooperatives in the Vea and Nyariga Communities, (TOPAN, BONACOFSO and ATOCOFSO) there are no such tomato cooperatives in the other communities of the municipality. Most tomato farmers therefore operate individually each year in the various production sites in the municipality and region.

The Regional and Municipal Offices of the ministry of food and agriculture in the Upper East Region are always the first point of call for farmers and stakeholders, when tomato farmers in the region are facing problems in both production and marketing each year. In view of the promotion by the stakeholders that tomato farmers' cooperative/s, be formed. The ministry which would take a leading role, does not know the performances of the current registered tomato cooperatives in the Vea and Nyariga communities. Farmers' and traders' (market queens) motivation to trade with a tomato farmers' cooperative in the Bolgatanga Municipality and the Region at large is not known.

1.4 Research Objective

To recommend to the Ministry of Food and Agriculture whether to initiate the formation of Tomato Farmers' Cooperative/s in the Bolgatanga Municipality and the Region at large in the attempt to link farmers to markets. And also to identify areas of cooperative structure to pay attention to in the formation of the Cooperative/s by assessing the performance of the three existing registered Tomato Cooperatives, the motivations of farmers and traders to trade with a tomato farmers' cooperative/s.

1.5 Research Questions

1. What is the performance of the existing three Tomato Farmers' Cooperatives in the Bolgatanga Municipality?
2. What could motivate farmers to or not to join a Tomato Farmers' Cooperative?
3. What is the likelihood of Market Queens to trade with a Tomato Farmers' cooperative in the Bolgatanga Municipality?

1.5.1 Sub Questions

1. What is the performance of the existing three Tomato Farmers' Cooperatives in the Bolgatanga Municipality?
   a) What is the internal organisational performance of these cooperatives?
   b) What is the marketing performance of these cooperatives?
   c) What is the production performance of these cooperatives?
   d) What is the performance of the cooperatives as perceived by the members?

2. What could motivate farmers to or not to join a Tomato Farmers' Cooperative?
   a) What is the current marketing situation of individual farmers?
   b) What are their perceptions about Farmer's Cooperatives?
   c) What factors influence their decision to or not to join a Farmers' Cooperative?

3. What is the likelihood of Market Queens to trade with a Tomato Farmers' Cooperative in the Bolgatanga Municipal?
   a) What is the current marketing situation of the Market Queens?
   b) What are Market Queens' perceptions about Farmers' Cooperatives?
   c) What influences could Farmers' Cooperatives have on their trade?
   d) What relationship could be preferred by Market Queens with the Farmers' Cooperative?

Definition of Terms

Market Queens: A group of female travelling traders, who buy tomatoes from various farm gates to city consumers in Ghana.

Led Boys: A group of young men who help the market queens locate farm gates and sometimes serve as interpreters when language becomes a barrier.

2 LITERATURE REVIEW

2.1 History of Cooperative in Ghana

According to Kayenwee (2001), formal cooperative tradition in Ghana started around the 1920s when the British colonial government introduced the concept to the cocoa sector. However, cooperatives already existed informally in the country in various forms and was known as "*Nwoboa*" among farmers in the Akan speaking communities.

Cooperatives today in Ghana are in every sector of the economy and accepts people from all ranks of the society. The sectors where cooperatives existed significantly in Ghana include distilleries, poultry, crop production and marketing, pharmaceutical production and marketing, fisheries, marketing and distribution of household consumer durables, transport, savings and credit mobilization, textiles and dress making, printing etc. The Department of Cooperatives (DOC) and the Ghana Cooperative Council (GCC), classified cooperatives into four broad categories namely agricultural cooperatives, industrial cooperatives, financial cooperatives and service cooperatives. And that the cooperative movement in Ghana is very heterogeneous given the diversity of sectors in which members operate, (Tsekpo, 2008).

Oppong-Manu (2004) puts the number of registered cooperatives in Ghana at 2,200 (1,080 agricultural cooperatives, 740 industrial cooperatives, 241 financial cooperatives and 139 service cooperatives). According to Tsekpo (2008), the GCC and the DOC estimates that approximately 25% of the economically active population in Ghana are members in the cooperative sector and that about 46.2% of registered cooperatives as at 2004 are agricultural cooperatives.

Involvement of government in cooperative activities including the introduction of cooperatives may have resulted in the nonperformance of some cooperatives and also their current structure. Therefore support from government often disorients them, making them consider themselves as subvented organizations rather than member-owned and democratically controlled enterprises with a mission to produce and share surplus among members (Tsekpo, 2008).

2.2 What are Producer Organisations or Cooperatives?

According to the International Labour Organisation (ILO), (2013) a cooperative is defined as an "autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise." The International Cooperative Alliance (ICA), (2011) also defines a co-operative as an "autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise".

Bijman, (2007) defines agricultural cooperatives as common form of organisations for marketing farm products both in the developed and developing countries in order to support the economic well-being of their members. According to Stockbridge, Dorward and Kydd (2003), "farmer Organisations (FOs) take many different forms, varying in both size (of membership) and the services they provide and that by the definition of the International Federation of Agricultural Producers (IFAP 1992, p.4) farmer organisations include any of the following: farmer groups and pre-cooperatives; farmers' associations, federations and unions; agricultural cooperatives owned and controlled by their members; chambers of agriculture having a general assembly elected by farmers".

2.2.1 Cooperative Principles

According to the International Labour Organisation (2013) and International Cooperative Alliance (2011) cooperatives have principles and these guide them to put their values into practices. The principles of cooperatives are:

- **Voluntary and Open Membership:** Are voluntary organisations, open to all persons irrespective of gender, social, racial, political or religious differences.
- **Democratic Member Control:** Democratic organisations controlled by their members, who actively participate in making decisions. Members have equal voting rights (one member, one vote).
- **Member Economic Participation:** Members contribute equitably to, and democratically control, the capital of their co-operative.
- **Autonomy and Independence:** Co-operatives are autonomous, self-help organisations controlled by their members.
- **Education, Training and Information:** Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives.
- **Co-operation among Co-operatives:** Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures.
- **Concern for Community:** Co-operatives work for the sustainable development of their communities through policies approved by their members.

2.2.2 Functions of Producer Organisations/Cooperatives in Value Chains

According to Bijman (2007), cooperatives play the following functions among several others in order to enhance the success of its members; collective marketing of farm products, collective purchasing of inputs, sharing of risk and collecting and transferring market information.

According to Penrose-Buckley (2007), producer organisations/cooperatives can provide both business oriented and social oriented services to members, once they have enough money from their marketing activities to take care of the social aspects. The paragraphs below are the business oriented functions and services provided by POs as asserted by Penrose-Buckley (2007).

- ✓ **Input Supply**: POs often buy inputs in bulk, at lower prices, and then supply them to their members. In fact, some POs are set up solely to provide agricultural inputs more cheaply to their members.
- ✓ **Production Services**: as small-scale producers generally have limited assets and skills, POs frequently provide extension services and access to equipment, such as tractors, to help members increase their productivity and improve the quality of their produce.
- ✓ **Financial Services**: access to cash loans and input credit is a very important service provided by many POs. Often these services are managed by an independent structure, where most of the current members are also members of a savings and credit co-operative.
- ✓ **Training**: in addition to extension training, many POs provide training in literacy, numeracy, basic accounting, and report keeping, in order to help members manage their own business activities better and improve their understanding of the PO's business.
- ✓ **Quality Control**: to meet the demanding quality and food-safety standards of some markets, POs need to monitor and control the production process and the quality of the final product they sell.

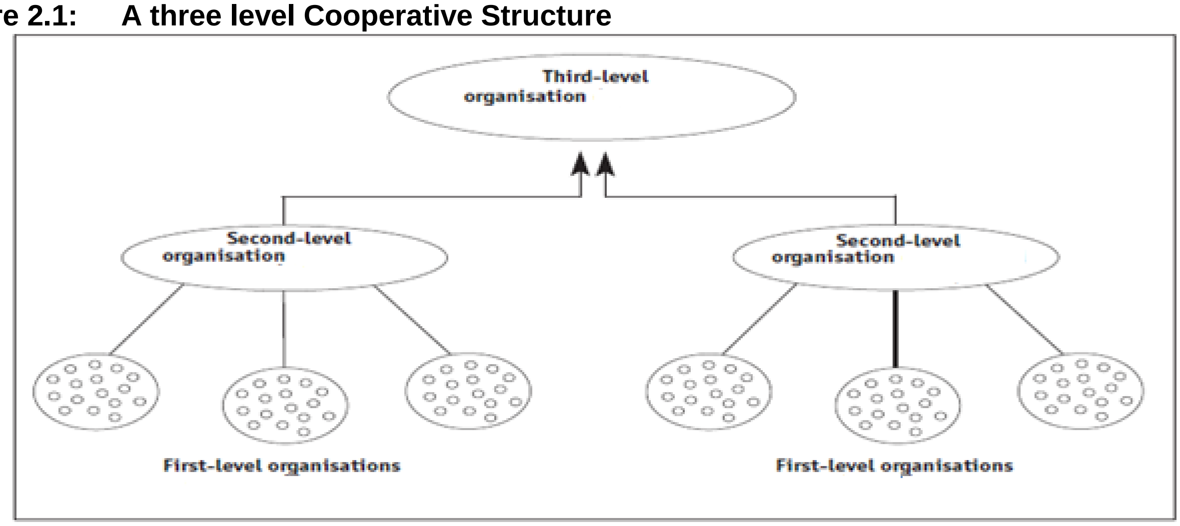
- ✓ **Coordinating Production**: to take advantage of different market opportunities and respond to the needs of buyers, POs have to coordinate the individual production of their members. For example, POs can meet the demand of buyers, who expect a continuous supply of fresh produce throughout the season, by organising members to plant their crops at different stages during the planting season.
- ✓ **Output Marketing**: marketing members' produce is the core service provided by most POs. To do this successfully, POs have to perform a range of tasks, including analysing market information, identifying market opportunities, negotiating sales, collecting, storing and transporting produce, and, of course, paying members.
- ✓ **Processing**: some POs engage in processing activities in order to add value to their produce and access markets further along the market or value chain.
- ✓ **Trading:** some POs become traders, buying and selling produce from producers other than just their own members, in order to meet the quantity, variety, or consistency of supply demanded by certain markets.
- ✓ **Retailing:** occasionally, some POs get involved in retailing activities, (Penrose-Buckley 2007)

Bijman (2007), asserts that new functions have been taken up by cooperatives that want to improve their position in the supply chain and these functions include improving and guaranteeing product quality, enhancing logistic efficiency, reinforcing information exchange and strengthening innovation.

2.2.3 Cooperative Structures

As POs grow and membership increases, they sometimes become difficult to manage in a single organisation. In order to maintain the trust that exist among members, membership should be kept as small as possible preferably 15 and 30 members, not any larger. However, small numbers would affect the scale of their business and bargaining power to compete in the market. To meet both needs, small groups and increased scale, POs often bring together a number of small, first-level organisations, under a new, 'second-level' organisation, which represents and provides services to these smaller POs. In some cases, these second-level organisations may even come together to create a 'third-level' organisation (Penrose-Buckley, 2007).

Figure 2.1: A three level Cooperative Structure



Source: Penrose-Buckley, (2007, p.40)

2.6 Factors Influencing Performance of Producer Organisations/Cooperatives

Cooperatives or Producer Organisations are both affected by internal and external factors in the measurement of their success. In an analysis of literature on natural resource management groups by Markelova and Mwangi (2010), they identified Institutional arrangements and external environment factors that influence the performance of the groups. Koopmans (2006) recognised these two factors externally affecting cooperatives performance. Thus the prevailing and future market conditions and opportunities defines to a level the success or failure of a cooperative. Nonexistence of legal, organisational or political barriers for farmer groups to elect their leaders democratically also plays a part in the success of a cooperative.

The internal factors affecting the performance of Cooperatives all over the world is discussed much further in this document.

2.6.1 Internal Factors

2.6.1.1 Membership Base

Internal cohesion, characterised by a common sense of purpose and responsibility amongst members, is clearly important for successful cooperation amongst farmers and that various other factors can contribute to such cohesion which include, homogeneity, kinship, traditional group activities, small group sizes that permit regular direct contact between members, transparent rules and records keeping, regular meetings and elections, and a written constitution designed and agreed upon by all members (Stockbridge *et al.*, 2003).

Banaszak (2008) in an interview with 62 farmers' cooperative in Poland whose main aim was to organise joint sales of output produced individually by their members identified that, the larger the group, the more likely it was to be successful because on the one hand it might decrease transaction costs, and on the other hand lower the danger of internal rent seeking and opportunistic behavior. And also that, business relationship among members and member selection process during cooperative formation stage was a factor.

Bijman (2007), pointed out that members commitment to the cooperative is also important factor and that when cooperatives focus on customers and less on members, they are likely to lose the commitments of members to stay as members. Member heterogeneity could also cause the cooperative to supply heterogeneous products when customers require homogeneous products affecting it. In line with this Koopmans (2006), also asserted that Committed and motivated members thus motivated farmers committed and interested in an economic initiative to solve a common problem is also essential for cooperative success.

2.6.1.2 Governance, Leadership and Internal Democracy

According to Stockbridge *et al.* (2003) democratic control is usually considered to be one of the pre-requisites of performing Farmer Organisations, the leadership style in FOs should ideally reflect this. For an FO to operate effectively, it needs good leadership and good leadership is a function of the personal qualities and skills of individual leaders, and also a function of its perceived legitimacy from the perspective of members. Legitimacy in leadership in a voluntary, membership-based organisations, should also be derived from democratic processes in which leaders are elected by members, decision-making is open and transparent, and governing bodies have a clearly defined and well understood mandate. Unless this is the case members may be unable to identify sufficiently with the organisation and its aims, and may cease to participate actively in the organisation and its undertakings. Chibanda, Ortmann and Lyne, (2009), points out that good governance of cooperatives promotes discipline, transparency, independence, accountability, responsibility, fairness and social responsibility. Koopmans (2006), also asserts that, the internal governance mechanisms like rules and by-laws, decisions on general policy issues, elections, appointment and dismissal of board of directors, approval of budgets play an important role in the success or failure of a cooperative.

Markelova and Mwangi (2010), in an analysis of literature on natural resource management groups, identified Institutional arrangements such as organisational structures and rules as important for shaping the operations of farmer groups; simple and understandable rules increase compliance and are easily monitored (in Agrawal & Ostrom, 2001), monitoring and coordination costs reduced (in Poulton & Lyne, 2009; Shiferaw et al., 2008). Sanctions and low-cost judgments are also important, together with established accountability and enforcement mechanisms (in Stockbridge et al., 2003). Rules made by the group members themselves and adapted to the local context rather than imported have a higher chance of being understood and followed, which would contribute to the effectiveness and sustainability of collective marketing efforts (in Agrawal, 2001; Markelova & Swallow, 2008). This was also found out by Markelova, Meinzen-Dick, Hellin and Dohrn (2009) that, ability of the groups to come up with their own rules, and not depend entirely on externally-imposed rules, is especially important for success.

According to Stockbridge *et al.,* (2003), there should be a clear identity and division of responsibility between executive managers charged with the day to day running of the organisation, the board of directors who represent the interests of members, and members themselves. Voting procedures and consultation processes for different types of issues need to be clearly defined. Besides the ability of individuals to carry out their role in the organisation will have a significant effect on the organisations capacity to meet objectives. Matching roles to abilities is therefore important.

Banaszak (2008) in an interview with 62 farmers' cooperative also identified leadership strength to affect success as the leadership might decrease internal transaction costs and thus make the organisation more competitive, and leadership increases the chances of coordinating members on efficient equilibria and facilitates cooperation.

2.6.1.3 Management of Financial Resources

A cooperative's ability to raise capital has implications for the objectives a cooperative sets for itself. Cohesion and sustainability are more likely in groups that are able to acquire their own savings in order to undertake cooperative activities, either through membership fees or through revenues generated through economic enterprise. (Stockbridge *et al.,* 2003).

According to FAO (2001) A farmer group and for that matter a cooperative should have a well-defined group income-generating activities and a high level of self-reliance, should have the ability to manage their financial affairs efficiently and to repay debts promptly, should have sufficient group savings to cover their own needs and any risks or costs associated with their operations and development. Chibanda *et al.* (2009) asserts that institutional problems, which arise from poorly defined property rights in traditional cooperatives, give rise to low levels of equity and debt capital, reliance on government funding, low levels of investment, and subsequent loss of members.

Bijman (2007), points out that several factors influence the success of cooperatives in their attempt to improve their position in the supply chain and one of the factors include finance thus capital investments into production and postharvest processes to meet customer requirements. Koopmans (2006) also asserts that sufficient amounts of capital or cash from sources like the members, net surpluses generated by the cooperative and external sources also contributes to the success or failure of a cooperative. Shiferaw, Obare and Muricho (2008), put it that successful groups exhibited increased, member contributions and initial start-up capital. Inability of groups to pay on delivery, resulting from lack of capital credit, is a major constraint that compromise competitiveness of marketing groups relative to other buyers and that interventions that improve mechanisms for improving access to capital was important.

2.6.1.4 Entrepreneurial Skills

Leaders of farmer organisations should have good communication skills, treasurers need good numeracy skills, and secretaries should possess minimum levels of literacy, (Stockbridge *et al.,* 2003). According to Bijman (2007), corporate governance problems also affect the successes of cooperatives in their attempt to improve their position in the supply chain as conflict of interest may arise as to whether to serve the interest of members or customers; may experience difficulty in decision making on high risk investment needed for the cooperative success; functional switch between cooperative board and management. In line with Bijman (2007), Stockbridge *et al.* (2003), asserts that establishing the right balance between the need for democratic control and member participation on the one hand and the need for swift commercial decisions on the other, is one of the key challenges facing relatively democratic organisations such as Farmer Organisations. For in a commercial environment too much membership participation hampers decision making, resulting in missed opportunities.

Koopmans (2006), points out that committed leadership thus an effective board of directors coupled with qualified and professional management team is essential for the success of a cooperative. And that a cooperative with a business plan outlining both the short and long term vision and required investment to be made is very essential for the success of the cooperative. Chibanda *et al.* (2009), try to point out that sometimes lack of entrepreneurial skills causes governance problems as it is strongly linked to low levels of education, lack of production and management skills training, weak marketing arrangements and consequent low returns to members as patrons or investors. This is also highlighted by Shiferaw *et al.* (2008) when they said that interventions that improve effective strategies for risk management and enhancing the business skills of farmer marketing groups are necessary for these groups.

The rapidly evolving business world forces cooperatives to adjust and adapt or face the possibility of jeopardizing their continued survival. A competent, knowledgeable manager will serve as an integral link in the implementation of business practices designed to make future cooperatives viable and efficient businesses that effectively serve member needs, (Adrian and Green, 2001).

2.6.1.5 Marketing and Product

According to Markelova *et al.* (2009), higher-value products, often perishable or involving processing, require greater technical skills, but also offer greater returns to collective marketing compared to staples. This findings was in line with the findings of Barham and Chitemi, (2009) that groups that dealt with crops with inherent market potential, were far better positioned to improve their market situation than the others.

According to Penrose-Buckley (2007), producer organisations can improve their marketing strategy and business income by raising the volumes of sales, i.e. to produce and sell more of the same product, adding value to the product, i.e. improving the quality of the product; by processing and dealing directly with buyers of the processed product; and differentiation, i.e. giving their products a unique identity, which differentiates their product from others in the market. They could also diversify into high value products and also develop the market, i.e. influencing the perceptions and attitudes of buyers and consumers to demand more of their products.

Barham and Chitemi, (2009) also identified that groups' effectiveness in marketing depends on the groups' endowment with favourable agro-ecological factors, such as a reliable water source, good lands and soils. Groups lacking these natural assets will find their marketing alternatives severely limited. Penrose-Buckley (2007), also points that finding ways to lower business costs is just as important for POs' ability to compete in the market and that they could reduce cost by scale economies, i.e. bulking their produce and marketing it collectively, lowering internal transaction cost.

2.6.1.6 Relationship with Stakeholders

One of the main reasons for formal cooperation between farmers is to manage the relations between farmers and the wider world so that the mediation of the organisation can (a) provide farmers with better services and terms of exchange in their transactions than would individually and (b) also facilitate transactions and access to services that might not otherwise be available to many farmers. Therefore establishing appropriate relationships between FOs and the wider world is therefore crucial to their success. The external relations of an FO (as well as its internal relations) determine its capacity to act as an autonomous self-sustaining unit (Stockbridge *et al.,* 2003).

Farmer groups should be able to demonstrate interest in inter-group cooperation to solve common problems that affect neighboring groups and be confident that inter-group cooperation will bring them concrete economic and social benefits FAO (2001). According to Markelova *et al.* (2009), some degree of outside assistance, both financial and in capacity building is often required for producer groups to form and operate successfully, but this can introduce problems with sustainability versus dependency of the organizations.

2.7 Perceptions about Cooperatives/Farmer Cooperatives

Nilsson, Ruffio and Gouin (2007), found out after a study in France and Sweden that, many consumers have fairly positive attitudes toward cooperatives, even though at the same time a large number of consumers have little knowledge of cooperatives and their activities. Wachenheim, deHillerin and Dumler (2001), also found that, producers perceived a hog marketing cooperative to have financial benefits for membership and also providing services that are important to them.

A study of farmers' perception of cooperatives in Enugu State, Nigeria found that most farmers in Enugu State did not know about cooperatives, and those that knew cooperatives saw it as government outfits and not autonomous business organizations, since the government used it to pass some assistance to farmers (Agbo, 2009). Penrose-Buckley (2007), points out that in many parts of the world producers are very suspicious of co-operatives because of negative experiences in the past with state-led co-operative-promotion programmes. According to Bernard, Abate and Lemma (2013), Agricultural cooperatives are often perceived as merely the channel through which farmers can access farm inputs and, more rarely, as a means to generate value through collective action.

According to KIT and IIRR (2008), farmer organisations usually receive positive responses from traders in contrast to what most people would likely think of. It is common knowledge that traders may want to sabotage the farmers' organisations to prevent them from succeeding in the market, however it findings show the opposite.

2.8 Factors Influencing Farmers' Participation in Farmers' Cooperatives

Analysis of works done by other researchers on factors that influence farmers' participation in collective actions and cooperatives, revealed that there are two main categories of the factors that influence their decision to participate in such groups. The main categories are (1) those that pertain to the individual farmer and (2) those that pertain to the organised group or cooperative. The paragraphs that follow discusses these factors into details.

2.8.1 Factors That Pertain to the Individual Farmer

An analysis by Fischer and Qaim (2012) of factors influencing the participation of small scale banana growers in farmer groups in Kenya, their results showed that the groups included poor farmers. Nonetheless, possession of land and other agricultural assets as well as access to credit significantly increase the chance of a farmer joining a group. And also that, farmers with greater ability to implement innovations and absorb and exchange information are more likely to engage in collective action. This findings by Fischer and Qaim (2012) is also somehow similar to the findings of Klein, Richard and Walburger (2005) who found out that older farmers tend to utilize more co-operatives, and larger farms do a more of their business with co-operatives than do smaller farms. Farmers who believe co-operatives offer innovative products and services are more likely to patronize them.

Yang and Liu (2012) found that motivation of farmers to participate in farmer economic organization is decided by many factors of which one was farmers' characters. And also that the following can promote farmers' participation in farmer economic organization; improvement of farmers' income and investment of public goods in rural areas. Karli, Bilgic and Celik (2006) also found out that, "education, high communication, income of farmer, farm size, medium and high technology variables are important factors for farmer's entry into agricultural cooperatives. Poorer farmers and those with small land sizes are likely to enter into agricultural cooperatives because of anticipated benefits and risk aversion. However religious factors may also play a role and for that matter conservative or orthodox farmers are less likely to join agricultural cooperatives than moderate farmers are".

Bernard and Spielman (2009) found out in Ethiopia that smaller and larger farmers tend not to participate in the organisation leading to what may be referred to as the middle class effects in participation and that education and land holding seem to be the determinant variable explaining household participation. However the marginal effect of land decreases with the amount of land after a maximum is reached around 4 hectares. A study by Quisumbing, McNiven and Godquin (2008) of household participation in collective groups in the Philippines showed that households with less assets belong to fewer groups, and households with more human and physical capital have larger social networks and are more likely to take part in productive groups.

An analysis by Qiao, Zhao and Klein (2009), of factors influencing a farmer's decision to join a water user association in Inner Mongolia found; "(1) being a village cadre; (2) good state of health; (3) high degree of understanding about water user associations; (4) small proportion of household members in the labour force; (5) cropping income as a high percentage of family income; (6) having had previous conflicts regarding water use issues, to be the most important factors". Khalkheili and Zamani (2009) in a similar study found out that, "farmers' attitudes toward participation in irrigation management, attitudes toward personnel of the State Water Authority and the Agricultural Extension Service Centers (AESCs), family size, problem perception, dependence on the dam for water, and educational background have influenced their participation in irrigation management. However, contact with information sources, animal units, sociability, age and agricultural experience did not affect farmers' participation".

Zheng, Wang and Awokuse (2012), in a study of determinants of producer's participation in agricultural cooperatives found that, educational achievement, risk level, farm expansion, operational costs, geographic location and crop types are significant factors that influence producers' perception of cooperatives and participation behavior. And that high risk, farm expansion, increased sales cost and cash crop positively influence farmers' participation in agricultural cooperatives.

Nugussie (2010), in a study showed that "the major determining factors that influence rural people to join farm cooperatives vary from the household's characteristics to institutional factors. Male household head, member in rural associations, frequent participation in public meetings, serving as member in woreda (tabia) leadership committees, access to credit institution and training, size of family per head, number of family member in secondary school, and availability of information tools (TV, radio) were some factors that strongly and statistically encourage rural people to become a member of agricultural cooperatives. Whilst special skills and education of household head, fragmented farmland, members of the family in primary school, livestock and farmland resources, market access, infrastructure services, and household consumer - worker ratio were not statistically significant to affect rural people's decision to join cooperative societies".

2.8.2 Factors That Pertain to the Organised Group or Cooperative

There are a number of factors that influence farmers' decision to join or not to join cooperatives all over the world. In many developing countries formal producer organisations are connected to political actors and producers are doubtful because of past negative experience. Many producers choose to avoid these formal organisations, (Mangnus and Piters, 2010). Bernard and Spielman (2009) also found out in Ethiopia that, household reluctance to participate in cooperatives could be as a result of the way cooperatives were used by previous regimes to extend strong government control to the local level and encourage socialist ideology through obligatory participation.

Yang and Liu (2012), found that motivation of farmers to participate in farmer economic organization is decided by many factors such as features of farmer economic organisation, policies of organisation development, agricultural investment and so on. And also that the following can promote farmers' participation in farmer economic organisation; measurements of government to promote organisation development and history of organisation. According to Khalkheili and Zamani (2009), based on the farmers' perspectives, unequal water distribution among farms, dissatisfaction with Water Authority operators and high water fees and charges were the main problems and obstacles toward farmer participation in irrigation management.

2.9 Buyers and Suppliers Relationships

According to Jia and Huang (2011), in a study found out that Farmers Professional Cooperatives (FPC) used legally binding contracts and also oral agreements in their trade with farmers. The contracts were used just for only committed and timely marketing and had nothing to do with duration, price, quantity and quality specified. Rajendran, Kamarulzaman, Nawi and Mohamed (2012), however found out from a survey of pineapple growers that, they were engaged in non-contract farming and have established a long-term relationship with their buyers for more than 10 years. Thus Trust, satisfaction, and quality of products were the most important determinants for growers to maintain their long-term relationship their buyers.

Mohanty and Gahan (2012), also identified that buyer supplier relationship was mainly dependent on four main factors and these were; strategic requirements of the organization (choice of partner and for what product or services), supplier performance (cost, quality, delivery and related issues), mode of operation (pricing structure, information exchange levels, technology interchange, business area, Product or process) and personal factors (trust, commitment, loyalty, openness, attitude, flexibility).

3 METHODOLOGY

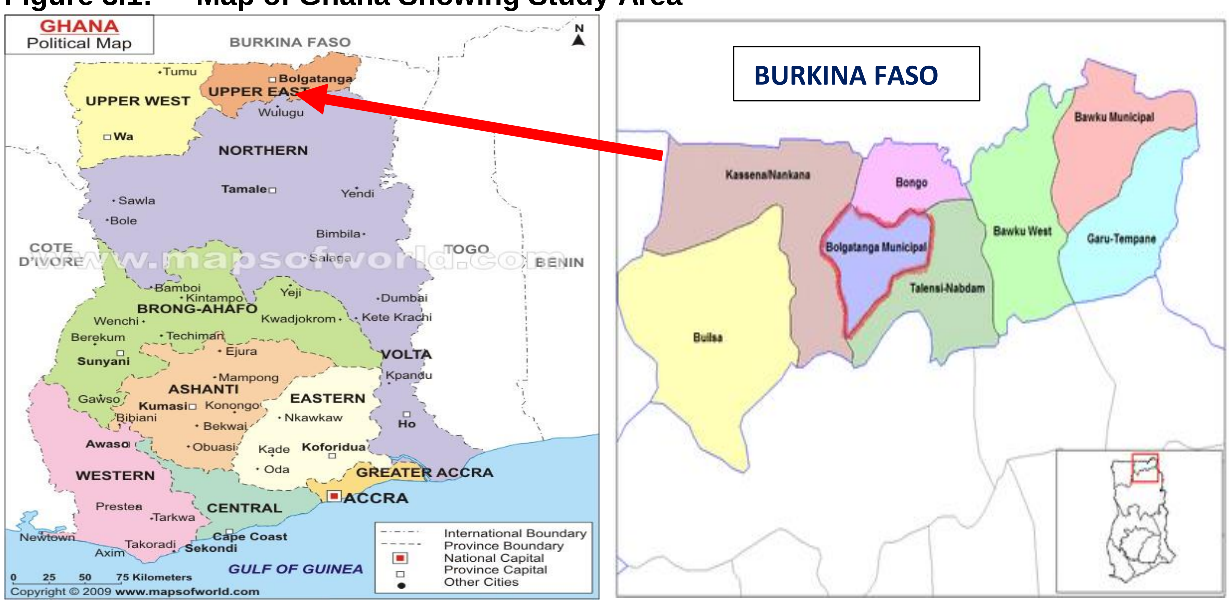
3.1 Study Area

The Upper East Region of Ghana is located in the northeastern corner of the country between longitude 00 and 10 West and latitudes 100 30"N and 110N and bordered by Burkina Faso to the north and Togo to the east the west by Sissala in Upper West and the south by West Mamprusi in Northern Region. The capital is Bolgatanga, sometimes shortened to Bolga. Other cities include Bawku and Navrongo. In area, the Upper East Region is 8842 square kilometers (Government of Ghana, 2013)

The Bolgatanga Municipality is geographically known to lie between latitude 10o 51' and latitude 11o 10' north and 0 and 1.40o west. Bolgatanga Municipality is located in the center of the Upper East Region, and is also the regional capital. It has a total land area of 729 sq. km and is bordered to the North by the Bongo District, South and East by Talensi-Nabdam District and Kassena-Nankana District to the West. It was established by LI 1797 (2004), (Ministry of Food and Agriculture (MOFA), 2013)

The climate is classified as tropical and has two distinct seasons – a wet season that runs from May to October and a long dry season that stretches from October to April; with hardly any rains. Mean annual rainfall is 950mm while maximum temperature is 45°C in March and April with a minimum of 12°C in December. The natural vegetation is that of guinea savannah woodland consisting of short deciduous trees widely spaced and a ground flora, which gets burnt by fire or scorched by the sun during the long dry season. The most common economic trees are the Shea nut, dawadawa, baobab and acacia. The municipality has a forest reserve, which primarily protects most of the water bodies in the area (MOFA, 2013). The Municipality has a total land area of 729 square km and 70% of this (51,030 ha) is cultivated. There are 14,145 agricultural households and with an average of six persons per household and average land holdings of between 1.0 and 3.0 ha. Even though there are few dams and dugouts, the municipality is basically dependent on rain fed agriculture (MOFA, 2013).

Figure 3.1: Map of Ghana Showing Study Area



Source: Mapsofworld.com googlemaps.com

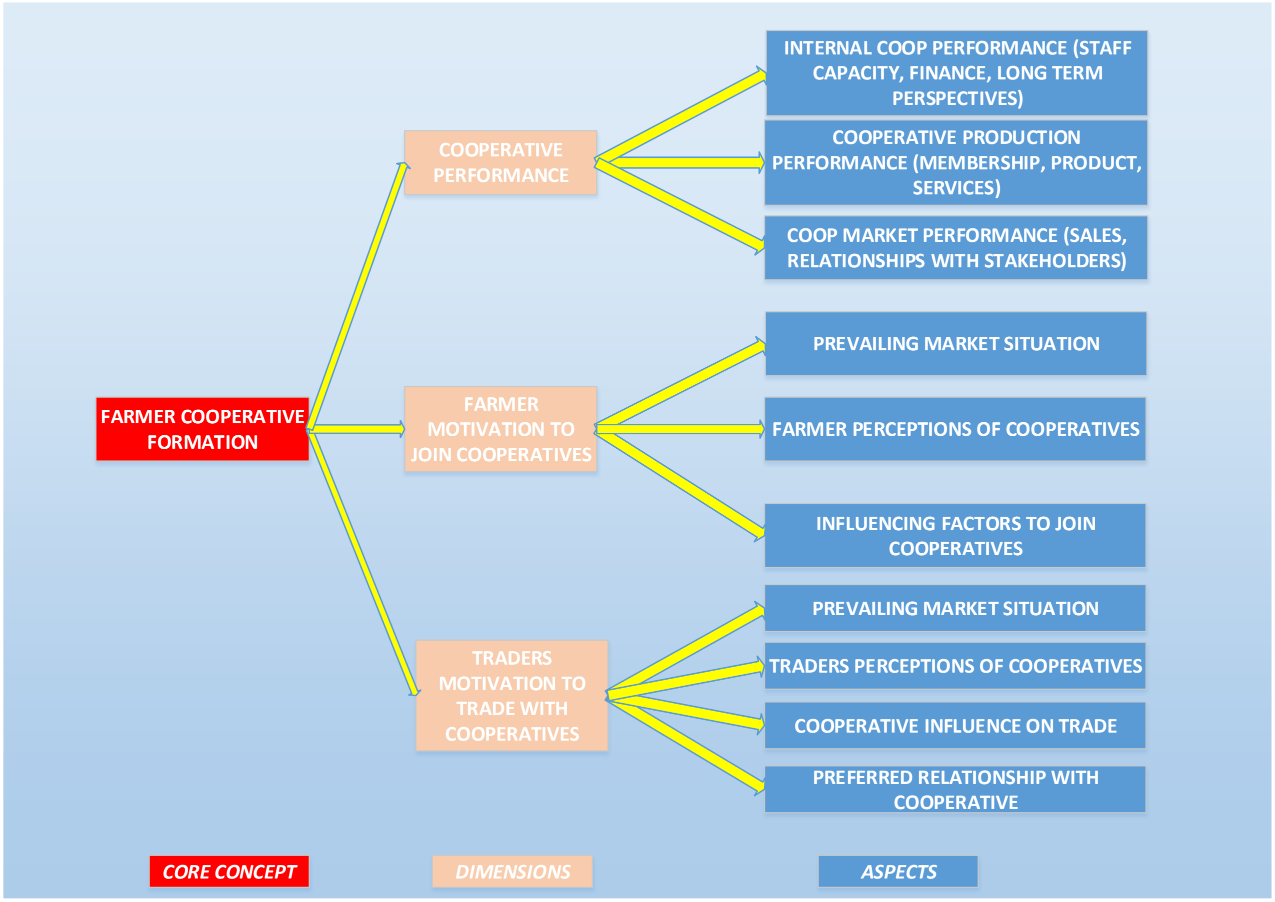
3.2 Research Design and Strategies

The research employed the following strategies in order to come out with the findings; Desk study to find relevant information related to the research ever done, Interviews with management and some members of the three cooperatives to assess their performances, and also the GNTTTA. A survey of twenty farmers operating individually in the Bolgatanga Municipality was also under taken.

Table 3.1: Table of Research Design

Research Question	Sub Questions	Key Words	Source of Information	Research Strategy
1	1.1	Cooperatives Internal organisation (staff capacity, financial management, vision and mission)	• Articles in Journals • Cooperatives Management and documents	• Desk Study • Interviews
1	1.2	Market performance (sales and relationships) of Cooperatives	• Articles in Journals • Cooperatives Management	• Desk Study • Interviews
1	1.3	Production (membership, product and services) performance of Cooperatives	• Articles in Journals, Books • Cooperatives Management	• Desk Study • Interviews
1	1.4	Members perceived Performance of Cooperatives	• Articles in Journals, Books • Cooperatives members	• Desk Study • interviews
2	2.1	Farmers tomatoes marketing,	• Articles, Journals • Non-member Farmers	• Desk Study • Survey
2	2.2	Farmers, perception of Cooperatives	• Articles, Journals, Books • Non-member Farmers	• Desk Study • Survey
2	2.3	Participation of farmers in Cooperatives	• Articles, Journals, Books • Non-member Farmers	• Desk Study • Survey
3	3.1	Market Queens Tomatoes marketing	• Articles and Journals • Market Queens	• Desk Study • Interview
3	3.2	Market Queens, perception of Coops.	• Articles • Market Queens	• Desk Study • Interview
3	3.3	Coops, Influences on Traders	• Articles and Journals • Market Queens	• Desk Study • Interview
3	3.4	Relationships, Contracts, Trust,	• Articles and Journals • Market Queens	• Desk Study • Interview

Figure 3.2: Conceptual Framework



Source: Author's Construct (2013)

3.2.1 Desk Study

A desk study was under taken to find relevant information on the research subject matter. Sources of data for the desk study were articles in Journals, books and reports.

3.2.2 Interviews

Interviews were carried out with management and five randomly selected members each of the three existing Tomato Farmers' cooperatives in the Nyariga and Vea communities of the Bolgatanga Municipality. The executives of the cooperatives were interviewed to understand the Internal Organisational, the Market and Production Performances of the cooperatives. A checklist extracted from the MIDCA Tool was used to guide the discussions with the executives of each cooperative. The five members each from the cooperatives were randomly selected for them to assess the performance of their cooperatives as perceived by them. They assessed their cooperatives based on statements in the following areas of cooperatives; Membership Base; Governance, Leadership and Internal Democracy; Service Provision to members; Farm Management and Tomatoes Production; Stakeholder Collaboration; Management of Financial Resources; Collaborations and Networks; Entrepreneurial Skills; and Costs and Marketing. The questionnaire used here was adapted from Modderman, (2010).

An interview was also done with the Spokesperson of the Ghana National Tomato Traders and Transporters Association (GNTTTA). It was initially supposed to be a survey where individual market queens would be interviewed, however it was changed due to the policy of the GNTTTA that, market queens allow their elected leaders speak to researchers and government official on their behalf. The interview enabled the researcher to obtain information on their marketing situation, perceptions about farmers' cooperatives and the influence farmers' cooperative can have on their trade in the Bolgatanga Municipality.

3.2.3 Surveys

The sampling method employed here in this research for the survey was simple random sampling. The farmers were randomly selected from the major tomatoes production sites in the Bolgatanga Municipality based on their numbers per production site in MOFA's Municipal database. Twenty farmers were randomly sampled from the production sites (i.e. Nyariga, Sumbrungu Zobgo, Sumbrungu Kulbia, Gambibgo, Akulpeligo, Zuarungu-Kumbosgo and Soe. The survey was to obtain information from the farmers about their perceptions of cooperatives and their likelihood of joining a farmers' cooperative in the municipality.

3.3 Data Analysis

The research was both qualitative and quantitative, and where necessary analysis of data was presented with tables and charts.

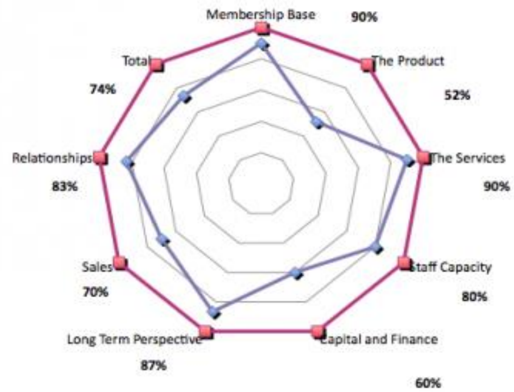
3.3.1 Interviews with Cooperatives Management and Members

Cooperatives Performance

To assess the performances of the three cooperatives, The MIDCA model was used for the analysis. This tool helps to point out the areas in the cooperative that are strong or weak and requiring improvement or building on. The tool divides the cooperative into the following categories and sub categories respectively for analysis; **Production** (Membership Base, The Product, and The Services), **Internal Organisation** (Staff Capacity, Financial Management, Long Term Perspective) and **Market** (Sales and Relationships with stakeholders). The score of each sub category in a category tells the performance of the organization with respect to the category and sub category. They serve as performance indicators for cooperatives to score which parts of the organisation are performing well and where the gaps are. Each sub category has a number of questions to be answered, with a maximum score of 5 for each question satisfactorily answered. The total scores of the questions under the sub category are summed up to reflect its performance. Details of the scoring can be found in appendix 4. The figure below is an example of the outcome of the MIDCA Tool.

Figure 3.3: MIDCA Model Tool

Category	Sub Category	Max	Score	%
Production	Membership Base	15	15	100%
	The Product	30	30	100%
	The Services	15	10	67%
Internal Organization	Staff Capacity	25	25	100%
	Financial Management	35	35	100%
	Long Term Perspective	15	15	100%
Market	Sales	25	25	100%
	Relationships	25	23	92%
	Total	185	178	96%



Cooperatives Performance Assessment by Members
Data analysis and interpretation of the members' performance assessment of the cooperatives was adapted from Modderman (2010) and Bakengesa (2011). The areas of assessment were categorised into: Membership Base; Governance, Leadership and Internal Democracy; Management of Financial Resources; Collaboration and Networks; Service Provision; Farm Management and Tomatoes Production; Stakeholder Collaboration; Entrepreneurial skills; and Costs and Marketing. Each category has statements to which members of the cooperatives have to indicate their agreement or disagreement with the statement on a four point Likert type scale.

On the four point Likert-type rating scale, selecting the following means: (1) I totally disagree with the statement, (2) I disagree with the statement, (3) I agree with the statement and (4) I totally disagree with the statement.

The four point scale was used to reduce the tendencies for members to stay neutral in their agreement or disagreement with the statements, (Saunders *et al.* 2007).

For each statement in a category, the scores of the five members were arranged and the mean found. The total means for all the statements in a category were summed up to find the final mean. The final means of the various categories were then used for the interpretation of the results on a graph. The median which is use in most cases was not used because the tendency was for the median to always be a whole number because of the sample size (5). Therefore the mean was used for easier interpretation of the results which involves decimals.

Results Interpretation of Members Assessment
As discussed above the following are the indications of how the results were interpreted.

A. **Less than 50% or a score lower than 2**: a very low score, caused by the disagreement of the respondents with the statements. Meaning that the aspect of the cooperatives performance was unsatisfactory and there is an urge for improvement or change.

B. **<u>Between 50% and 62.5% (between score 2 and 2.5)</u>**: a low score, dissatisfaction of the respondents is present; therefore improvement is necessary to meet the needs and wishes of the respondents.
C. **<u>Between 65% and 75% (between score 2.6 and 3)</u>**: a positive score. The satisfaction of respondents is not optimal. Improvement of the cooperatives performance is not obligatory, but advisable in order to increase satisfaction among members.
D. **<u>Between 77.5% and 87.5% (between 3.1 and 3.5)</u>**: the respondents are satisfied with the cooperative's performance. Adjustments could be made to lift the level of satisfaction to the final stage.
E. **<u>90% or more (3.6 or more)</u>**: A very high score, the average respondent fully agrees with the statement and indicates a high level of satisfaction. Change or improvement is not needed.

Interview with Ghana National Tomato Traders and Transporters Association
Thematic Content Analysis was employed to analyze the marketing situation of market queens, their perceptions of cooperatives and the influence farmers' cooperative can have on their trade in the Bolgatanga municipality.

3.3.2 Surveys

Thematic content analysis was also employed to analyze the perceptions of tomato famers about cooperatives and the motivations of tomato farmers to or not to joining tomato farmers' cooperative/s in the municipality. The findings from the farmers' survey were presented and discussed further.

3.4 Limitations of the Research

The use of the Likert type scale may have influenced some members of the cooperatives in two ways. To stay positive when in reality it is otherwise, in their assessment of their cooperatives so that outsiders do not get to know the reality for social reasons (prestige and also not wanting people to say they are a failure). The second is for members of the cooperatives to stay negative so as to get support from outsiders.

The sample size of (20) nonmember farmers for the survey, may have left out farmers with vital information that could have changed the research findings and direction.

The researcher in the assessment of the cooperatives using the MIDCA Tool at times used his discretion to allocate a score for certain questions based on the responses from the interviewees.

4 RESULTS

4.1 Basic Information of Cooperatives

4.1.1 Tomato Producers Association of Nyariga Cooperative Society (TOPAN)

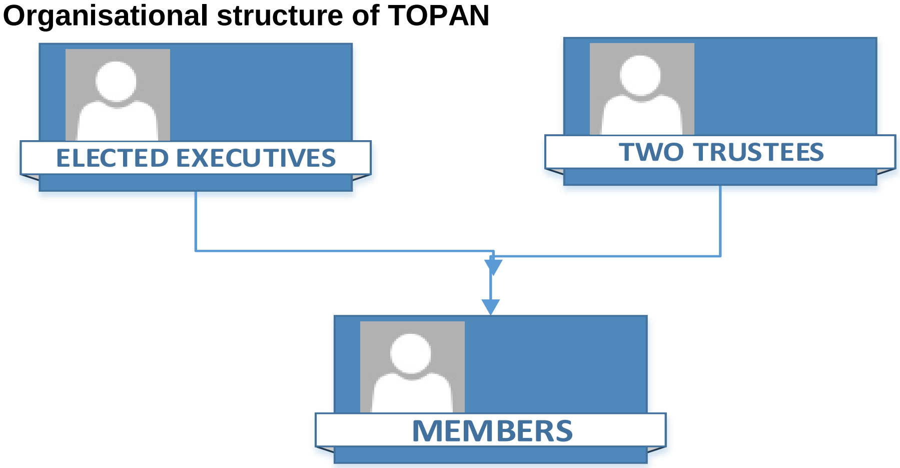
This cooperative was formed in the year 2000 in the Nyariga community. It was formed as a result of the lack of buyers for tomatoes after production in the community. The cooperative was supposed to find markets for the members, process the excess volumes into paste, access extension support for members and also to advocate for policy changes in agriculture affecting farmers.

An extension officer from the ministry of food and agriculture initiated the formation of the group which was later registered as a cooperative with the department of cooperatives. The group started with a membership of 25 members (males=12, females=13) and has maintained the same number of membership up to date. This was due to the fact that management did not want the membership to increase beyond their control. However, membership increment resulted in the initiation or formation of other cooperatives in the community. The following were the objectives of the cooperative:

1. To promote the economic interest of the members and to ensure united actions of all issues affecting or likely to affect those issues.
2. To unite members and to promote unity within the society.
3. To help promote agricultural activities and other income generating activities within the community
4. To network or corporate with other organisations with similar objectives in the achievement of the above objectives.
5. To create employment for the society members and the youth in the community in general.
6. To access entrepreneurial skills and knowledge for the development of the society.

The cooperative in partnership with this NGO, Trade Aid are operating a rice milling plant where the cooperative earns commission on the operations. The figure below is the organisational structure of the cooperative.

Figure 4.1: Organisational structure of TOPAN



Source: Author's Construct (2013)

4.1.2 Bongo Nyariga Amanzele Cooperative Farmers Society (BONACOFSO)

This cooperative was formed in the year 2005 and registered in 2007 with the department of cooperatives, Ghana. The cooperative was formed because individual farmers could not access support from any agency for their tomato farming activities. This therefore resulted in the formation of the cooperative which was initiated by the farmers themselves in the community after the successful formation of TOPAN.

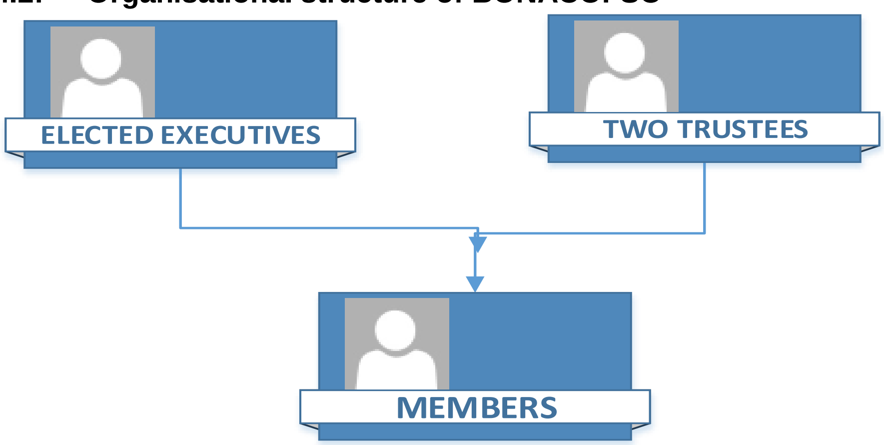
The group started with 22 members (males=19, females=3), two died and membership later increased to 29 members (males=20, females=9) as at now.

The following are the objectives of the cooperative as written in their constitution.

1. To promote the economic interest of the members and to ensure united actions of all issues affecting or likely to affect those issues.
2. To unite members and to promote unity within the society.
3. To help promote agricultural activities and other income generating activities within the community
4. To network or corporate with other organizations with similar objectives in the achievement of the above objectives.
5. To create employment for the society members and the youth in the community in general.
6. To access entrepreneurial skills and knowledge for the development of the society.

The figure below is the organizational structure of the cooperative.

Figure 4.2: Organisational structure of BONACOFSO



Source: Author's Construct (2013)

4.1.3 Atolenenga Cooperative Farmers Society (ATOCOFSO)

This cooperative in the Nyariga community was formed and registered in the year 2005 with the department of cooperatives. The cooperative was formed to facilitate members to access credit from financial institutions for tomato production, and to collectively bargain and sell their produce. The cooperative was initiated when the department of cooperatives organised a sensitisation programme in the community for farmers on the need to have cooperatives to access support from government.

The group started with a membership of 25 people and currently has a membership of 17 people (males=12, females=5). Like in the other cooperatives, the following were the main aim and objectives respectively as stated in their constitution:

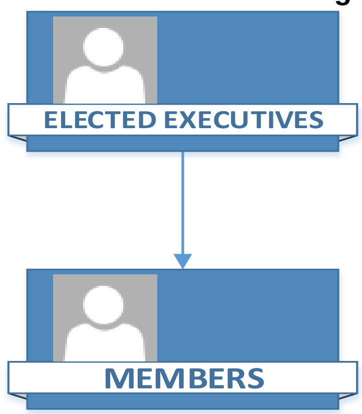
Main Aim: To produce tomatoes for sale thereby reducing poverty among members.

Objectives:

1. To source for market opportunities for its members
2. To mobilize and sensitize farmers on the need to process agricultural produce
3. To source for funding for members and for the development of the Nyariga community
4. To promote the economic interest of all members and to ensure united actions of all issues affecting or likely to affect those interest
5. To unite members and to promote unity within the society
6. To create employment for the society members and the youth in the community in general

The figure below is also the organizational structure of the cooperative.

Figure 4.3: Organisational structure Atolenenga Cooperative

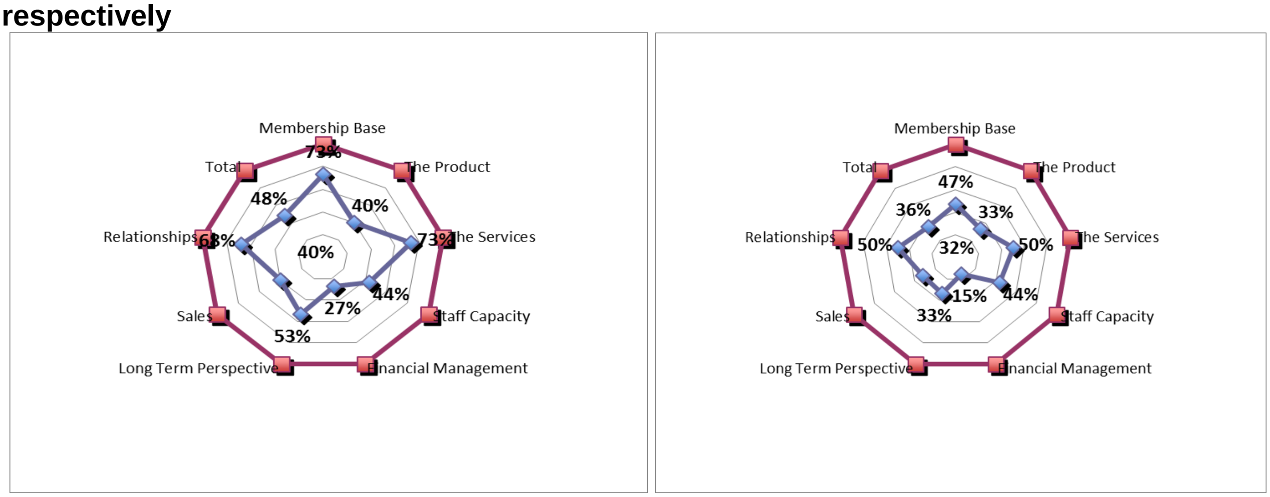


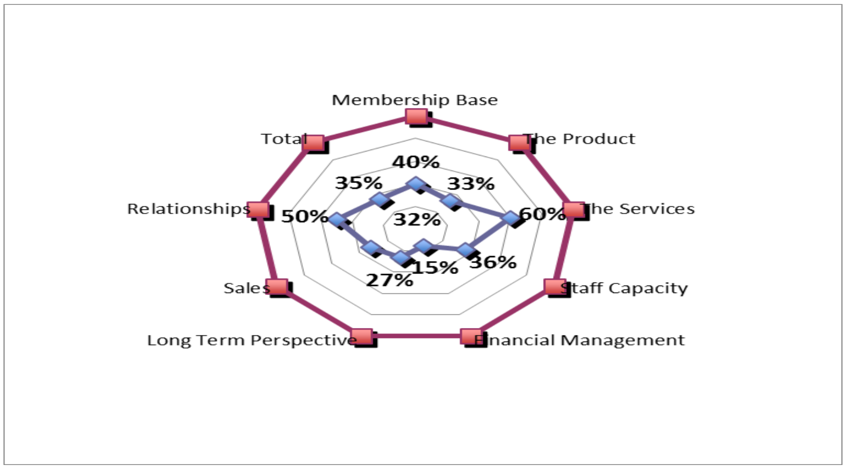
Source: Author's Construct (2013)

4.2 Performance of the Existing Cooperatives

The MIDCA Tool, as used in the research shows the performance of the cooperatives in the three categories; Internal Organisational, Production and Market. The total performance of the cooperatives are presented simultaneously below. The figures below are the total performance of each Cooperative respectively.

Figure 4.4: Total Performance of TOPAN, BONACOFSO and Atolenenga Cooperatives respectively





Source: Author's Construct (2013)

This shows that on the whole the cooperatives are not performing well as they all had a total performance score below 50%. Details are discussed below in the subsequent paragraphs.

4.2.1 Internal Organizational Performance of the Cooperatives

The internal organisational performance of the cooperatives is divided into Staff Capacity, Financial Management, and Long Term Perspective.

4.2.1.1 Tomato Producers Association of Nyariga Cooperative Society (TOPAN)

- **Staff Capacity:** The cooperative had five elected executives (Chairperson, Vice chairperson, secretary, treasurer and organizer), and two trustees, all cooperative members. The executives have ever received trainings on their roles and responsibilities by two NGOs called Trade Aid and BUSAC in the Bolgatanga Municipality. The cooperative has no technical staff. They have quite a simple organisational structure, the elected executives and the trustees then follows the members, no board of directors. Meetings are held once in almost every month, rules and regulations governing the cooperatives written in the constitution of the cooperative. Details of the scores on staff capacity can be found in appendix 5.
- **Financial Management:** The percentage of financial needs covered by the cooperative was found to be 7.5%. It has an estimated annual income of GH¢750.00 from monthly contributions of members with an estimated seasonal production budget of GH¢10,000 for tomatoes production (NB: Budget estimated by researcher for, if the cooperative were to support each member to produce one acre of tomatoes with average production cost of GH¢400.00). The cooperative has ever had access to local financial resources but not anymore. Financial records though available are not audited. A monthly income of GH¢62.50 is not significant to undertake any key activity in the cooperative. The cooperative has only one organ, the elected executives and there are no annual operational budgets. Budgets for key activities are only estimated when the time comes for such activities. Details of the scores on financial management can be found in appendix 5.
- **Long Term Perspective:** It has a written declaration of its objectives in its constitution. The cooperative however has no long term strategic plan to make the cooperative competitive.

The executives could only express strategies verbally with the excuse that, an NGO is assisting them to organize their long term strategic plan. Financially there is no such strategies to be financial self-sufficient, except to depend on member contributions and commission from rice processing mill. Details of the scores on long term perspective can be found in appendix 5

Table 4.1: Internal organisational performance of TOPAN

Category	Sub-Category	Max	Score	%
Internal Organisation	Staff Capacity	**25**	**11**	**44%**
	Financial Management	**35**	**9.4**	**27%**
	Long Term Perspective	**15**	**8**	**53%**
Total		**75**	**28.4**	**38%**

Source: Author's Construct (2013)

4.1.2.2 Bongo Nyariga Amanzele Cooperative Farmers Society (BONACOFSO)

- **Staff Capacity:** The cooperative has five elected executives (management) (Chairperson, Vice chairperson, secretary, treasurer and organizer) and two trustees all members of the cooperative. The executives have had trainings on their responsibilities and roles by Trade Aid an NGO in the Bolgatanga Municipality. The Cooperative has no technical staff and organisational structure quite simple, the elected executives with the trustees then follows the members, no board of directors. Meetings are held once in almost every month, and rules and regulations governing the cooperatives written in the constitution of the cooperative. Details of the scores on staff capacity can be found in appendix 6.
- **Financial Management:** The percentage of financial needs covered by the cooperative was also found to be 7.5%. It has an estimated annual income of GH¢600.00 from monthly contributions of members, with an estimated seasonal production budget of GH¢8,000 for tomatoes production (NB: Budget estimated by researcher for, if the cooperative were to support each member to produce one acre of tomatoes with average production cost of GH¢400.00). The cooperative has never had access to local financial resources but has a bank accounts with Stanbic Bank Ghana, Bolga Branch. Financial records of last two years though available, are not official and also not audited. A monthly income of GH¢50.00 is not significant to undertake any key activity in the cooperative. The cooperative has only one organ, the executives and there are no annual operational budgets. Budgets for key activities are only estimated when the time comes for such activities. Details of the scores on financial management can be found in appendix 6.
- **Long Term Perspective:** It has a written declaration of its objectives in its constitution. The cooperative however has no long term strategic plans with regards to how to make the cooperative competitive. The executives could not however express such strategies verbally satisfactorily. Financially there is no such strategies to be financially self-sufficient except to depend on member contributions and any donations that may come from any source. Details of the scores on long term perspective can be found in appendix 6

Table 4.2: Internal organisational performance of BONACOFSO

Category	Sub Category	Max	Score	%
Internal Organisation	Staff Capacity	**25**	**11**	**44%**
	Financial Management	**35**	**5.4**	**15%**
	Long Term Perspective	**15**	**5**	**33%**
Total		**75**	**21.4**	**29%**

Source: Author's Construct (2013)

4.1.2.3 Atolenenga Cooperative Farmers Society (ATOCOFSO)

- **Staff Capacity:** The cooperative has four elected executives (Chairperson, Secretary, Treasurer and Organiser), who are all members of the cooperative, no board of directors. The executives have ever been trained on their responsibilities and roles by Trade Aid an NGO. The cooperative has no technical staff. Their organisational structure is quite simple, the elected executives the followed by the members, no trustees and board of directors. Meetings are held once in almost every month and rules and regulations governing the cooperatives all written in the constitution of the cooperative. Details of the scores on staff capacity can be found in appendix 7.
- **Financial Management:** The percentage of financial needs covered by the cooperative was found to be coincidentally 7.5%, the same as the previous two cooperatives. It has an estimated annual income of GH¢510.00 from monthly contributions of members, an estimated seasonal production budget of GH¢6,800.00 for tomatoes production (NB: Budget estimated by researcher for, if the cooperative were to support each member to produce one acre of tomatoes with average production cost of GH¢400.00). The cooperative has never had access to local financial resources, but has a bank accounts with Naara Rural Bank Limited. Financial records of last two years though available, are not official and also not audited. A monthly income of GH¢50.00 is not significant to undertake any key activity in the cooperative. The cooperative has only one organ, the executives and there are no annual operational budgets. Budgets for key activities are only estimated when the time comes for such activities. Details of the scores on financial management can be found in appendix 7.
- **Long Term Perspective:** It has a written declaration of its main aim and objectives in its constitution. The cooperative has no long term strategic plan to make the cooperative competitive. The cooperative has no have strategic plans to be financially self-sufficient except to depend on member contributions and any donations that may come from any source. Details of the scores on long term perspective can be found in appendix 7.

Table 4.3: Internal organisational performance of Atolenenga Cooperative

Category	Sub Category	Max	Score	%
Internal Organisation	Staff Capacity	**25**	**9**	**36%**
	Financial Management	**35**	**5.4**	**15%**
	Long Term Perspective	**15**	**4**	**27%**
Total		**75**	**18.8**	**25%**

Source: Author's Construct (2013)

4.2.2 Cooperatives Market Performance

The market performance of the cooperatives are divided into; Sales and Relationships with Stakeholders.

4.2.2.1 Tomato Producers Association of Nyariga Cooperative Society (TOPAN)

- **Sales:** The cooperative is not into the sale of members produce, but the executives sometimes ensure that members get to sell their produce to the traders. This sometimes prolongs the period between harvest and sale. The Cooperative operates a rice processing mill which belongs to Trade Aid an NGO. The cooperative has not diversified into different tomato products. The cooperative also has not diversified its client portfolios on behalf of its members. Details of the scores on Sales can be found in appendix 5.
- **Relationship with Stakeholders:** The cooperative relates with its members in good terms. It has also established some form of relationship with some NGOs like Trade Aid and BUSAC,

and the community of Nyariga where they are based. It has a relationship with only the Agricultural Development Bank enabling it to acquire a loan facility two years ago. Relationships with their major client, the market queens is quite casual with no long term agenda. Details of the scores on Relationship with Stakeholders can be found in appendix 5.

Table 4.4: Market performance of TOPAN

Category	Sub category	Max	Score	%
Market	Sales	**25**	**10**	**40%**
	Relationships	**25**	**17**	**68%**
		50	**27**	**54%**

Source: Author's Construct (2013)

4.2.2.2 Bongo Nyariga Amanzele Cooperative Farmers Society (BONACOFSO)

- **Sales:** The cooperative does not organise the sale of members produce. But the elected executives sometimes ensure that members get to sell to traders that come to buy. This sometimes prolongs time from harvest to final sale. The Cooperative as a unit has not diversified into any other product, but members are involved in the production of rice individually. It has not also diversified into other tomato products too. The cooperative again has not diversified its client portfolios on behalf of its members. Details of the scores on Sales can be found in appendix 6.
- **Relationship with Stakeholders:** The cooperative relates well with its members and the community. It has a rather weak relationship with supporting NGOs like Trade Aid and BUSAC, its main clients, the market queens and also financial institutions. Details of the scores on Relationship with Stakeholders can be found in appendix 6.

Table 4.5: Market performance of BONACOFSO

Category	Sub category	Max	Score	%
Market	Sales	**25**	**8**	**32%**
	Relationships	**25**	**12.5**	**50%**
Total		**50**	**20.5**	**41%**

Source: Author's Construct (2013)

4.2.2.3 Atolenenga Cooperative Farmers Society Limited (ATOCOFSO)

- **Sales:** The cooperative is not into the sale of members produce. The executives sometimes ensure that members get to sell their produce to the traders who come to buy. This sometimes prolongs the time from harvest to final sale of the tomatoes. The Cooperative as a unit has not diversified into any other product, but members are involved in the production of rice individually. It has not also diversified into other tomato products too. The cooperative again has not diversified its client portfolios on behalf of its members. Details of the scores on Sales can be found in appendix 7.
- **Relationship with Stakeholders:** The cooperative has a good relationship with its members and the community, however has a weak relationship with supporting NGOs like Trade Aid and BUSAC, clients and financial institutions. Details of the scores on Relationship with Stakeholders can be found in appendix 7.

Table 4.6: Market performance of Atolenenga Cooperative

Category	Sub category	Max	Score	%
Market	Sales	**25**	**8**	**32%**
	Relationships	**25**	**12.5**	**50%**
Total		**50**	**20.5**	**41%**

Source: Author's Construct (2013)

4.2.3 Cooperatives Production Performances

The Production Performances of the cooperatives are divided into these sub categories; Membership base, The Product and Services.

4.2.3.1 Tomato Producers Association of Nyariga Cooperative Society (TOPAN)

- **Membership Base:** It has a total membership of 25 people from the start of the cooperative and has maintained same number. According to the executives all the members are active and taking part in every activity of the cooperative. Members miss out on meetings and activities when they have to attend to other matters outside the community. No particular actions have been taken to increase membership because management think when the numbers grow, there may be problems with the control of members. Details of the scores on membership base can be found in appendix 5.
- **The Product:** Tomatoes Productivity of the members of the cooperative has remained the same except for seasons where they are affected by nematodes reducing yields. The cooperative does not do the marketing, but prices received by members for their produce from buyers most of the time in the early part of the season is high and reduces when supply has increased a few weeks later. Most members of the cooperative grow the same variety of tomatoes. The cooperative is not under any food quality and safety certification. Environmental issues as a result of their operations are known by the cooperative, but have no written plans for the implementation to reduce effects. Details of the scores on the product can be found in appendix 5.
- **Services:** The cooperative has helped members to access fertilizers from the government fertilizer subsidy programme, trainings from extension officials and some NGOs and tractors to plough members' fields. Access to these services were open to all members, however members still wanted more services to be provided by the cooperative like provision of credit and the sale or facilitation to sell members produce. Details of the scores on Services can be found in appendix 5.

Table 4.7: Production performance of TOPAN

Category	Sub category	Max	Score	%
Production	Membership Base	**15**	**11**	**73%**
	The Product	**30**	**12**	**40%**
	The Services	**15**	**11**	**73%**
Total		**60**	**34**	**57%**

Source: Author's Construct (2013)

4.2.3.2 Bongo Nyariga Amanzele Cooperative Farmers Society (BONACOFSO)

- **Membership Base:** It had a total membership of 22 people initially and has increased to 29 currently. About 20 members are active in the cooperative and only miss out in cooperative activities when they have to attend to other issues or have travelled out of the community. No particular strategic actions have been taken to increase membership though membership is open to all people willing to abide by the rules and regulations and financial commitments of the cooperative. Details of the scores on membership base can be found in appendix 6.
- **The Product:** Tomatoes Productivity of the members of the cooperative has remained the same except for seasons where they are affected by nematodes reducing yields. The cooperative is not into marketing of produce, but prices received by members for their produce from buyers most of the time in the early part of the season is high and reduces when supply has increased a few weeks later. Most members of the cooperative grow the same variety of tomatoes. The cooperative is not under and kind of quality management certification. Cooperative have been sensitized on the impact of their operation on the environment but have no written plans to reduce effects on the environment. Details of the scores on The Product can be found in appendix 6.
- **Services:** The cooperative has helped members to sometimes access trainings from the extension officers and some NGOs. It sometimes arranges for tractors services for members. Access to these services is open to all members, however members want more services from the cooperative. Details of the scores on Services can be found in appendix 6.

Table 4.8: Production performance of BONACOFSO

Category	Sub category	Max	Score	%
Production	Membership Base	**15**	**7**	**47%**
	The Product	**30**	**10**	**33%**
	The Services	**15**	**8**	**50%**
Total		**60**	**25**	**42%**

Source: Author's Construct (2013)

4.2.3.3 Atolenenga Cooperative Farmers Society Limited (ATOCOFSO)

- **Membership Base:** The cooperative had a total membership of 25 people initially and has reduced to 17 people currently. All 17 members are active and a member only miss out on cooperative's activities when travelled out of the community to attend to personal matters or taken ill. No particular strategic actions have been taken to increase membership base, however membership is open to all people willing to abide by the rules and regulations and financial commitments of the cooperative. Details of the scores on membership base can be found in appendix 7.
- **The Product:** Tomatoes Productivity of the members of the cooperative has remained the same. The cooperative does not market members' produce, but prices received by members for their produce from buyers most of the time in the early part of the season is high and reduces when supply has increased a few weeks later. Usually most members of the cooperative grow the same variety of tomatoes. The cooperative is not also under any certification for food quality and safety management. The cooperative is aware of environmental issues but has no written plan for implementation to reduce effects on the environment. Details of the scores on The Product can be found in appendix 7.
- **Services:** The cooperative has helped members to access trainings from the extension officers and some NGOs and also at times arranges for tractors services for members. Access

to these services is open to all members. However members want more services from the cooperative. Details of the scores on Services can be found in appendix 7.

Table 4.9: Production performance of Atolenenga Cooperative

Category	Sub category	Max	Score	%
Production	Membership Base	**15**	**6**	**40%**
	The Product	**30**	**10**	**33%**
	The Services	**15**	**9**	**60%**
		60	**25**	**42%**

Source: Author's Construct (2013)

4.2.4 Members' Cooperatives Performance Assessment

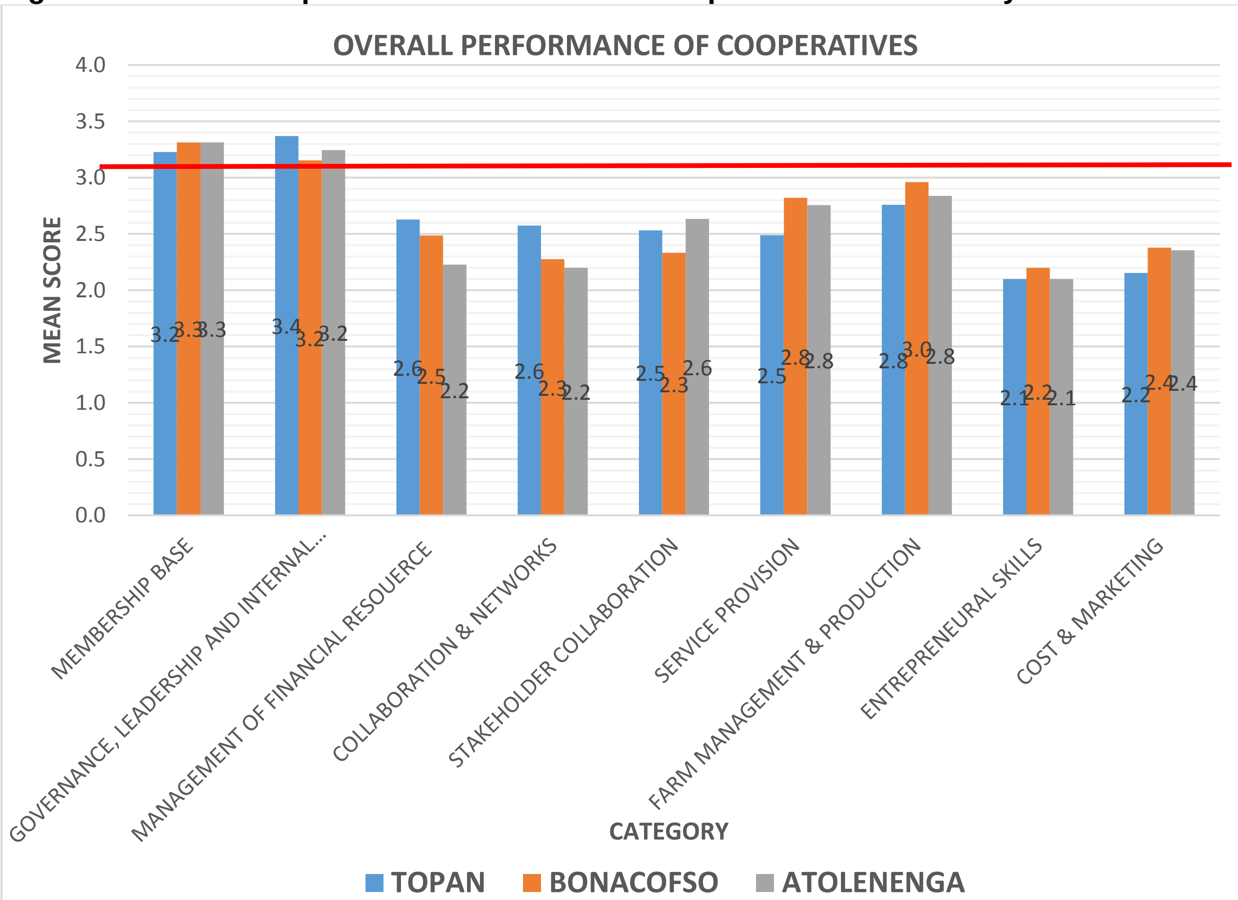
Five members each from the three cooperatives assessed the performance of their cooperatives on a scale of 1 – 4 (1 = strongly disagree, 4 = strongly agree) and the overall performance of the cooperatives are presented in the table and figure below.

Table 4.10: Mean scores of the cooperatives per category

CATEGORY	MEAN SCORES OF CATEGORIES		
	TOPAN	BONACOFSO	ATOLENENGA
Membership Base	3.23	3.31	3.31
Governance, Leadership and Internal Democracy	3.37	3.15	3.25
Management of Financial Resources	2.63	2.49	2.23
Collaboration and Networks	2.58	2.28	2.20
Stakeholder Collaborations	2.53	2.33	2.63
Service Provision	2.49	2.82	2.76
Farm Management and Tomatoes Production	2.76	2.96	2.84
Entrepreneurial Skills	2.10	2.20	2.10
Cost and Marketing	2.16	2.38	2.36

Source: Author's Construct (2013)

Figure 4.5: Overall performance of the three cooperatives assessed by members



Source: Author's Construct (2013)

The results indicate that, in all the three cooperatives besides membership base and Governance, Leadership and Internal Democracy, the other assessment areas members' were not adequately satisfied with performance. In terms of management of financial resources, only TOPAN had a positive score which though not an adequate satisfaction, improvements are not obligatory, meanwhile the other two cooperatives had a low score needing agent attention. In the area of Collaborations and Networks all three had a low score needing attention for improvements. Atolenenga Cooperative had a positive score though not adequate and the rest of the two had low scores in Stakeholder Collaborations. In terms of Service Provision only TOPAN had a low score but the other two had positive scores though not adequate. All the three had a positive score though not adequate in Farm Management and Tomatoes Production. Whiles all three cooperatives had very low scores on Entrepreneurial Skills and Cost and Marketing.

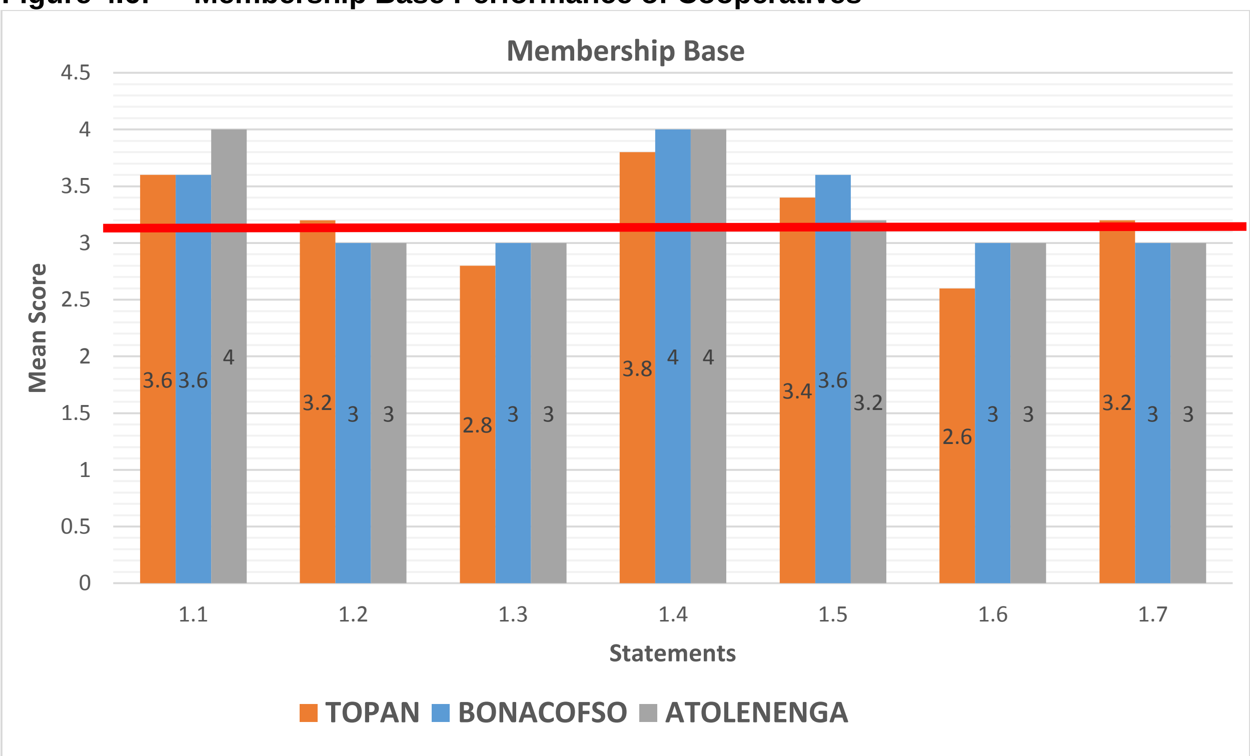
4.2.4.1 Membership Base

The members assessed the cooperatives' performances under membership based on the following statements on a scale of 1 – 4 in the table below.

Table 4.11: Statements under Membership Base

NO	STATEMENT
1	**Membership Base**
1.1	The conditions for adhering to our farmers' cooperative are clearly defined
1.2	I am totally aware of the objectives and the planning of our farmers' cooperative
1.3	The objectives of the cooperative are shared with most members
1.4	Membership is open to all farmers
1.5	I know that we have a member register that is up-to-date
1.6	Most members regularly pay their membership fees
1.7	Most members actively participate in the activities of our farmers' cooperative

Figure 4.6: Membership Base Performance of Cooperatives



Source: Author's Construct (2013)

- The results indicate that the self-assessment of TOPAN by the members was adequate satisfaction for most of the statements with the exception of statements 1.3 and 1.6 which had a positive score, though not adequate, improvement is not obligatory but may be needed to improve the cooperative's performance.
- Members of BONACOSFO were not adequately satisfied with most of the statements because of a positive score. Though the scores are not adequate, improvements are not obligatory but

are needed for cooperative's improvement. However, members were adequately satisfied with statements 1.1, 1.4 and 1.5.

- Members of Atolenenga just like BONACOFSO were not adequately satisfied with most of the statements because of a positive score. Though the scores are not adequate, improvements are not obligatory, but are needed for cooperative's improvement. However, members were fully and adequately satisfied with statements 1.1, 1.4 and 1.5 respectively.

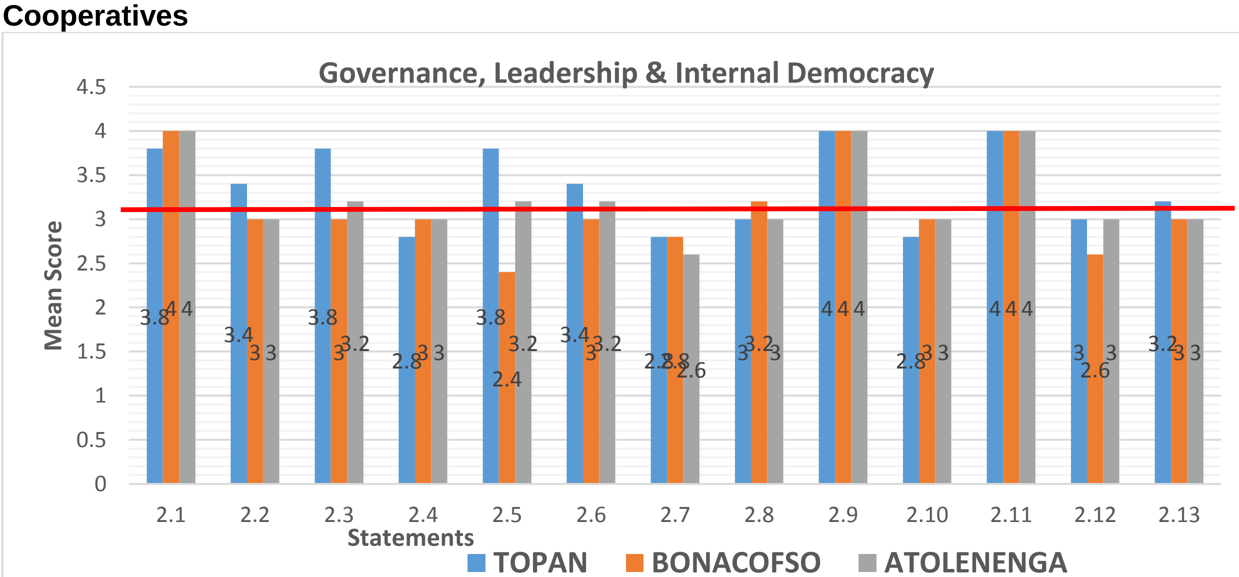
4.2.4.2 Governance, Leadership and Internal Democracy

Members of the cooperatives did the assessment on the following statements on a scale of 1 – 4 in the table below.

Table 4.12: Statements under Governance, Leadership and Internal Democracy

2	**Governance, Leadership and Internal Democracy**
2.1	The internal regulations of our farmers' cooperative are documented
2.2	The internal regulations of our farmers' cooperatives are made known to all members
2.3	The governing board of our farmers cooperatives has been democratically and transparently elected
2.4	The statutory bodies of our farmers' cooperatives function according to their mandates
2.5	The duration of the mandate of a leadership position is well defined
2.6	Internal communication within our farmers cooperatives is well organized: members are well informed about whatever is happening
2.7	Women and youth are sufficiently represented in the elected bodies of our farmers association
2.8	Collaboration between members is good
2.9	During meetings all participants share their point of view
2.10	The frequency of meetings to discuss our progress and problems is good
2.11	Every member in our farmers cooperatives has the same decision rights
2.12	Our farmers cooperatives is very good in problem solving
2.13	Overall, I am very happy with the objectives and the planning of our farmers' cooperatives

Figure 4.7: Governance, Leadership and Internal Democracy Performance of Cooperatives



Source: Author's Construct (2013)

- Members of TOPAN were fully and adequately satisfied with most of the statements under Governance, Leadership and Internal Democracy. However the following statements; 2.4, 2.7, 2.10 and 2.12 did not receive adequate satisfaction since they had positive scores.
- Most of the members of BONACOFSO were fully and adequately satisfied with statements 2.1, 2.9, 2.11 and 2.8 respectively. With the exception of statement 2.5 which receive a low score indicating dissatisfaction, the rest of the statements had positive scores, though not adequate satisfaction, improvement is not obligatory but is needed for cooperative's improvement.
- Members of Atolenenga Cooperatives were fully and adequately satisfied with statements 2.1, 2.9, 2.11 and 2.3, 2.5 and 2.6 respectively. The rest of the statements though did not receive adequate satisfaction, improvements are not obligatory but needed to improve the cooperative's performance.

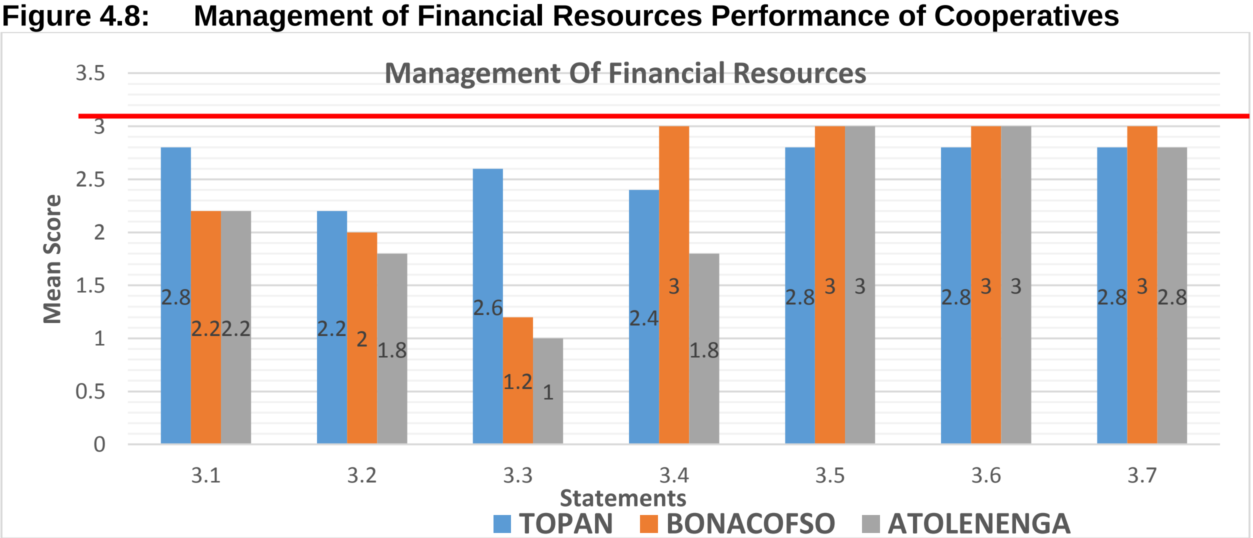
4.2.4.3 Management of Financial Resources

Self-assessment was done by the selected members on the following statements on a scale of 1 – 4 in the table below.

Table 4.13: Statements under Management of Financial Resources

3	**Management of Financial Resources**
3.1	Our farmers' cooperative functions on the basis of the financial contributions of the members.
3.2	Our farmers' cooperative can function well without outside financial support
3.3	The cooperative has other sources of income besides members' monthly contributions.
3.4	We have a committee that controls how expenditures have been done and how the financial books are kept
3.5	When the farmers' cooperative needs to buy something, the procedures to do so are transparent
3.6	Every year, the board or the treasurer explains how resources and income of the farmers' cooperatives have been used
3.7	Overall, I am very happy how the financial resources are managed by the cooperative

Figure 4.8: Management of Financial Resources Performance of Cooperatives



Source: Author's Construct (2013)

- Members of TOPAN were not adequately satisfied with all the statements under management of financial resources as most of the statements had positive scores of 2.6 – 3.0. Members were dissatisfied with statements 3.2 and 3.4 because of the low scores.
- Members of BONACOFSO were not also adequately satisfied with all the statements. Members were dissatisfied with statements 3.1, 3.2 and 3.3 because of the low scores, thus needing urgent attention for the cooperative's improvement.
- Atolenenga members were also not adequately satisfied with all the statements under management of financial resources. At least statements 3.5, 3.6 and 3.7 had positive scores, which is not an adequate satisfaction by members. The members were totally dissatisfied with the rest of the statements which had low scores, needing urgent attention for improvements.

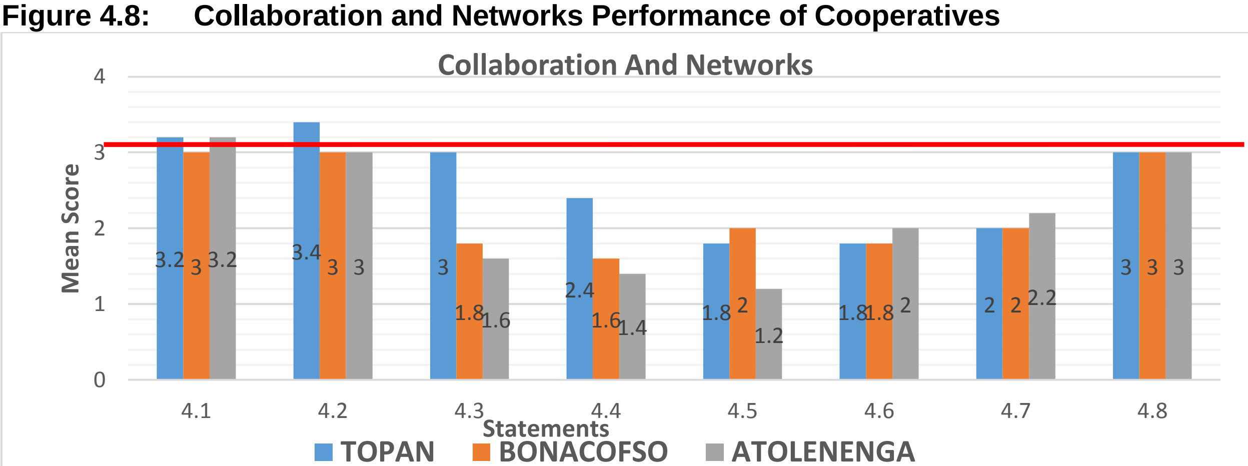
4.2.4.4 Collaboration and Networks

The cooperatives were assessed by the members on the following statements on a scale of 1 – 4 in the table below.

Table 4.14: Statements under Collaboration and Networks

4	**Collaboration and Networks**
4.1	In the past, we have had exchange visits with other farmers' cooperatives, to observe how other farmers cooperatives are functioning and working.
4.2	In the past years, our farmers' cooperative had approached institutes, NGO's, research centers and extension workers to find answers to the questions we had
4.3	Our farmers cooperatives had written project proposals with the aim to get support and funding for our activities
4.4	Our farmers cooperatives has formal agreements with banks facilitating members' access to credit
4.5	Our farmers cooperatives has established good agreements with input providers, to buy inputs at reduced prices
4.6	Our farmers cooperatives has established good agreements with traders to buy our tomatoes
4.7	Our farmers cooperatives has established good agreements with MOFA extension staff for extension services like collective field demonstrations
4.8	Our farmers cooperatives actively participates in meetings of other farmers association

Figure 4.8: Collaboration and Networks Performance of Cooperatives



Source: Author's Construct (2013)

- TOPAN members were adequately satisfied with statements 4.1 and 4.2 as the statements had high positive scores. Members were dissatisfied with the rest of the other statements except for statements 4.3 and 4.8 which had average positive scores between 2.6 and 3.0 indicating satisfaction but not adequate.
- Members of BONACOFSO were dissatisfied with most of the statements except for statements 4.1, 4.2 and 4.8 which they were satisfied but not adequately.
- Atolenenga members just like BONACOFSO were dissatisfied with most of the statements except for statements 4.1 which they were adequately satisfied and 4.2 and 4.8 which they were satisfied but not adequately.

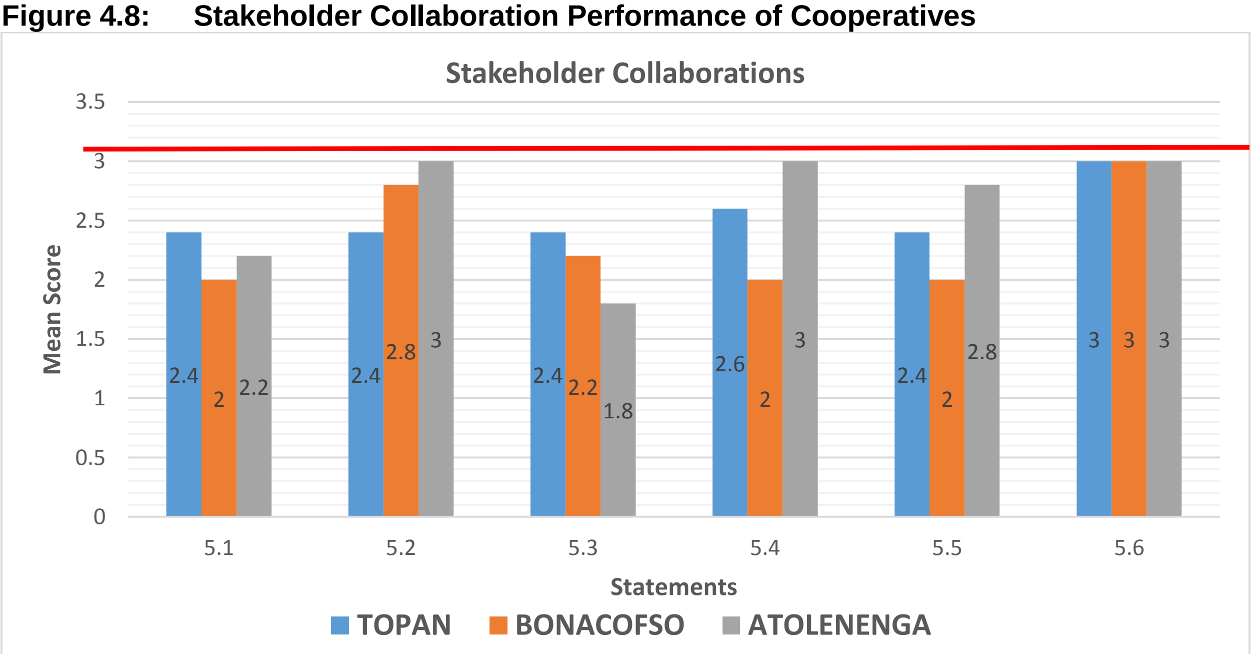
4.2.4.5 Stakeholder Collaborations

Assessment was done under the following statements in the table below on a scale of 1 – 4.

Table 4.15: Statements under Stakeholder Collaborations

5	**Stakeholder Collaboration**
5.1	Our input supplier gives us advice on how best to use the herbicides, fertilizers, insecticides and other input supplies
5.2	Our farmers' cooperative discusses with district authorities for supporting the tomato chain
5.3	We discuss with chain actors about what we can do for each other
5.4	We discuss with chain supporter about what they could do for us
5.5	If there is a problem, we openly discuss matters with the tomato traders and processors
5.6	Within the district, different stakeholders are discussing how best to develop the tomato value chain

Figure 4.8: Stakeholder Collaboration Performance of Cooperatives



Source: Author's Construct (2013)

- For most of the statements, members of TOPAN were not satisfied with them except for statements 5.4 and 5.6 which they were satisfied with, but not adequately.
- Members of BONACOFSO were dissatisfied with most of the statements but were however not adequately satisfied with statements 5.2 and 5.6.
- Members of Atolenenga Cooperative were not adequately satisfied with statements 5.2, 5.4 and 5.6. However they were dissatisfied with the rest of the statements in this category.

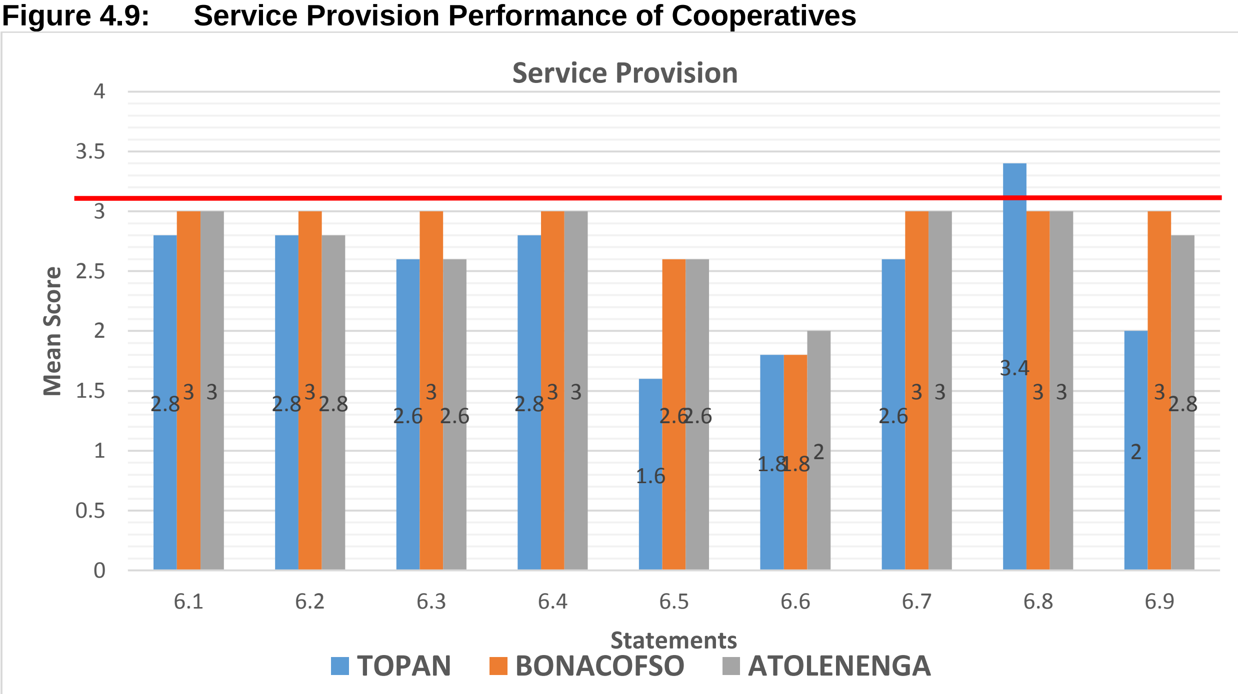
4.2.4.6 Service Provision

Assessment was done under the following statements in the table below on a scale of 1 – 4.

Table 4.15: Statements under Services Provision

6	**Service Provision to Members**
6.1	The services of the farmers' cooperative respond to my needs as a tomato farmer
6.2	I think our farmers' cooperative is efficient in providing information to the members
6.3	I am benefiting from trainings organized by the farmers' cooperative that make me a more professional tomato farmer
6.4	Thanks to the farmers' cooperative I now use inputs (such as improved tomato seeds, required fertilizer, right amounts of pesticides), which I otherwise would not have had
6.5	Through the cooperative I have no problems getting tractors to plough my farms.
6.6	I can get credit at the bank to finance production costs through the cooperative
6.7	Our farmers' cooperative has the habit of asking the members if they are happy with the services that are provided
6.7	I am very aware of the opportunities that we as tomato farmers have to be joined in a farmers' cooperatives
6.8	I am very happy with the way the cooperative helps me sell my tomatoes

Figure 4.9: Service Provision Performance of Cooperatives



Source: Author's Construct (2013)

- Members of TOPAN were dissatisfied with statements 6.5, 6.6 and 6.9 thus needing urgent attention for improvement. The rest of the statements though did not receive adequate satisfaction from the members, improvements are not obligatory but may be needed for the cooperative's improvement.
- Members of BONACOFSO were satisfied though not adequately with most of the statements under this category. They however are dissatisfied with statement 6.6 for the very low average score (1.8).
- Just like BONACOFSO, members of Atolenenga were satisfied though not adequately with most of the statements under this category. They however are dissatisfied with statement 6.6 for the very low average score (2.0).

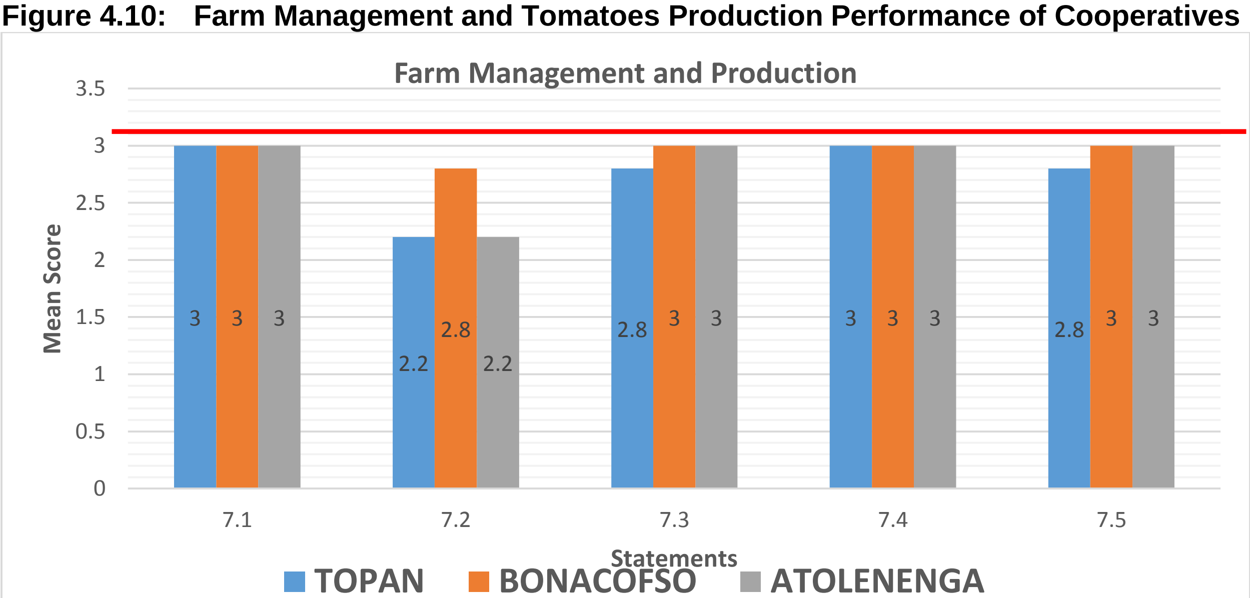
4.2.4.7 Farm Management and Tomatoes Production

Assessment was done under the following statements in the table below on a scale of 1 – 4.

Table 4.16: Statements under Farm Management and Tomato Production

No	Statement
7	**Farm Management and Tomato Production**
7.1	I have very good knowledge on tomato farming
7.2	The production of my tomato is high and is how I desired
7.3	I am able to plant good and healthy tomatoes on my farm
7.4	I am very good in recognizing disease symptoms in tomato plants
7.5	I can apply insecticides when I detect symptoms

Figure 4.10: Farm Management and Tomatoes Production Performance of Cooperatives



Source: Author's Construct (2013)

- Members of TOPAN were satisfied though not adequately with most of the statements, they were however dissatisfied with statement 7.2 with a low score of 2.2, needing urgent attention for improvement in the cooperative.

- BONACOFSO members were not dissatisfied, but were not also adequately satisfied with all the statements in the category. However improvements is not obligatory but may be needed for further improvements.
- Members of Atolenenga Cooperative with the exception of statement 7.2 which they were dissatisfied with, they were satisfied with the other statements but not adequately.

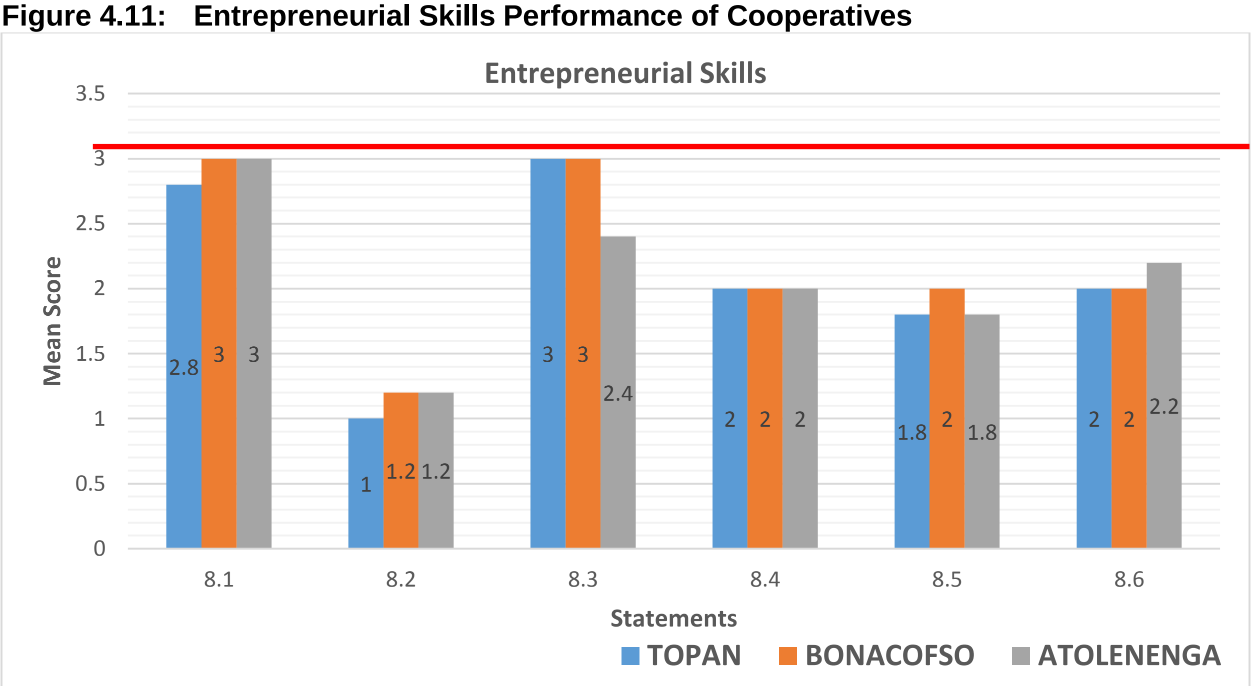
4.2.4.8 Entrepreneurial Skills

Assessment was done under the following statements in the table below on a scale of 1 – 4.

Table 4.17: Statements under Entrepreneurial Skills

8	Entrepreneurial Skills
8.1	Management are often trained to have the competencies and skills that are needed to perform their tasks.
8.2	Our farmers cooperatives has diversified into other activities in relation to tomato products
8.3	Our farmers' cooperatives has diversified into other activities which are not related to tomato production.
8.4	Our farmers cooperatives is very good in identifying market opportunities
8.5	Our farmers cooperatives is in general able to identify risks and opportunities very well
8.6	When our farmers cooperatives takes risks, we first analyze the situation properly and think of possible results and things that can go wrong

Figure 4.11: Entrepreneurial Skills Performance of Cooperatives



Source: Author's Construct (2013)

- Members of TOPAN were dissatisfied with most of the statements except for statements 8.1 and 8.3 which they were satisfied with but not adequately.
- For BONACOFSO members were also dissatisfied with most of the statements except for statements 8.1 and 8.3 which they were satisfied with but not adequately.

- Atolenenga Cooperative members were also dissatisfied with most of the statements except for statements 8.1 (positive score of 3.0) which they were satisfied with but not adequately.

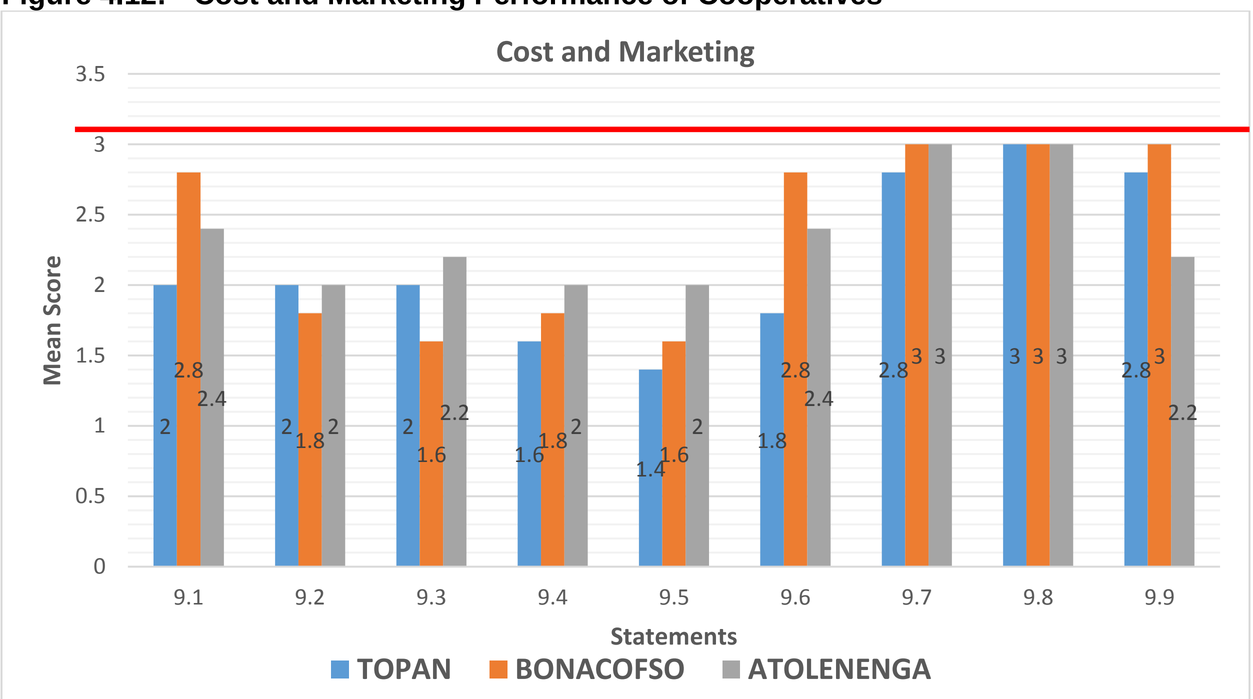
4.2.4.9 Cost and Marketing

Assessment was done under the following statements in the table below on a scale of 1 – 4.

Table 4.18: Statements under Cost and Marketing

9	Costs And Marketing
9.1	I am always able to sell my tomatoes
9.2	The farmers' cooperative provides enough information about where to sell the tomatoes
9.3	I know tomato prices at different markets at different times in Ghana
9.4	In case there is little market to sell the tomatoes, our farmers' cooperatives searches for new markets
9.5	Even if there is market for the tomatoes, the farmers' cooperatives is still active in searching for markets
9.6	I am happy with the price I get for my tomatoes
9.7	I am happy with the procedure of how I get paid for my tomatoes
9.8	Every season, I calculate the costs and benefits of the tomatoes production
9.9	My production costs are covered by the sales of tomatoes

Figure 4.12: Cost and Marketing Performance of Cooperatives



Source: Author's Construct (2013)

- The results indicate that TOPAN members were dissatisfied with most of the statements except for statements 9.7, 9.8 and 9.9 which they were satisfied with but not adequately.
- The results indicate that members of BONACOFSO were not also adequately satisfied with all the statements in this assessment area. They however were dissatisfied with statements 9.2, 9.3, 9.4 and 9.5 requiring urgent attention for cooperative's improvement.

- Atolenenga cooperative members also showed dissatisfaction for most of the statements except for statements 9.7 and 9.8 which they showed satisfaction but not adequately.

4.3 Motivation of Farmers to or Not to Form/Join Tomato Cooperative

4.3.1 Basic Information of Farmers

The table below shows the basic information of the randomly selected 20 farmers from the various production sites in the Bolgatanga Municipality for the interview.

Table 4.19: Basic Information of Selected Farmers

CATEGORY	PERCENTAGE				
Gender	Male (90%)	Female (10%)			
Age	20-35 (15%)	36-45 (55%)	46-60 (30%)		
Education	None (45%)	Primary (25%)	JHS (10%)	SHS (5%)	Tertiary (15%)
Acreage	≤ 2 (50%)	> 2 (50%)			
Experience in farming	Less than 5 (5%)	Between 5-15 (60%)	Between 16-30 (35%)	More than 30 (0%)	
Tomato contribution to household income	High (15%)	Average (45%)	Low (35%)	Nothing (5%)	

Source: Author's Construct (2013)

The table above shows that males dominated in the production sites from which the random selection was done. It also shows that more farmers in the age range of 36-45 years dominated in tomato farming with no farmer below the age of 20 years cultivating tomatoes. In terms of education, there were a little more literate farmers than illiterate farmers. More farmers had 5-15 years of experience in cultivating tomatoes, and currently tomatoes contribution to household income is average to low than previously.

4.3.2 Marketing Situation of Tomato Farmers

From the interviews of the selected farmers it was clear that, the market queens from the southern parts of the country were their major and targeted customers followed by the tomato factory when it is operating and a few Bolga market tomato retailers. It was also clear that there were no form of agreement between the farmers and the buyers, be it the market queens, the factory or the Bolga market tomato retailers. From the interviews, it was also found out that, the market queens had a station/base in the Bolgatanga Municipality and were always led by a group of local boys called lead boys/interpreters to the various production sites in the Upper East Region and Burkina Faso. It was also clear from the interviews that, sometimes representatives of the production sites go to negotiate with the lead boys on the commission per crate they lead boys would be paid before they would agree to bring the market queens to the production sites. However a few farmers (5 out of 20) contacted the market queens on phones. It was also found out that the payment method that existed was cash on delivery with few instances of buying on credit. However buying on credit was based on the relationship that existed between the farmer and the trader. When they fail to get the market queens to buy the tomatoes, it is only then the farmers rely on the tomato factory for the sale of their harvested tomatoes.

It was also revealed from the interviews with the farmers that, there were a number of issues with regards to the marketing of their produce as discussed below:

- **Volumes:** They expressed concerns about their current low yields per acre cultivated because of the death of most of the tomato plants in the fields at the flowering stage which happens almost every year. As a results, volumes per production site is not encouraging enough sometimes for the market queens to come there.
- **Prices:** Frequent fluctuations in the price of a crate of tomatoes per week especially at the peak of the production. Sometimes prices vary from one production site to the other in the municipality in the same day or week, depending on the bargaining strength of the production sites' representatives.
- **Logistics:** Logistical problems arises when farmers have to send produce to the factory or the local market. It is not cost effective for an individual farmer to rent a truck when the volumes involve is not so much.
- **Quality of Product:** According to the farmers the quality of the tomatoes is affected by insect pests attack on the plant and the fruits. Many have also reported that the tomatoes turns pale as a result of sunburns and really affect the sale of tomatoes. Besides this, they use the same variety that the Burkina Faso farmers use which the market queens prefer.
- **Relationship with Buyers:** According to some of the farmers, besides having some of the market queens' phone numbers, there is nothing more to that. The farmers expressed that, the lead boys are more of harm than good to them, because they lead the market queens to neighbouring Burkina Faso where the farmers allow them to take the left over tomatoes after sorting. They also benefit double, from the farmers there per crate sold and the market queens for the interpretation and price negotiations due to language barriers. Besides this, some of the market queens have always acted in some awkward ways to get the farmers desperate and sell at low prices per crate.

4.3.3 Farmers' Perceptions of Cooperatives

The results of the research indicate that all the farmers interviewed knew or have heard of cooperatives. The following were some of the responses from the farmers on what they knew about farmers' cooperatives;

A group of farmers with executives to steer the affairs of the group and representing them at regional and national levels.

A farmers' organisation that serve the interest of its members.

A farmers' organisation with technical staff and helps members with inputs, other services and marketing of produce.

An organised group of farmers for the purposes of finding solutions to their farming and social problems.

An organised group of farmers with a common goal of letting policy makers become aware of their concerns and to access support from government and other stakeholders.

An organised group of farmers for the purposes of sharing and learning from each other in their farming activities.

From the results only 8 of the respondents out of the 20 interviewed have ever dealt with a farmers' cooperative, farmer based organisations or any cooperative. The main reason they ever dealt with a cooperative or farmer based organisation was to learn from other farmers in the group about farming and to also benefit from any support coming to the groups from government and NGOs since such supports do not come to individual farmers.

For the farmers who have never dealt with a cooperative before, they gave some of the following reasons for not dealing with cooperative yet; the none existence of cooperatives in the area of operation; the cooperatives they know have not been successful in providing benefits to members and sometimes the leaders mismanage funds and assets belonging to the cooperatives; their other occupations take their time such that, they would be inactive in such a cooperatives.

From the research interviews with the farmers, it was clear from them that, cooperatives in general were good organisations whether they are able to provide tangible benefits for members or not since two heads are better than one. However, some leaders of cooperatives sometimes marred the reputations of them by mismanaging assets, embezzling funds and domineering in every aspect of the cooperative.

4.3.4 Factors That Influence Farmers to or Not to Join Farmers' Cooperatives

From the research, the farmers interviewed said it would be a welcome news for an initiative to bring tomato farmers in the Municipality together through a farmers' cooperative. This will enable them find common grounds for united actions and decisions that will go a long way to help all. However of the 20 farmers interviewed, 6 farmers said they may not like to be a part of the cooperatives because of certain reasons that will be discussed later in this section. The research results showed that, the following were some of the common factors indicated by the farmers interviewed for wanting to join a farmer cooperative:

- ✓ **Access to farm inputs:** Members of organised groups find it easy accessing farm inputs like seeds, fertilizers and tractor services because the leaders arrange with input dealers and the Ministry of Food and Agriculture for these services for the members. It is sometimes not easy for unorganized farmers to have access to seeds, fertilizer at critical periods of the production season when such inputs and services are needed.
- ✓ **Access to credit from financial institutions:** Financial institutions find it much easier and less risky dealing with organized groups because of low default rate with some groups. However they think it is much riskier dealing with the individual farmers and sometimes losses their cash.
- ✓ **To benefit from Government and NGOs support:** Most government and NGO supports come to organised farmers. So members of such groups benefit from trainings and workshops organized for them including farm machineries trials.
- ✓ **Benefit from Production Based Trainings:** Agricultural Extension Officers and NGOs work more with organised groups than individual farmers because of their logistical problems. Besides these, leaders of the groups sometimes ask for technical support to members from other NGOs into Agriculture.

The following were the uncommon factors mentioned by the farmers to want to join a cooperative or related organisations.

- ✓ **Sharing of farming ideas:** Opportunities are there for one to learn from other farmers in the groups about current tomato production practices and techniques.

- ✓ **Access market opportunities:** The group through its leaders may have links to buyers of the tomatoes and also the group stands a better chance in bargaining than individual farmers with the buyers.

The following were the other factors that would influence farmers not to join a farmer cooperative expressed by all the farmers interviewed.

Governance, Leadership and Internal Democracy:

- ✓ **Lack of common interest:** According to the farmers, the large numbers in the cooperative sometimes leads to the inability to come with a common goal due to the individuals' differences.
- ✓ **Non Transparent leadership:** At times the leaders mismanage the cooperative's funds and assets for their own personal gains.
- ✓ **No room for Opinions to be heard (large numbers):** Due to large numbers in the cooperative, may be only some key persons' opinions may be heard, whilst a majority's opinions will not.
- ✓ **Ineffective leadership:** Leaders may be incompetent and not functioning effective enough to steer the affairs of the cooperative for improvements.
- ✓ **Irregular and ineffective meetings:** According to the farmers sometimes meeting days are usually fixed, however, hardly is it followed and even when followed usually some of the meetings are not effective.
- ✓ **Ineffective internal rules and regulations:** Though rules and regulations may be set, they are sometimes relaxed and members take advantage to misbehavior.
- ✓ **Political Influences:** Divisions in the cooperative politically such that politics determines the leadership and major decisions.

Benefits and Services:

- ✓ **No equity in the sharing of benefits:** Favouritism of some members in the sharing of cooperative's benefits or services.
- ✓ **No benefits at all:** Inability of the cooperative to provide members with tangible benefits and services.

Farm Management:

- ✓ **Continuous death of tomato plants at flowering:** The farmers indicated that, if they belong to the cooperative, it would be because of tomatoes production, however if the tomato plants continue to die at flowering stage, they would not have any reason to still be members.

Finance:

- ✓ **Irregular financial contributions of members:** Sometimes it appears as if only some people are committed to the cooperative financially whilst others are not and yet such people are still members of the cooperative.

The farmers however suggested the following to make the farmer cooperative effective.

- ➢ Production Site Based Groups where they all will belong to one umbrella/mother cooperative that steers the business affairs of all.
- ➢ Provision of tangible services and benefits.
- ➢ Effective and transparent leadership.
- ➢ A common goal and interest.
- ➢ Regular and effective meetings.
- ➢ Financial self-sufficiency of cooperative.

- No Politics within and political Influences from outside.
- Equity in the sharing of cooperative benefits.

The farmers believe that if the cooperative is able to achieve most of these, through their leadership's collaborations with the relevant stakeholders, the cooperative/s will be capable of resolving some of the issues they encounter.

4.4 Likelihood of Market Queens to Trade with the Farmers' Cooperative/s

4.4.1 Current Marketing Situation of Tomatoes Market Queens in Ghana

The tomato market queens like other traders buy their produce from farmers in southern and northern Ghana and also from Burkina Faso. With respect to how they find the farmers, the Spokesperson said that, in the southern parts of Ghana they work with Farmer Based Organisations (FBOs) and so it is easier to find the farmers with tomatoes to buy through the FBOs. However in the upper east region and Burkina Faso, they go to the production sites with the help of lead boys who serve as interpreters and negotiate prices for them especially in Burkina Faso.

The Spokesperson of the tomato market queens, also said the following were the issues encountered by the market queens in their trader in the Upper East Region and especially Burkina Faso.

- The traders encounter transit problems especially when crossing into Burkina Faso to buy tomatoes; border authorities continue to worry the traders to produce unnecessary documents and payments which Ghana and Burkina Faso authorities have not agreed upon. Besides they spend more money and time to get to Burkina than the Upper East Region in terms of distance and looking for the farmers.
- The lead boys take advantage by levying the market queens so much for the work done interpreting and bargaining the prices. According to Spokesperson "*They always want to enrich their pockets overnight"*.
- Low quality of Upper East tomatoes: though both Burkina and Ghana farmers use the same variety, the production methods(use of compost instead of chemical fertilizers, use of drip irrigation instead of normal/gravity irrigation) makes the Burkina Faso tomatoes to stay without rotting till traders get back to Accra in a matter of 5 days to sell.
- No Relationships: the nonexistence of relationship as existed in the early days of the trade brings a lot of uncertainties in the trade as quality and volume per trip is not assured.

4.4.2 Tomato Market Queens' Perceptions of Farmers' Cooperative/s

According to the Spokesperson of the market queens, they have worked with some FBOs in the southern parts of the country in Techiman, and Tano South through an NGO called TIPSE. The Association worked or dealt with the FBOs because of Good Agricultural Practices. These FBOs were able to adhere to GAP and so tomatoes from them were of good quality and did not affect their trade. As a result of their dealings with these FBOs, they have very good impressions of farmer cooperatives/FBOs. However, the activities of some FBOs are marred by some of their leaders' attitudes by trying to proof difficult and selfish.

4.4.3 Influences of Farmers' Cooperative/s on Tomato Market Queens Trade

According to the Spokesperson of the market queens association, the association will see the formation of a tomatoes farmers' cooperative in the Upper East Region as a welcome news because the association have always wanted the farmers in the Upper East to be organised. This way collaborations between them and the farmers' cooperative/s would go a long way to benefit both sides in terms of finding common grounds to resolve certain issues pertaining to both sides like price, quality and volumes of tomatoes. A farmers' cooperative would influence their trade positively in the following ways:

- **Relationship Strengthening:** A good relationship with the established farmers' cooperative would enhance trust between them. It will also improve transparency in their transactions and also bring about sharing of information with respect to volumes ready for outbound, and quality required between the two organisations. The traders' association already have a data base of all tomatoes market queens and assigns days to each for the trade.
- **Setting of Standards:** There are currently no standards in the trade between farmers and the market queens in terms of crates size and quality of tomatoes. The traders association in collaboration with the farmers' cooperative in the Upper East may bring about standards in the trade that would bring about win-win situations to both sides.
- **Institutional Support:** Together with the farmers' cooperative, they may be able to influence policies in the tomato sector affecting the trade.
- **Lead Boys Influence:** Trading with the tomato farmers' cooperative would take away the lead boy influence since the market queens association would deal directly with the farmers' cooperative.

Notwithstanding this, the cooperative/s may influence their trade negatively in this way:

- **Low Supply Base:** On a weekly basis, certain volumes of tomatoes are required by the various market centers in the big cities of the country. If the market queens are to trade with the farmers' cooperatives and the cooperative/s are not able to meet their volume requirements weekly and also in a time span of about five months, it will definitely affect their trade
- **Low Quality of Produce:** The supply of low and substandard quality tomatoes to them will definitely affect their trade as they may lose their whole consignment on the way down south due to rotting.

4.4.4 Relationship Preferred by Tomato Market Queens with the Cooperative/s

According to the market queens association, it would be preferable for the leaders of the association to deal directly with the cooperative/s rather than the individual traders themselves. The individual market queens may not be able to resolve any issues they may have with the cooperative/s, but the association can meet with the leaders of the cooperative/s to solve it. Individually they may not know what volumes they should be expecting per day or week, but the leaders of the association can coordinate with the cooperative/s. It may also be impossible to transfer uniform information to the cooperative/s on tomato variety and quality required, but the association through the leaders can do so.

Though the association would like to trade with the cooperative/s, the association will like to deal with the cooperative/s for the beginning without any form of contracts but on trust and transparency because the association is not certain of the reputation and trustworthiness of the cooperative/s and the capacity to provide good quality tomatoes for trade. When the association becomes certain of these, contracts could be written with the cooperative/s.

5 DISCUSSION

5.1 Performance of the Cooperatives

Internal Organizational Performances of Cooperatives

- **Staff Capacity**

The analysis by the MIDCA Tool shows that the three cooperatives performed below average in this area with scores below 50%. The cooperatives have similar management structures of which the five executives (management staff) who are also members of the cooperatives have been democratically elected by the members to steer the affairs of the cooperatives. It was noticed that, the managers were not experts in the field of cooperative management even though they have been trained once or twice on their roles and responsibilities by some NGOs. This type of leadership sometimes brings the problem of commitments and effectiveness, since the managers are themselves members running the affairs of the cooperatives and taking care of their own production issues. Besides being democratically elected does not mean one is competent. This has been highlighted by Adrian and Green, (2001) that, the rapidly evolving business world compels cooperatives to adjust and adapt or face the likelihood of jeopardizing their continued survival. A competent and an effective manager will serve as an essential link in the execution of business practices intended to make future cooperatives viable and efficient businesses that effectively serve member needs. The cooperatives' structures have not also made room for Board of Directors (BOD) to oversee and advice the managers of the cooperatives on their line of business activities. The implications are that the managers, risk jeopardizing the fortunes of the cooperatives or may exhibit a total lack of business focus on what to do to improve the cooperatives without the BOD. Koopmans (2006), asserted that, an effective board of directors coupled with qualified and professional management team is essential for the success of a cooperative.
The results also showed that the cooperatives did not have technical staff to support the members with new improve production techniques. This lack of technical staff to support the members in their production is likely to affect production volumes and quality of the product, tomatoes. According to Shiferaw *et al,* (2008) interventions that improve effective plans for risk management and improving the business skills of farmer marketing groups are necessary for these groups and these come with a professional management team. Banaszak (2008) also stressed the importance of leadership strength in the success of cooperatives.

It was realized that, the cooperatives rather have quite a simple governance structure thus the elected executives (managers) and then followed by the members of the cooperatives, which apparently works for them.

- **Financial Management**

The results from the MIDCA Tool also revealed that the three cooperatives performed below 50% in this area of the cooperatives with scores in percentages of 27%, 15% and 15% for TOPAN, BONACOFSO and Atolenenga respectively. The cooperatives coincidentally could only meet in a year, 7.5% of their trade financial needs from the monthly contributions of members. The inability to meet trade financial needs means that the cooperatives probably are dependent on only members' contributions to operate which in itself is not sufficient enough. Bijman (2007), asserted that finance is one of the factors that influence the success of cooperatives in their attempt to enhance their situation in the supply chain and that finance, thus capital investments into production and postharvest processes to meet customer requests is very important. The inability of the cooperatives to widen their income sources have contributed to the low performances in this area. This is reflected in the cooperatives' inability to meet their trade financial needs and also with a very low solvency ratio. Koopmans (2006) indicated that, sufficient capital by a cooperative from various sources like the members, net surpluses generated by the cooperative and external sources is very important for success.

The cooperatives have not been able to generate income from net surpluses, access financial support from external sources except TOPAN, which had access to financial support from Agricultural Development Bank and a donor agency through the aid of Trade Aid. FAO (2001), asserts that a farmer group and for that matter a cooperative should have well-defined activities that bring income to the group, should be very self-reliance, be able to manage their financial matters efficiently and to repay debts promptly, should have enough group savings to cover their own activities and any risks or costs associated with their operations and development. The implication is that the cooperatives need to widen their income sources in order to be self-reliant and also be financially transparent to disclose sources of finance to members.

- **Long Term Perspective**

From the analysis with the MIDCA Tool, with the exception of TOPAN which scored 53%, BONACOFSO and Atolenenga scored below 50% with scores of 33% and 27% respectively. From the results, it was realized that though the cooperatives had objectives written in their constitution, the objectives were not business and market oriented, they were more of community based support objectives. It could be said that the cooperatives have no "*sense*" of business direction since none of the cooperative had a strategic plan to determine the future line of business of the cooperatives. With respect to strategies to be financially self-sufficient, there was no such strategies for any of the cooperatives. This is very worrying for a cooperative that seeks to address the interest of its members in terms of supporting them in the area of production and marketing. It is even more worrying that managers (elected executives) of the cooperatives with the exception of TOPAN could not express the strategies to move the cooperative forward financially and business wise. It can be said that the low performance of the cooperatives in this area is partly due to the lack of business focus of the managers of the cooperatives. Because if the managers had a business focus for the cooperatives, they would have come up with a more business and market oriented objectives and strategies the cooperatives could have used to be financially self-sufficient in the long term and not depend only on member monthly contributions. This has been asserted by Koopmans (2006) that, Technical and Economic Feasibility of a cooperative is essential for its success. A cooperative with a business plan outlining both the short and long term vision and required investment to be made is very essential for the success of the cooperative.

Market Performance of the Cooperatives

- **Sales**

The MIDCA Tool revealed that none of the cooperatives were successful in organising markets for the products of their members. Meanwhile that was apparently the reason why they were formed in the first place as mentioned in their constitutions. Their inability to market the members' products could be as a result of a lack of a marketing strategy by management, inability to diversify client portfolios and the product range into different product qualities. It could also probably be the lack capital to organise the marketing activities. According to Penrose-Buckley

(2007), producer organisations can improve their marketing strategy and business income by raising the volumes of sales, adding value, processing, product differentiation, diversification into high value products and also market development.

This low performance of the cooperatives in this area is partly a managerial problem and also a financial one. This has been highlighted by Shiferaw *et al*, (2008) who indicated that inability of groups to pay on delivery, due to lack of capital credit, is a major limitation that compromise competitiveness of marketing groups relative to competitors. Thus for the cooperatives to be able to organise their marketing activities well, there should be a marketing strategy in place, diversify client portfolios and may be product range, with sufficient capital.

- **Relationship with Stakeholders**

The results indicate that the cooperatives are doing a little above average in this area of the cooperatives with scores of 68%, 50% and 50% for TOPAN, BONACOFSO and Atolenenga respectively. It could be seen that all the three cooperatives had good relationship with their members (internal customers), and their community which is very essential for the existence of the cooperatives. This is what has contributed positively to the performance of the cooperatives in this area. With respect to their relationship with other stakeholders like financial institutions, clients and supporters, the cooperatives were rather weak in this respect. Meanwhile these are the very important relationships for the cooperatives if they are to be market oriented and providing services to members. A good relationship with clients better positions a cooperative or any business venture to be more competitive than other competitors. A good relation with financial institutions and other supporters provides other alternatives for financial needs and other support related needs to be met in the short and long term. The importance of relationship with stakeholders has been highlighted by Markelova *et al*, (2009), when they said some degree of outside assistance, both financial and in capacity building is often needed for producer groups to form and function successfully, but this can introduce problems with sustainability versus dependency of the organisations. Stockbridge *et al*. (2003). Also emphasized the importance of the cooperatives relating with stakeholders as it may provide farmers with better services and terms of exchange in their transactions, and also facilitate transactions and access to services that might not otherwise be available to many farmers.

Production Performance of the Cooperatives

- **Membership Base**

The results shows that TOPAN has performed well in this aspect of the cooperative. However BONACOFSO and Atolenenga performed poorly. TOPAN's performance has been due retention of total and active members of the cooperative and also because it aided the formation of other cooperatives in the community. BONACOFSO and Atolenenga performed poorly due to reduction in total and active members and the inability to strategise to increase member base. Notwithstanding this, the results indicate that the three cooperatives have membership less than 30 people each. For a cooperative seeking to enjoy economies of scale, reduce cost of operation and to market member produce, small numbers in the cooperative is likely not to favour it in this regard. This has been asserted by Banaszak (2008), in an interview with 62 farmers' cooperative in Poland that, the larger the group, the more probable it was to be successful because on the one hand it might reduce transaction costs, and on the other hand reduce the danger of internal rent seeking and opportunistic behavior. However Stockbridge *et al*, (2003) thinks that for the purposes of internal cohesion, small group sizes that permit regular face-to-face contact between members is important.

- **Product**

According to Barham and Chitemi (2009), groups' effectiveness in marketing depends on the groups' endowment with favourable agro-ecological factors, such as a reliable water source, good lands and soils, and with crops with market potential. Groups without these natural assets will find their marketing activities severely limited. The cooperatives performed poorly in this regard because productivity per hectare of members were not increasing but had remained the same or even decreased due to probable nematodes infestation of production fields. Productivity of members of the cooperatives compared to average productivity in the area and municipality were almost the same. This could have arisen because of the lack of technical staff to support the members with production techniques in the field. Members of the cooperatives have also continuously used the same variety over time now so the quality of the product has remain almost the same in taste, size and weight. However this quality attributes are being affected by disease infestations of fields. There were no quality management systems in place by any of the cooperatives as it is not a requirement by any of the buyers. This indicate that there has been less development of the product (tomatoes) in terms of its quality and productivity improvements by the cooperatives to attract the potentially available markets and also to remain competitive. This has been emphasized by Bijman (2007) that, new functions have to be taken up by cooperatives that want to improve their position in the supply chain and these functions include improving and assuring product quality, and improving logistic efficiency. This is also supported by Penrose-Buckley (2007), that POs need to monitor and control the production process and the quality of the final product they sell in order to meet the quality requirements of some markets.

- **Services**

The results indicate that the cooperatives performed quite well in this area, however TOPAN and Atolenenga seem to have done better in this area with scores of 70% and 60% respectively. According to Bijman (2007), cooperatives play various functions in order to improve the prosperity of its members; collective marketing of farm products, collective purchasing of inputs, sharing of risk and assembling and transferring market information. From the results the cooperatives have been able to provide some services to the members, on production issues such as access to fertilizer, organisation of technical trainings in collaboration with extension officers and NGOs, facilitation to access tractor services. For a cooperative seeking to be competitive and aiding members to market their products, it should go beyond production base support to providing marketing base support to members such as collective marketing and transfer of market information to members. As asserted by Penrose-Buckley (2007), that POs should be able to provide some of these services to members; input supply, production services, trainings, financial services, quality control, coordinating production, output marketing, processing among others.

Members' Assessment of the Cooperatives Performance

- **Membership Base**

According to the cooperative principles of **Voluntary and Open Membership, and Democratic Member Control,** cooperatives are voluntary organisations, open to all persons irrespective of gender, social, racial, political or religious differences; Democratic organisations controlled by their members, who actively participate in making decisions. Members have equal voting rights, thus one member one vote, (ILO, 2013 and ICA, 2011). The results indicate that on the average, members of the cooperatives were adequately satisfied with conditions for adhering to cooperative, open membership and up to date member registers. However they were not adequately satisfied with certain aspects of membership base especially the awareness of cooperatives' objectives and plans, members' regular contributions and participation in most activities. For the cooperatives to continue to adhere to those principles, they should do more to get members involve in the activities of the cooperatives.

- **Governance, Leadership and Internal Democracy**

According to Koopmans (2006), Organisational Structure, thus the internal governance mechanisms like rules and by-laws, decisions on general policy issues, elections, appointment and dismissal of board of directors, approval of budgets play an important role in the success or failure of a cooperative. From the results of the research, the cooperatives were doing well in most of the aspects in this assessment area as members were adequately satisfied with the statements posed. Notwithstanding this, certain areas in this assessment area needs improvements for better performance of the cooperative since this has the potentials of compromising the performance of the cooperatives. The cooperatives could do better by ensuring that the statutory bodies function well and also involve women and youth in the leadership of the cooperatives.

- **Management of Financial Resources**

From the results of the members' assessment, it could be seen that on the average the cooperatives were not doing well in terms of the management of financial resources as the cooperatives are not able to generate enough monies internally, have no alternative sources of funding and apparently do not have committees to control expenditure and financial books. As asserted by Koopmans (2006), sufficient capital from different available to the cooperative also contributes to the success or failure of a cooperative. If the cooperatives continue this way, they would probably face their end in no time since most services to keep members committed to the cooperatives requires the cooperatives to be financially strong. This has been highlighted by Chibanda, *et al* (2009) that, poorly defined property rights in traditional cooperatives, give rise to financial problems like low levels of equity, reliance on external funding, less investment, and subsequent loss of members. The cooperatives can also improve financial transparency by putting in place a committee to audit the accounts quarterly or annually.

- **Stakeholder Collaborations and Networks**

The results revealed that the cooperatives performed poorly in this area as the cooperatives failed to establish good relationships with input providers, financial institutions, donor agencies, traders, extension agencies and other actors in the tomato chain to enhance the performance of the cooperatives. This is most especially important for cooperatives if they are to be able to markets members produce. As asserted by Markelova et al., (2009) some form of support both financially and capacity building is important for cooperative's success. Stockbridge et al., (2003), also asserts that relating with stakeholders may provide farmers with better services and terms of exchange in their transactions, and also facilitate transactions and access to services that might not otherwise be available to many farmers. Notwithstanding this, the cooperatives rather have been good in their collaborations with other cooperatives in the community.

- **Service Provision**

As asserted by Bijman (2007) and Penrose-Buckley (2007), POs should be able to provide some services like collective marketing, purchase of inputs, trainings, production services among several others. The results revealed that, in general the cooperatives have been able to extend some services to the members. However they have not been successful in meeting all the services required by their members thereby not meeting their satisfaction adequately. In order to stay successful and maintain their member base, the cooperatives should strive to provide most of the services that are required by the members.

- **Farm Management and Tomatoes Production**

The results indicate that even though the members were not adequately satisfied with their level of farm management, they were either not dissatisfied with their level of farm management through the cooperatives. This indication could be as a result of the lack of technical staff by the cooperatives to support the members in the production of tomatoes. Penrose-Buckley (2007), points out that trainings on production and also on business management for members, by the cooperative is a very important service to be provided.

- **Entrepreneurial Skills**

The results indicate that, in general the cooperatives have very low entrepreneurial skills and the members are very dissatisfied with that. This situation does not only cause marketing problems but also governance problems as asserted by Chibanda *et al.* (2009) that, sometimes a lack of entrepreneurial skills causes governance problems as it is strongly linked to low levels of education, lack of production and management skills training, weak marketing activities.

The cooperatives need to have good and business oriented management to explore and identify other markets for the tomatoes and also to adapt the cooperatives to meet the market challenges. This has been emphasized by Adrian and Green (2001), that the rapidly changing business world needs competent and well-informed managers of cooperatives to run the affairs of the cooperatives.

- **Cost and Marketing**

According to Penrose-Buckley (2007), and Bijman (2007) one of the services a PO can provide to members is collective marketing of their produce. The results of the assessment also indicate that the cooperatives have not been successful in arranging marketing services for the members and members are very dissatisfied with that. As a result of this most members at times have not been able to break even as they are not able to sell all their produce.

5.2 Motivation of Farmers to or not to join a Tomato Farmer's Cooperative

Farmers' Marketing Situation

From the analysis of the results of the farmers' interviews, it is realized that the farmers have about three main channels (market queens, Bolga Tomato Factory and Bolga tomato retailers) to whom they can sell their tomatoes. This findings is supported by Robinson and Kolavalli, (2010b). However the preferred and targeted customers were the market queens. It was also noticed that the farmers do not always know beforehand who among the targeted customers, would probably come to buy the produce at what price and volume. Thus leaving everything to chance, which is unlike a business oriented farmer.

The marketing situation the farmers find themselves can be said to be a spot market arrangement because there are no business relationships, or any form of arrangements between buyer and seller, therefore no one is committed to fulfilling any commitments. This findings is also supported by Robinson and Kolavalli, (2010b).

The analysis also indicate that lead boys/porters are playing a crucial role in the marketing of tomatoes by the influence they have on the farmers' targeted customers, the market queens. They can virtually direct the market queens to or away from a production site because the market queens depend on them to find good quality tomatoes for their trade. This finding has been found to be in line with Robinson and Kolavalli's, (2010b) findings that, the traders and the lead boys are perceived to be the most powerful in the chain.

From this research, farmers face both production and marketing problems but less on production than in marketing such as low product quality, lead boys influence, poor relations with traders.

Farmers Perceptions of Cooperatives

The research revealed that all the farmers interviewed have heard of and knew what cooperatives were. However, not all the farmers have ever dealt with a cooperative before. Few of the farmers have ever dealt with a cooperative and did so because of the services and benefits that came with cooperatives. Majority of the farmers did not because, some did not find any cooperative to join and others thought cooperatives could not deliver much services to them.

The farmers' definition or interpretation of what a cooperative is or was, clearly indicated that they had only one sided view of a cooperative as providing production services but not as one that could provide business oriented services to members. This is supported by Bernard et al. (2013), when they also found out that agricultural cooperatives were seen as channels through which farmers could receive inputs for farming but not as one with a marketing function. This clearly indicate that there is less education or awareness by farmers on what cooperatives can do for farmers beyond the production and social services. This assessment is also supported by Nilsson *et al.* (2007), when they also found out that many consumers have little knowledge of cooperatives and their activities.

The farmers however perceived agricultural cooperative and cooperatives in general to be good organisations whether they are able to provide services to members or not. This was also found out by Nilsson *et al.* (2007), in their study. Though cooperatives are perceived to be good organisations, their good reputations at times are marred by attitudes of the leadership.

Factors that Influence Farmers to or not to Join Farmers' Cooperative/s

From the analysis of the research results, it is realized that the factors that influence the farmers to join a farmer cooperative were those of benefits (i.e. access to, inputs, credit, government and NGOs support, trainings and probably market) expected from the cooperative, rather than characteristics of the individual farmer like age, education, farm size and experience in farming. This findings is however different from the findings of Klein *et al*. (2005), Karli *et al*. (2006), Khalkheili and Zamani (2009), Nugussie (2010), Fischer and Qaim (2012) and Zheng *et al.* (2012) that, farmers' characteristics like age, education, farm size and income influenced their decision to join farmer cooperatives or organised groups. This therefore indicate that the ability of the cooperative to deliver the services or benefits expected by the farmers, the more the farmers would stay committed to the cooperative and also the more membership it would have.

The analysis showed that, the factors that influence farmers not to want to join or participate in a farmer cooperative were related to governance, leadership and internal democracy, benefits and services, finance, and farm management issues. This findings is somehow similar to the findings of Khalkheili and Zamani (2009) that, unequal share of water among farmers, dissatisfaction with water staff and water payments, influenced farmers not to join an irrigation management scheme. The inability of a cooperative to perform well in the areas mentioned above, the more farmers are likely to remain uncommitted to the cooperative. Besides membership may not also increase which would likely affect the cooperative's supply base to meet the volumes that may be required by its buyers.

5.3 Likelihood of Market Queens to trade with the Farmer cooperative/s

Marketing Situation of Market Queens

The analysis of the results indicate that the tomato market queens buy tomatoes from various sources including individual farmers and farmer base organizations especially in the southern parts of Ghana. They also buy the tomatoes from various locations in Ghana and beyond into Burkina Faso for their trade in the big cities of the country**.** This findings is supported by Ngeleza and Robinson (2011) that the market queens are a link between farmers and urban consumers and form a strong entity controlling the distribution of tomatoes into the big cities of Ghana.

Notwithstanding this, it is clear that the market queens encounter a number of problems especially in the buying of tomatoes from the upper east region of Ghana and Burkina Faso. The problems encountered include transit and logistical problems as border authorities continue to make unnecessary demands, lead boys/porters/interpreters influence, as they make unlawful charges for the services provided them. The apparent inferior quality of upper east tomato compared to that of Burkina Faso even though they use the same varieties, due to the overuse of agrochemicals by farmers, thus causing them to at times lose their investments as the tomatoes get rotten on the way. This finding is reported by KIT and IIRR, (2008) in the book, *Trading Up*. The last but not the least the nonexistence of relationships between the market queens and the farmers thus making the trade very uncertain with regards to quality and volumes. Laube et al. (2008) also reported that the market queens also encounter a number of constraints in their trade and are pruned to risk of arm robbery and accidents as they move up north and down south the country.

Market Queens' Perceptions of Farmers' Cooperatives

The research findings indicate that the market queens perceive farmers' cooperatives or farmer based organisations to be good organisations to work with. It is as a result of their good reputations, capacities and abilities to meet their needs in terms of quality, volumes, together with collaborations in other activities that encouraged the association, to trade and deal with some FBOs in the southern part of Ghana in their trade. This findings correspond to what KIT and IIRR (2008), found out about the perceptions of traders about farmer organisations in Trading Up that, traders perceive farmer organisations to be good to work with.

Influence of the Farmers' Cooperative/s on the Market Queens' Trade

The research revealed that, the farmers' cooperative would have more positive than negative influences on the trade of the market queens. The negative influences on the market queens would arise when the cooperative under performs in the area of product quality and volumes. The expected positive influence on the market queens' trade include relationship strengthening, standards setting in the trade, access to institutional support and the override of the lead boys' influences to create a win – win situation for both market queens and farmer cooperatives. This implies the establishment of a stronger relationship between both organisations and also finding common grounds for setting standards (quality, standardize volumes) in the trading of tomatoes.

Relationship Preferred by Market Queens with the Farmers' Cooperative/s

The research revealed that, the tomato market queens prefers transactions between the cooperative and them to be done by their leaders. This is because of anticipated volume and information coordination problems that may arise if transactions are to be done by the individual market queens with the cooperatives.

The findings however revealed that the market queens would not want to be bound by any contract with the cooperative in their initial dealings. Because they are not sure of the capacity and ability of the cooperative to supply the required quality and volumes yet. They would however relate with the cooperative based on trust and transparency for the start. Thus the relationship that will exist between the two organisations in the future would depend to a large extent on the performance of the cooperative/s. This has been highlighted by Mohanty and Gahan (2012), that "buyer supplier relationship is dependent on four factors; strategic requirements of the organisation, supplier performance, mode of operation and personal factors like trust, commitment, loyalty, openness, attitude and flexibility".

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The purpose of the research was to recommend to the Ministry of Food and Agriculture whether to initiate the formation of Tomato Farmers' Cooperative/s in the Bolgatanga Municipality and the Region at large in the attempt to link tomato farmers to markets. And also to identify areas of cooperative organisation to pay attention to, by assessing the performance of the three existing registered Tomato Cooperatives, the motivation of Farmers and Market Queens to trade with a Tomato Farmers' Cooperative/s.

To be able to provide answers to the objective above, the answers to the research questions leading to the answering of the research objectives would be concluded first.

Performance of the Three Existing Tomato Cooperatives

- **Internal Organisational Performance:**

The research revealed that the cooperatives performed poorly in this aspect of cooperative organisation. The cooperatives had only their elected executives who had insufficient competence to manage the cooperatives. The cooperatives also lacked technical staff to support their members in the production of their tomatoes. This was supported by the cooperatives members' dissatisfaction in the entrepreneurial skills of management, and with little dissatisfaction for farmers' farm management and tomatoes production.

The cooperatives were only able to cover 7.5% of their trade needs. The cooperatives were dependent on only members' monthly contributions. This was supported by members' dissatisfaction in the cooperatives' financial resource management.

With regards to the cooperatives' long term perspective, the cooperatives had no objectives which were business or market oriented but were community oriented. The cooperatives did not have any strategic business and financial plans to improve the cooperatives performance.

Notwithstanding this, members found the cooperatives to be performing in the area of internal rules and regulations and internal democratic processes as they showed satisfaction in cooperative governance, leadership and internal democracy.

- **Cooperatives Market Performance:**

The research revealed that the cooperatives did not arrange marketing services for the members due to lack of a marketing strategy by the managements. The cooperatives did not diversify their clients' portfolios and depended on one main buyer. The cooperatives did not diversify the tomato product and also did not diversify into other products besides tomatoes. This finding was supported by the members' dissatisfaction in the area of marketing of the cooperatives.

The cooperatives were able to maintain a good relationship with their internal customers (members) and the community. However they were not able to maintain strong relationships with clients, financial institutions, NGOs and other stakeholders very important to improve the cooperatives' performance. The members' assessment also showed that the cooperatives performed poorly in this aspect.

- **Cooperatives' Production Performance:**

It was revealed that two of the cooperatives' active members had reduced and they have not been able to increase membership base. Besides, the cooperatives had membership less than 30 people for which some scholars have it that for the sake of scale economies and collective marketing, the numbers are not enough.

Tomatoes productivity of the cooperatives' members had remained the same and even sometimes had been affected by disease infestation. Members have continuously used the same tomato variety for a long time and quality of the tomatoes have almost remained the same. This has been indicated by members' not too well satisfaction in farm management and tomato production.

The cooperatives have been able to provide some services like helping members to access fertilizers, extension trainings and sometimes tractor services. However members wished for more services from the cooperatives like access to credit and markets. This finding is supported by members' not too well satisfaction in the services provided by the cooperatives.

Motivation of Farmers to Join Tomato Farmer's Cooperative/s

- **Market Situation of Farmers:**

The research revealed that the marketing context farmers found themselves was that of a spot market where there were no relationships among actors. Farmers in the Upper East Region have three channels to sell their tomatoes to, i.e. the market queens, Bolga Tomato Factory and Bolga market retailers. However the preferred channel was the market queens. Farmers marketing of tomatoes in the Upper East Region of Ghana was and is affected by; (1) lead boys who have influence on the targeted customers of the farmers, by directing them away from Upper East Region to Burkina Faso for their own personal gains thereby affecting farmer–buyer relationship; (2) price fluctuations and variations per week from one production site to another; (3) tomato quality deterioration by insects and (4) lower volumes due to low yields caused by plants death at flowering.

- **Farmers' Perceptions of Farmer Cooperatives:**

It was revealed that farmers had positive perceptions about farmers' cooperatives as a means to bring farmers together for united actions. However they think sometimes the actions of some cooperative leaders marred the reputations of farmers' cooperatives. Farmers' definition and interpretation of what farmer cooperatives were, indicated that they did not know farmer cooperatives to have the capacity to play a market function.

- **Factors that Influence Farmers to or not to join Tomato Farmers' Cooperatives:**

The research identified that, the factors that would influence farmers to join tomato farmers' cooperative were those of benefits associated with well-functioning cooperatives and not farmers' characteristics. The benefits farmers were expecting from such a cooperative were access to; inputs, credit, government and NGOs support, trainings and may be market. And that factors related to most especially governance problems associated with some farmer cooperative/s, would influence them not to join.

Likelihood of Market Queens to Trade with Tomato Farmer Cooperative/s:

- **Market Situation of Market Queens:**

It was revealed that the market queens buy tomatoes from individual farmers and FBOs in Southern Ghana and individual farmers in the Upper East Region of Ghana and Burkina Faso.

The market queens encountered problems like transit and logistical problems when entering into Burkina Faso, lead boys influence as they levy them so much for their services of leading them. The overuse of agrochemicals by some tomato farmers in the Upper East Region reducing the quality in terms of shelf life. The nonexistence of farmer-buyer relationships creating uncertainties in terms of volumes and quality.

- **Market Queens' Perceptions of Farmer Cooperatives**

It was shown that, the market queens perceived farmer cooperatives to be good organisations as they have successfully worked with some FBOs in the southern part of Ghana in their trade.

- **Influence of Farmer Cooperative/s On Market Queens' Trade**

From the research, the market queens saw farmer cooperatives to have more positive than negative influences on their trade. Thus the farmer cooperative would serve as a platform to strengthen the relationship between tomato farmers and their association. And also to find common grounds for setting standards (quality, standardize volumes) in the trading of tomatoes. However, the inability of the farmer cooperative to meet volume and quality requirements would definitely affect their trade.

- **Relationships Preferred by Market Queens with Farmer Cooperative/s**

It was realized from the research that, the market queens would prefer their leaders to transact business with the farmer cooperative/s to avoid information asymmetry problems. However the association would not rush into any contract with the farmer cooperative until cooperative/s performance is satisfactory.

In conclusion, it can be said that the farmers have a motivation to join farmer cooperatives because of their market situation, farmers' value of farmer cooperative/s as a means to bringing farmers together for united actions, and the anticipated benefits from farmer cooperatives. It can also be said that market queens are likely to trade with farmer cooperative/s because of their market situation dealing with individual farmers, their positive perceptions of farmer cooperatives and the positive influence farmer cooperative/s could have on their trade.

However the performance of the three cooperatives gives room for concern as to whether a tomato farmers' cooperative in the Upper East Region can meet the expectations of farmers and the market queens in the tomato trade.

6.2 Recommendations

For the Ministry of Food and Agriculture through its regional and municipal offices to initiate the formation of successful cooperative/s in the Bolgatanga Municipality and the region at large the following recommendations will contribute to that.

1. **Cooperative Education:** from the research it was realized that not many of the farmers knew farmers' cooperatives to perform marketing oriented services, i.e. providing business oriented services to their members. There is therefore the need for the ministry through the regional and municipal offices in collaboration with the department of cooperatives, to embark on intensive education or sensitization programmes on farmers' cooperatives. This can be done through various cost effective media like radios, and community radio stations available for extension services in the municipality and the region. This could be

done through special radio programmes dedicated to cooperative education on special days and times in the day that farmers will be opportune to listen to. It is expected that through the radio programmes farmers would get to learn more about the activities of farmers' cooperatives.

2. **Production Site Groups:** in order to maintain internal cohesion among farmers, the ministry should facilitate farmers organise into groups per production site with their elected leaders. And even where a production site has more members than necessary to ensure internal cohesion, they should be divided if necessary to ensure group's cohesion.
3. **Cooperative Management Training:** To ensure that the members of the farmer groups at the production sites are competent enough to take up leadership positions, the ministry should organise trainings for interested members and leaders on leadership roles and responsibilities, record keeping, Cooperative principles and management and basic accounting.
4. **Long Term Perspective:** the ministry in collaboration with Trade Aid and BUSAC should facilitate and guide the groups to come up with their own mission, vision and objectives that are business and market focused. Draft a strategic plan or business plan and a financial plan for the groups.
5. **Cooperative Structure:** the groups operating as individual entities may not have the numbers to increase supply base, enjoy scale economies, collective marketing, increase financial status and bargaining power. These groups per production sites can be facilitated by the ministry through various workshops in collaborations with other NGOs to bring the groups under one umbrella, the mother cooperative to oversee the marketing and stakeholder collaborations aspects. That is, a two level cooperative structure with leaders of the various production sites being elected to take up supporting management roles together with paid professional manager.
6. **Relationship with Stakeholders:** in order to ensure that the two level cooperative have relationship with key stakeholders, the ministry in collaboration with other value chain development NGOs should link the cooperative through various workshops and seminars to GNTTTA, financial institutions (Apex Bank), research stations, Northern Rural Growth Programme, and other stakeholders interested in the development of the tomato value chain. They could even work towards the establishment of a tomato value chain steering committee.

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APPENDICES

Appendix 1: Questionnaire for Members Cooperatives Assessment

Questionnaire /statements

You can give a score ranging from 1 to 4. A score '1' means: I totally disagree with the statement. A score '4' means: I fully agree with the statement. The scores 2 and 3 are in between.

Below, you'll find a list of statements. For every statement, please make up your mind and determine to what extend you disagree or agree with the statement. Please give your opinion on the statement by asking yourself: "Is this statement true or not true? " And: To what extent is this true or not true? "

Please clearly indicate the scores you give (circle the chosen scores). Please answer all statements.

1 = Strongly Disagree. 2 = Disagree. 3 = Agree 4 = Strongly Agree NI= No Idea

NO	STATEMENT	SCORE				
1	**Membership Base**					
1.1	The conditions for adhering to our farmers' cooperative are clearly defined	1	2	3	4	**NI**
1.2	I am totally aware of the objectives and the planning of our farmers' cooperative	1	2	3	4	**NI**
1.3	The objectives of the cooperative are shared with most members	1	2	3	4	**NI**
1.4	Membership is opened to all farmers	1	2	3	4	**NI**
1.5	I know that we have a member register that is up-to-date	1	2	3	4	**NI**
1.6	Most members regularly pay their membership fees	1	2	3	4	**NI**
1.7	Most members actively participate in the activities of our farmers' cooperative	1	2	3	4	**NI**
No	**Statement**					
2	**Governance, Leadership and Internal Democracy**					
2.1	The internal regulations of our farmers' cooperative are documented	1	2	3	4	**NI**
2.2	The internal regulations of our farmers' cooperatives are made known to all members	1	2	3	4	**NI**
2.3	The governing board of our farmers cooperatives has been democratically and transparently elected	1	2	3	4	**NI**
2.4	The statutory bodies of our farmers' cooperatives function according to their mandates	1	2	3	4	**NI**
2.5	The duration of the mandate of a leadership position is well defined	1	2	3	4	**NI**
2.6	Internal communication within our farmers cooperatives is well organized: members are well informed about whatever is happening	1	2	3	4	**NI**
2.7	Women and youth are sufficiently represented in the elected bodies of our farmers association	1	2	3	4	**NI**
2.8	Collaboration between members is good	1	2	3	4	**NI**
2.9	During meetings all participants share their point of view	1	2	3	4	**NI**

2.10	The frequency of meetings to discuss our progress and problems is good	1	2	3	4	**NI**
2.11	Every member in our farmers cooperatives has the same decision rights	1	2	3	4	**NI**
2.12	Our farmers cooperatives is very good in problem solving	1	2	3	4	**NI**
2.13	Overall, I am very happy with the objectives and the planning of our farmers' cooperatives	1	2	3	4	**NI**
No	**Statement**					
3	**Management of Financial Resources**					
3.1	Our farmers cooperatives functions on the basis of the financial contributions of the members.	1	2	3	4	**NI**
3.2	Our farmers' cooperatives can function well without outside financial support	1	2	3	4	**NI**
	The cooperative has other sources of income besides members' monthly contributions.	1	2	3	4	**NI**
3.3	We have a committee that controls how expenditures have been done and how the financial books are kept	1	2	3	4	**NI**
3.4	When the farmers cooperatives needs to buy something, the procedures to do so are transparent	1	2	3	4	**NI**
3.5	Every year, the board or the treasurer explains how resources and income of the farmers' cooperatives have been used	1	2	3	4	**NI**
3.6	Overall, I am very happy how the financial resources are managed by the cooperative	1	2	3	4	**NI**
No	**Statement**					
4	**Collaboration and Networks**					
4.1	In the past, we have had exchange visits with other farmers' cooperatives, to observe how other farmers cooperatives are functioning and working.	1	2	3	4	**NI**
4.2	In the past years, our farmers cooperatives has approached institutes, NGO's, research centers and extension workers to find answers to the questions we had	1	2	3	4	**NI**
4.3	Our farmers cooperatives had written project proposals with the aim to get support and funding for our activities	1	2	3	4	**NI**
4.4	Our farmers cooperatives has formal agreements with banks facilitating members' access to credit	1	2	3	4	**NI**
4.5	Our farmers cooperatives has established good agreements with input providers, to buy inputs at reduced prices	1	2	3	4	**NI**
4.6	Our farmers cooperatives has established good agreements with traders to buy our tomatoes	1	2	3	4	**NI**
4.7	Our farmers cooperatives has established good agreements with MOFA extension staff for extension services like collective field demonstrations	1	2	3	4	**NI**
4.8	Our farmers cooperatives actively participates in meetings of other farmers association	1	2	3	4	**NI**
5	**Stakeholder Collaboration**					
5.1	Our input supplier gives us advice on how best to use the herbicides,	1	2	3	4	**NI**

	fertilizers, insecticides and other input supplies					
5.2	Our farmers' cooperatives discusses with district authorities for supporting the tomato chain	1	2	3	4	**NI**
5.3	We discuss with chain actors about what we can do for each other	1	2	3	4	**NI**
5.4	We discuss with chain supporter about what they could do for us	1	2	3	4	**NI**
5.5	If there is a problem, we openly discuss matters with the tomato traders and processors	1	2	3	4	**NI**
5.6	Within the district, different stakeholders are discussing how best to develop the tomato value chain	1	2	3	4	**NI**
No	**Statement**					
6	**Service Provision to Members**					
6.1	The services of the farmers' cooperatives respond to my needs as a tomato farmer	1	2	3	4	**NI**
6.2	I think our farmers' cooperatives is efficient in providing information to the members	1	2	3	4	**NI**
6.3	I am benefiting from trainings organized by the farmers' cooperatives that make me a more professional tomato farmer	1	2	3	4	**NI**
6.4	Thanks to the farmers' cooperatives I now use inputs (such as improved tomato seeds, required fertilizer, right amounts of pesticides), which I otherwise would not have had	1	2	3	4	**NI**
6.5	Through the cooperative I have no problems getting tractors to plough my farms.	1	2	3	4	**NI**
6.6	I can get credit at the bank to finance production costs through the cooperative	1	2	3	4	**NI**
6.7	Our farmers' cooperatives has the habit of asking the members if they are happy with the services that are provided	1	2	3	4	**NI**
6.7	I am very aware of the opportunities that we as tomato farmers have to be joined in a farmers' cooperatives	1	2	3	4	**NI**
6.8	I am very happy with the way the cooperative helps me sell my tomatoes	1	2	3	4	**NI**
No	**Statement**					
7	**Farm Management and Tomato Production**					
7.1	I have very good knowledge on tomato farming	1	2	3	4	**NI**
7.2	The production of my tomato is high and is how I desired	1	2	3	4	**NI**
7.3	I am able to plant good and healthy tomatoes on my farm	1	2	3	4	**NI**
7.4	I am very good in recognizing disease symptoms in tomato plants	1	2	3	4	**NI**
7.5	I can apply insecticides when I detect symptoms	1	2	3	4	**NI**
No	**Statement**					
8	**Entrepreneurial Skills**					
8.1	Management are often trained to have the competencies and skills that	1	2	3	4	**NI**

	are needed to perform their tasks.					
8.2	Our farmers cooperatives has diversified into other activities in relation to tomato products	1	2	3	4	**NI**
8.3	Our farmers' cooperatives has diversified into other activities which are not related to tomato production.	1	2	3	4	**NI**
8.4	Our farmers cooperatives is very good in identifying market opportunities	1	2	3	4	**NI**
8.5	Our farmers cooperatives is in general able to identify risks and opportunities very well	1	2	3	4	**NI**
8.6	When our farmers cooperatives takes risks, we first analyze the situation properly and think of possible results and things that can go wrong	1	2	3	4	**NI**
No	**Statement**					
9	**Costs And Marketing**					
9.1	I am always able to sell my tomatoes	1	2	3	4	**NI**
9.2	The farmers' cooperatives provides enough information about where to sell the tomatoes	1	2	3	4	**NI**
9.3	I know tomato prices at different markets at different times in Ghana	1	2	3	4	**NI**
9.4	In case there is little market to sell the tomatoes, our farmers' cooperatives searches for new markets	1	2	3	4	**NI**
9.5	Even if there is market for the tomatoes, the farmers' cooperatives is still active in searching for markets	1	2	3	4	**NI**
9.6	I am happy with the price I get for my tomatoes	1	2	3	4	**NI**
9.7	I am happy with the procedure of how I get paid for my tomatoes	1	2	3	4	**NI**
9.8	Every season, I calculate the costs and benefits of the tomatoes production	1	2	3	4	**NI**
9.9	My production costs are covered by the sales of tomatoes	1	2	3	4	**NI**

Appendix 2: Questionnaire for Non Member Farmers Survey

QUESTIONNAIRE FOR NON MEMBERS TOMATO FARMERS

Basic Information

1. Name.......................................
2. Gender..............................
3. Age……………………………
4. Educational background?
   (a) Non (b) Primary (c) JHS (d) SHS (e)Tertiary
5. What acreage of tomatoes do you often cultivate?......................................
6. How long (years) have you being farming tomatoes?..
7. What are your other sources of income besides tomato farming?...
8. What is tomatoes contribution to your total household income? (a) High (b) Average (c) Low (d) Nothing at all

Marketing

9. Who are your buyers of the tomatoes?...
10. How do you find the buyers for your tomatoes?...
11. What type of selling agreement do you make with your buyer? (a) Written contract (b) Verbal agreements (c) none (d) Others, specify ………………………………..
12. What is your payment method? (a) Cash on delivery (b) Deposit (c) 100% cash in advance (d) Credit.
13. What are the issues involved in your marketing of tomatoes in terms of (a) volumes, (b) price, (c) logistics, (d) quality and (e) Relationships with buyers
    (a)……………………………………………………………………………………………………
    (b)……………………………………………………………………………………………………
    (c)……………………………………………………………………………………………………
    (d)……………………………………………………………………………………………………
    (e)……………………………………………………………………………………………………
14. Are you happy with your current marketing situation? Yes/No. Why:
    ………………………………………………………………………………………………………

Perceptions

15. Do you know cooperatives? Yes/No. If yes answer question 15 to 17
16. What do you know about farmers' cooperative?...
    ………………………………………………………………………………………………………
17. Have you ever dealt with a farmer cooperative or any cooperative? Yes/No. Why?
    ………………………………………………………………………………………………………
18. What is your impression about them? Good or Bad. Explain:..
    ....

Participation in Cooperatives

19. What is your opinion about the formation/joining of tomatoes farmers' cooperatives in Bolga?
    ……………………………………………………………………………………………………
20. Would you join such a cooperative/s? Yes/No. Why?...
21. What would make you join or not join the cooperative in Bolga?..
    ………………………………………………………………………………………………………
22. What do you think would make the Cooperative effective?...
    ……………………………………………………………………………………………………
23. Do you think the cooperative can help with the issues raised in question 12? Yes/No.
24. If yes how, if no why?..
    ………………………………………………………………………………………………………

THANK YOU FOR YOUR TIME

Appendix 3: Questionnaire for Spokesperson of GNTTTA

QUESTIONNAIRE FOR GNTTTA SPOKESPERSON

Basic information

Name of Organisation*:* ……………………………………………….

Contact Person:……………………………………………………….

Year Started:……………………………………………………………

Marketing

1. From who do the market queens buy the tomatoes for the trade?……………………………………..

   ……

2. How do they find the suppliers to get tomatoes for their trade? ……………………………………….

   ……..

3. What are the problems they encounter in the trade in terms of (a) volumes, (b) prices, (c) logistics, (d) quality of tomatoes and (e) Relationships with suppliers/farmers?

   ………

Perception of Farmers' Cooperatives

4. Do you know cooperatives? Yes/No. If yes answer question 9 to 11
5. What do you know about cooperatives? ……………………………………………………………………………..
6. Have you ever dealt with a farmer cooperative or any cooperative in your trade? *Yes/No*. Why?

………

7. What is your general impression about cooperatives? Good or Bad. Explain:

………

Collaborating with Cooperatives

8. What is your opinion about the formation of tomato farmers Cooperatives in Bolga?

……….

9. Would you like to trade with the Tomato Cooperative/s for the supply of tomatoes? Yes/No. Why:

……

10. What would make you not trade with the tomato Cooperative/s?

………

11. Do you think the cooperative/s can help reduce some of the problems in your trade? Yes/No

……….

12. If yes how and if no why?...

13. How do you want to deal with the cooperative/s? As individual traders or Tomato traders Union. Why?...
14. What form of relationship would you prefer with the cooperatives? (a) Written contracts (b) verbal contracts based on trust and transparency (c) spot market relations. Why?.....................................

……….

Appendix 4: Questionnaire for Cooperatives Assessment

Production						
No	**Concept**	**Indicator**	**Criteria**	**Max. Score**	**Comments/Observations**	**Score**
1	**Membership Base**			**15**		
1.1	Active Membership	% of active members out of total members	Percentage (%) * 5 :	5		
1.2	Members increment	% of members increment from start to now	Percentage (%) * 5	5		
1.3	Actions to increase membership	The actions to increase (active) membership are the appropriate and have resulted in increments of active membership.	Range: Def yes, 5 Def no=0	5		
2	**The Product**			**30**		
2.1	Production Volume	Productivity per hectare is growing	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5		
2.2	Average Price paid to producers	Average price paid to members increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5		
2.3	Quality of Product.	Size, taste, homogeneity in variety, weight	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5		
2.4	Quality Management	A good Quality Management System (QMS) is in place and guarantees good quality tomatoes.	No QMS=0 points; QMS in place, but not able to measure improvement=3 points; QMS in place, constant monitoring of quality and measurement of improvement= 5 points	5		
2.5	Productivity	Average production per hectare compared to averages in the area (municipality, region).	More=5, same=3 less:0	5		
2.6	Environmental measures	The organization has a written plan and implements measures and techniques to minimize the impact of its operations on the environment.	Range: Def yes, 5 Def no=0	5		
3	**Services**			**15**		
3.1	Additional services offered to producers	Provision of credit, inputs, market information, tractor services, technical trainings.	More=5, Some=3, None=0	5		

3.2	Access to the services	% of members accessing these services.	Percentage (%) * 5	5		
3.3	Quality of Services Evaluation	Internal clients (producers) are satisfied with the services provided by the organization (quality and range).	Range: Completely satisfied = 5 points Definitely not satisfied= 0 points	5		
			Maximum score	**60**	**Total score obtained**	

Internal Organisation

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Staff capacity**			**25**		
1.1	Management Staff (office)	There is sufficient management staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5		
1.2	Technical Staff (field)	There is sufficient technical staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5		
1.3	Technical staff coverage	The needs of all producers in terms of Field Technical Assistance are covered.	Range: Definitely Yes=5 Definitely No=0	5		
1.4	Organizational (operational) structure evaluation	Does the current organizational structure works?	Range: Definitely Yes=5 Definitely No=0	5		
1.5	Governance structure evaluation	Is the current governance structure sufficient and does it perform well?	Range: Definitely Yes=5 Definitely No=0	5		
2	**Financial management**			**35**		
2.1	Trade Finance Needs	Percentage of financial needs covered.	Percentage (%) * 5	5		
2.2	Access to local financial resources	The organization has access to local bank/financial institutions to cover their financial needs.	Yes=5, No= 0	5		
2.3	Organized and up-to date administrative processes, audited statements	Financial information of the last three years is available and audited	Yes=5, No=0	5		
2.4	Financial Performance: solvency	Good score on solvency ratio, above 30%	Above 30%=5, less than 30% is 0	5		

2.5	Financial performance: liquidity ratio	Good score on liquidity ratio, every month is above 1.	Yes=5, No= 0	5		
2.6	Financial Independency between Departments	Each organ, committee, department operates with its own budget and/or financial resources.	Yes=5, No= 0	5		
2.7	Funding Sources	The organisation's dependency on sources of grant funding.	% of operations costs covered by donations 1/(%*5)	5		
3	**Long-term perspective**			**15**		
3.1	Vision and Mission	There is a written declaration of the organization's vision and mission.	Yes=5, No= 0	5		
3.2	Long term strategy	There is a Long term strategic plan	Yes=5, No=0	5		
2.7	Strategic long term financial vision.	The organization has a clear vision on building capital and becoming financially self-sufficient in the long term.	Range: Definitely Yes=5 Definitely No=0	5		
			Maximum score	**75**	**Total score obtained**	

MARKET

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Sales**			**25**		
1.1	Average sales price	Average sales price received for tomatoes sold increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5		
1.2	Marketing activities	The organization efficiently executes marketing activities to broaden the client portfolio.	Range: Definitely Yes=5 Definitely No=0	5		
1.3	Flow Harvest - Sales	Time from harvest to sales is the appropriate and allows the organization to function properly and fulfill obligations to internal and external clients.	Range: Definitely Yes=5 Definitely No=0	5		

1.4	Diversified product offer	The organizations offers a sufficiently diversified product range (tomato qualities and/or different products) so that the organization is not overly dependent on one single product.	Range: Definitely Yes=5 Definitely No=0	5		
1.5	Diversified client base	The organizations has a sufficiently diversified client portfolio so that they are not overly dependent on a few clients.	Range: Definitely Yes=5 Definitely No=0	5		
2	**Relations with stakeholders**			**25**		
2.1	Producers	What is the relationship of the organisation with each of the parties? To be evaluated in terms of constructive cooperation, transparency, trust, mutual respect, win-win, long term.	Range (per category): Very strong=5 Improvements needed urgently=0	5		
2.2	Clients			5		
2.3	Financers,			5		
2.4	Supporters (NGO's)			5		
2.5	Community			5		
			Maximum score	**50**	**Total score obtained**	

Appendix 5: Transcript of TOPAN Performance Assessment

Production						
No	**Concept**	**Indicator**	**Criteria**	**Max. Score**	**Comments/Observations**	**Score**
1	**Membership Base**			**15**		**11**
1.1	Active Membership	% of active members out of total members	Percentage (%) * 5 :	5	All 25 members are active	5
1.2	Members increment	% of members increment from start to now	Percentage (%) * 5	5	New members have been transferred to other cooperatives in the area for easy management of group	3
1.3	Actions to increase membership	The actions to increase (active) membership are the appropriate and have resulted in increments of active membership.	Range: Def yes, 5 Def no=0	5		3
2	**The Product**			**30**		**12**
2.1	Production Volume	Productivity per hectare is growing	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Productivity per acre is reducing due to nematodes infestation each year	3
2.2	Average Price paid to producers	Average price paid to members increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	The cooperative does not sell members produces for them but help to negotiate prices sometimes	1
2.3	Quality of Product.	Size, taste, homogeneity in variety, weight	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Most members use the same variety and quality remains the same except disease infestation	3
2.4	Quality Management	A good Quality Management System (QMS) is in place and guarantees good quality tomatoes.	No QMS=0 points; QMS in place, but not able to measure improvement=3 points; QMS in place, constant monitoring of quality and measurement of improvement= 5 points	5	There are no quality management systems in use anywhere in the region yet	0
2.5	Productivity	Average production per hectare compared to averages in the area (municipality, region).	More=5, same=3 less:0	5	If not affected by diseases productivity is almost the same	3
2.6	Environmental measures	The organization has a written plan and implements measures and techniques to minimize the impact of its operations on the environment.	Range: Def yes, 5 Def no=0	5	Though no written plans, they are aware of the effects of their operations on the environment due to collaboration with an NGO,	2.0

					Trade Aid.	
3	**Services**			**15**		**11**
3.1	Additional services offered to producers	Provision of credit, inputs, market information, tractor services, technical trainings.	More=5, Some=3, None=0	5	Help members' access inputs, trainings from ministry of agriculture and tractor services.	3.0
3.2	Access to the services	% of members accessing these services.	Percentage (%) * 5	5		5.0
3.3	Quality of Services Evaluation	Internal clients (producers) are satisfied with the services provided by the organization (quality and range).	Range: Completely satisfied = 5 points Definitely not satisfied= 0 points	5	members wish for more services like credit, and marketing of produce	3.0
			Maximum score	**60**	**Total score obtained**	**34**

Internal Organisation

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Staff capacity**			**25**		**11**
1.1	Management Staff (office)	There is sufficient management staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	Five executives with two trustees, have been trained once or twice by BUSAC and Trade Aid an NGO	4
1.2	Technical Staff (field)	There is sufficient technical staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.3	Technical staff coverage	The needs of all producers in terms of Field Technical Assistance are covered.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.4	Organizational (operational) structure evaluation	Does the current organizational structure works?	Range: Definitely Yes=5 Definitely No=0	5	Though it seems to work for them there is no Board of Directors	3
1.5	Governance structure evaluation	Is the current governance structure sufficient and does it perform well?	Range: Definitely Yes=5 Definitely No=0	5	No complains so far but improvements are necessary	4
2	**Financial management**			**35**		**9.4**
2.1	Trade Finance Needs	Percentage of financial needs covered.	Percentage (%) * 5	5	average annual income from contribution of GH¢750.00 and a budget for annual production of GH¢10,000.00 (€1=GH¢2.50)	0.4

2.2	Access to local financial resources	The organization has access to local bank/financial institutions to cover their financial needs.	Yes=5, No= 0	5	Have ever been successful in securing a loan facility to cover financial needs from Agriculture Development Bank	3
2.3	Organized and up-to date administrative processes, audited statements	Financial information of the last three years is available and audited	Yes=5, No=0	5	Financial information available is not audited.	3
2.4	Financial Performance: solvency	Good score on solvency ratio, above 30%	Above 30%=5, less than 30% is 0	5	A solvency ratio of 7.5% (GH¢750/GH¢10,000)	0
2.5	Financial performance: liquidity ratio	Good score on liquidity ratio, every month is above 1.	Yes=5, No= 0	5	Monthly income of GH¢62.50 not significant. However only meetings are held in some months	2
2.6	Financial Independency between Departments	Each organ, committee, department operates with its own budget and/or financial resources.	Yes=5, No= 0	5	There is only one organ, the executives and operations are not based on budgets.	0
2.7	Funding Sources	The organisation's dependency on sources of grant funding.	% of operations costs covered by donations 1/(%*5)	5	92.5% operation costs to be covered by donations but there is no access to such sources (commission not calculated)	1
3	**Long-term perspective**			**15**		**8**
3.1	Vision and Mission	There is a written declaration of the organization's vision and mission.	Yes=5, No= 0	5	Main aim and objectives are written in their constitution	4
3.2	Long term strategy	There is a Long term strategic plan	Yes=5, No=0	5	No written down strategies but verbally expressed ones	2
2.7	Strategic long term financial vision.	The organization has a clear vision on building capital and becoming financially self-sufficient in the long term.	Range: Definitely Yes=5 Definitely No=0	5	There is none of such strategies to be financially self-sufficient except member contributions and commission from rice processing mill belonging to Trade Aid but operated by them	2
			Maximum score	**75**	**Total score obtained**	**28.4**
						38%

MARKET

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Sales**			**25**		**10**
1.1	Average sales price	Average sales price received for tomatoes sold increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Cooperative does not sell produce for members	2
1.2	Marketing activities	The organization efficiently executes marketing activities to broaden the client portfolio.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce but the executives ensures that members get crates from traders to harvest for sale when they come to buy	2
1.3	Flow Harvest - Sales	Time from harvest to sales is the appropriate and allows the organization to function properly and fulfill obligations to internal and external clients.	Range: Definitely Yes=5 Definitely No=0	5	Because the Coop is not directly marketing the produce, members sometimes take days after harvest to sell due to lack of market	3
1.4	Diversified product offer	The organizations offers a sufficiently diversified product range (tomato qualities and/or different products) so that the organization is not overly dependent on one single product.	Range: Definitely Yes=5 Definitely No=0	5	Members are also into rice production and the Cooperative operates a rice processing mill belonging to Trade Aid and obtain commission for the operation	3
1.5	Diversified client base	The organizations has a sufficiently diversified client portfolio so that they are not overly dependent on a few clients.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce, and members are overly dependent on only few unreliable clients	0
2	**Relations with stakeholders**			**25**		**17**
2.1	Producers	What is the relationship of the organisation with each of the parties? To be evaluated in terms of constructive cooperation, transparency, trust, mutual respect, win-win, long term.	Range (per category): Very strong=5 Improvements needed urgently=0	5	The Cooperative has a good relation with its members	4
2.2	Clients			5	No long term relationship with clients	2
2.3	Financers,			5		3
2.4	Supporters (NGO's)			5	A strong relation with Trade Aid an NGO	4
2.5	Community			5	Good relations with community	4
			Maximum score	**50**	**Total score obtained**	**27**

Appendix 6: Transcript of BONACOFSO Performance Assessment

Production

No	Concept	Indicator	Criteria	Max. Score	Comments/Observations	Score
1	**Membership Base**			**15**		**7.1**
1.1	Active Membership	% of active members out of total members	Percentage (%) * 5 : (20/29) *5	5		3.5
1.2	Members Increment	% of members increment from start to now	Percentage (%) * 5 : ((29-22)/22) *5	5		1.6
1.3	Actions to increase membership	The actions to increase (active) membership are the appropriate and have resulted in increments of active membership.	Range: Def yes, 5 Def no=0	5		2.0
2	**The Product**			**30**		**10**
2.1	Production Volume	Productivity per hectare is growing	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Productivity per acre is reducing due to nematodes infestation each year	2
2.2	Average Price paid to producers	Average price paid to members increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	The cooperative does not sell members produces for them but help to negotiate prices sometimes	1
2.3	Quality of Product.	Size, taste, homogeneity in variety, weight	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Most members use the same variety and quality remains the same except disease infestation	3
2.4	Quality Management	A good Quality Management System (QMS) is in place and guarantees good quality tomatoes.	No QMS=0 points; QMS in place, but not able to measure improvement=3 points; QMS in place, constant monitoring of quality and measurement of improvement= 5 points	5	There are no quality management systems in use anywhere in the region yet	0
2.5	Productivity	Average production per hectare compared to averages in the area (municipality, region).	More=5, same=3 less: 0	5	If not affected by diseases productivity is almost the same	3
2.6	Environmental measures	The organization has a written plan and implements measures and techniques to minimize the impact of its operations on the environment.	Range: Def yes, 5 Def no=0	5	Though no written plans, they have been sensitized on the effects of their operations on the environment by NGOs and extension officers	1.0
3	**Services**			**15**		**7.5**

3.1	Additional services offered to producers	Provision of credit, inputs, market information, tractor services, technical trainings.	More=5, more than two =3, None=0	5	Organises technical trainings for members in collaboration with extension officers and NGOs	2
3.2	Access to the services	% of members accessing these services.	Percentage (%) * 5 : 20/29*5	5		3.5
3.3	Quality of Services Evaluation	Internal clients (producers) are satisfied with the services provided by the organization (quality and range).	Range: Completely satisfied = 5 points Definitely not satisfied= 0 points	5	Members wish to access more services besides the technical trainings which are organised ones a while	2
			Maximum score	**60**	**Total score obtained**	**24.6**

Internal organization

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Staff capacity**			**25**		**11**
1.1	Management Staff (office)	There is sufficient management staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	Five executives with two trustees, have been trained once or twice by Trade Aid	4
1.2	Technical Staff (field)	There is sufficient technical staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.3	Technical staff coverage	The needs of all producers in terms of Field Technical Assistance are covered.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.4	Organizational (operational) structure evaluation	Does the current organizational structure works?	Range: Definitely Yes=5 Definitely No=0	5	Though it seems to work for them there is no Board of Directors	3
1.5	Governance structure evaluation	Is the current governance structure sufficient and does it perform well?	Range: Definitely Yes=5 Definitely No=0	5		4
2	**Financial management**			**35**		**5.4**
2.1	Trade Finance Needs	Percentage of financial needs covered.	Percentage (%) * 5	5	average annual income of GH¢600.00 and a budget for annual production of GH¢8,000.00 (€1=GH¢2.50)	0.4
2.2	Access to local financial resources	The organization has access to local bank/financial institutions to cover their financial needs.	Yes=5, No= 0	5	Have never been successful in securing loan facilities to cover financial needs	0

2.3	Organized and up-to date administrative processes, audited statements	Financial information of the last three years is available and audited	Yes=5, No=0	5	Financial information available is not official and also not audited.	2
2.4	Financial Performance: solvency	Good score on solvency ratio, above 30%	Above 30%=5, less than 30% is 0	5	A solvency ratio of 7.5% (GH¢600/GH¢8,000)	0
2.5	Financial performance: liquidity ratio	Good score on liquidity ratio, every month is above 1.	Yes=5, No= 0	5	Monthly income of GH¢50.00 not significant. However only meetings are held in some months	2
2.6	Financial Independency between Departments	Each organ, committee, department operates with its own budget and/or financial resources.	Yes=5, No= 0	5	There is only one organ, the executives and operations are not based on budgets.	0
2.7	Funding Sources	The organisation's dependency on sources of grant funding.	% of operations costs covered by donations 1/(%*5)	5	92.5% operation costs to be covered by donations but there is no access to such sources	1
3	**Long-term perspective**			**15**		**5**
3.1	Vision and Mission	There is a written declaration of the organization's vision and mission.	Yes=5, No= 0	5	Main aim and objectives are written in their constitution	4
3.2	Long term strategy	There is a Long term strategic plan	Yes=5, No=0	5	No written down strategies but verbally expressed ones	1
2.7	Strategic long term financial vision.	The organization has a clear vision on building capital and becoming financially self-sufficient in the long term.	Range: Definitely Yes=5 Definitely No=0	5	There is none of such strategies to be financially self-sufficient except member contributions	0
			Maximum score	**75**	**Total score obtained**	**21.4**

Market

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Sales**			**25**		**8**
1.1	Average sales price	Average sales price received for tomatoes sold increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Cooperative does not sell produce for members	2
1.2	Marketing activities	The organization efficiently executes marketing activities to broaden the client portfolio.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce but the executives ensures that members get crates from traders to harvest	2

					for sale	
1.3	Flow Harvest - Sales	Time from harvest to sales is the appropriate and allows the organization to function properly and fulfill obligations to internal and external clients.	Range: Definitely Yes=5 Definitely No=0	5	Because the Coop is not directly marketing the produce, members sometimes take days after harvest to sell due to lack of market	2
1.4	Diversified product offer	The organizations offers a sufficiently diversified product range (tomato qualities and/or different products) so that the organization is not overly dependent on one single product.	Range: Definitely Yes=5 Definitely No=0	5	Members of the Cooperative are also into rice production individually	2
1.5	Diversified client base	The organizations has a sufficiently diversified client portfolio so that they are not overly dependent on a few clients.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce, and members are overly dependent on only few unreliable clients	0
2	**Relations with stakeholders**			**25**		**12.5**
2.1	Producers	What is the relationship of the organisation with each of the parties? To be evaluated in terms of constructive cooperation, transparency, trust, mutual respect, win-win, long term.	Range (per category): Very strong=5 Improvements needed urgently=0	5	The Coop has a good relation with its members	4
2.2	Clients			5	No relationship with clients	1
2.3	Financers,			5		1
2.4	Supporters (NGO's)			5	Not a strong relation with NGO, Trade Aid	2.5
2.5	Community			5	Good relations with community	4
			Maximum score	**50**	**Total score obtained**	**20.5**

Appendix 7: Transcript of Atolenenga Performance Assessment

No	Concept	Indicator	Criteria	Max. Score	Comments/Observations	Score
1	**Membership Base**			**15**		**6**
1.1	Active Membership	% of active members out of total members	Percentage (%) * 5 : (17/17) *5	5		5.0
1.2	Members Increment	% of members increment from start to now	Percentage (%) * 5 : ((25-17)/25) *5	5	Members have reduce from 25 to 17	0.0
1.3	Actions to increase membership	The actions to increase (active) membership are the appropriate and have resulted in increments of active membership.	Range: Def yes, 5 Def no=0	5	though membership is opened to all farmers they have not increase	1.0
2	**The Product**			**30**		**10**
2.1	Production Volume	Productivity per hectare is growing	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Productivity per acre is reducing due to nematodes infestation each year	2
2.2	Average Price paid to producers	Average price paid to members increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	The cooperative does not sell members produces for them but help to negotiate prices sometimes	1
2.3	Quality of Product.	Size, taste, homogeneity in variety, weight	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Same varieties are used by members	3
2.4	Quality Management	A good Quality Management System (QMS) is in place and guarantees good quality tomatoes.	No QMS=0 points; QMS in place, but not able to measure improvement=3 points; QMS in place, constant monitoring of quality and measurement of improvement= 5 points	5	There are no quality management systems in use anywhere in the region yet	0
2.5	Productivity	Average production per hectare compared to averages in the area (municipality, region).	More=5, same=3 less: 0	5	If not affected by diseases productivity is almost the same	3
2.6	Environmental measures	The organization has a written plan and implements measures and techniques to minimize the impact of its operations on the environment.	Range: Def yes, 5 Def no=0	5	Plans for environmental issues have not been written down but are verbally expressed	1.0
3	**Services**			**15**		**9**
3.1	Additional services offered to producers	Provision of credit, inputs, market information, tractor services, technical trainings.	More=5, more than two =3, None=0	5	Organises technical trainings for members in collaboration with extension	2.5

					officers and NGOs. Gets tractor services for members	
3.2	Access to the services	% of members accessing these services.	Percentage (%) * 5	5	Access to services is opened to all but some members access tractor services on their own	4.5
3.3	Quality of Services Evaluation	Internal clients (producers) are satisfied with the services provided by the organization (quality and range).	Range: Completely satisfied = 5 points Definitely not satisfied= 0 points	5	Members wish to access more services besides the technical trainings which are organised ones a while	2
			Maximum score	**60**	**Total score obtained**	**25**

Internal organization

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Staff capacity**			**25**		**9**
1.1	Management Staff (office)	There is sufficient management staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	Four executives and have been trained once or twice by BUSAC	3
1.2	Technical Staff (field)	There is sufficient technical staff and they are well trained for their tasks and responsibilities.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.3	Technical staff coverage	The needs of all producers in terms of Field Technical Assistance are covered.	Range: Definitely Yes=5 Definitely No=0	5	No technical staff	0
1.4	Organizational (operational) structure evaluation	Does the current organizational structure works?	Range: Definitely Yes=5 Definitely No=0	5	Though it seems to work for them there is no Board of Directors	3
1.5	Governance structure evaluation	Is the current governance structure sufficient and does it perform well?	Range: Definitely Yes=5 Definitely No=0	5		3
2	**Financial management**			**35**		**5.4**
2.1	Trade Finance Needs	Percentage of financial needs covered.	Percentage (%) * 5	5	Average annual income of GH¢510.00 and estimated budget for annual production of GH¢6,800.00 (€1=GH¢2.50)	0.4
2.2	Access to local financial resources	The organization has access to local bank/financial institutions to cover their financial needs.	Yes=5, No= 0	5	Have never been successful in securing loan facilities to cover financial needs	0

2.3	Organized and up-to date administrative processes, audited statements	Financial information of the last three years is available and audited	Yes=5, No=0	5	Financial information available is not official and also not audited.	2
2.4	Financial Performance: solvency	Good score on solvency ratio, above 30%	Above 30%=5, less than 30% is 0	5	A solvency ratio of 7.5% (GH¢510/GH¢6,800)	0
2.5	Financial performance: liquidity ratio	Good score on liquidity ratio, every month is above 1.	Yes=5, No= 0	5	Monthly income of GH¢42.50 not significant. However only meetings are held in some months	2
2.6	Financial Independency between Departments	Each organ, committee, department operates with its own budget and/or financial resources.	Yes=5, No= 0	5	There is only one organ, the executives and operations are not based on budgets.	0
2.7	Funding Sources	The organisation's dependency on sources of grant funding.	% of operations costs covered by donations 1/(%*5)	5	92.5% operation costs to be covered by donations but there is no access to such sources	1
3	**Long-term perspective**			**15**		**4**
3.1	Vision and Mission	There is a written declaration of the organization's vision and mission.	Yes=5, No= 0	5	Main aim and objectives are written in their constitution	4
3.2	Long term strategy	There is a Long term strategic plan	Yes=5, No=0	5	No written down strategies but verbally expressed ones	0
2.7	Strategic long term financial vision.	The organization has a clear vision on building capital and becoming financially self-sufficient in the long term.	Range: Definitely Yes=5 Definitely No=0	5	There is none of such strategies to be financially self-sufficient except member contributions	0
			Maximum score	**75**	**Total score obtained**	**18.4**

Market

No	Concept	Indicator	Criteria	Max. Score	Comments/ Observations	Score
1	**Sales**			**25**		**8**
1.1	Average sales price	Average sales price received for tomatoes sold increases	Increased: 5 points, remained the same: 3 points, lowered: 0 points.	5	Cooperative does not sell produce for members	2

1.2	Marketing activities	The organization efficiently executes marketing activities to broaden the client portfolio.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce but the executives ensures that members get crates from traders to harvest for sale when they come to buy	2
1.3	Flow Harvest - Sales	Time from harvest to sales is the appropriate and allows the organization to function properly and fulfill obligations to internal and external clients.	Range: Definitely Yes=5 Definitely No=0	5	Because the Coop is not directly marketing the produce, members sometimes take days after harvest to sell due to lack of market	2
1.4	Diversified product offer	The organizations offers a sufficiently diversified product range (tomato qualities and/or different products) so that the organization is not overly dependent on one single product.	Range: Definitely Yes=5 Definitely No=0	5	Not the cooperative but the individual members are into rice production	2
1.5	Diversified client base	The organizations has a sufficiently diversified client portfolio so that they are not overly dependent on a few clients.	Range: Definitely Yes=5 Definitely No=0	5	The cooperative does not sell members produce, and members are overly dependent on only few unreliable clients	0
2	**Relations with stakeholders**			**25**		**12.5**
2.1	Producers	What is the relationship of the organisation with each of the parties? To be evaluated in terms of constructive cooperation, transparency, trust, mutual respect, win-win, long term.	Range (per category): Very strong=5 Improvements needed urgently=0	5	The Coop has a good relation with its members	4
2.2	Clients			5	No relationship with clients	0
2.3	Financers,			5	Never access finance from any but have bank accounts	2
2.4	Supporters (NGO's)			5	Not a strong relation with NGO, Trade Aid	2.5
2.5	Community			5	Good relations with community	4
			Maximum score	**50**	**Total score obtained**	**20.5**

Appendix 8: Transcript of Members Assessment of Cooperatives

	TOPAN COOP							BONACOFSO COOP							ATOELENINGA COOP						
CATEGORY	**SCORE**					**MEAN**	**MEAN OF MEANS**	**SCORE**					**MEAN**	**MEAN OF MEANS**	**SCORE**					**MEAN**	**MEAN OF MEANS**
Membership Base	1	2	3	4	5			1	2	3	4	5			1	2	3	4	5		
1.1	4	3	3	4	4	3.6		3	4	4	4	3	3.6		4	4	4	4	4	4	
1.2	3	3	3	3	4	3.2		3	3	3	3	3	3		3	3	3	3	3	3	
1.3	3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
1.4	4	4	4	3	4	3.8		4	4	4	4	4	4		4	4	4	4	4	4	
1.5	3	4	3	3	4	3.4		4	4	3	3	4	3.6		4	3	3	3	3	3.2	
1.6	3	3	3	2	2	2.6		3	3	3	3	3	3		3	3	3	3	3	3	
1.7	3	3	4	3	3	3.2	3.2	3	3	3	3	3	3	3.3	3	3	3	3	3	3	3.3
Governance, Leadership And Internal Democracy																					
2.1	4	4	4	4	3	3.8		4	4	4	4	4	4		4	4	4	4	4	4	
2.2	4	3	3	3	4	3.4		3	3	3	3	3	3		3	3	3	3	3	3	
2.3	4	4	4	3	4	3.8		3	3	4	3	2	3		4	3	3	3	3	3.2	
2.4	3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
2.5	4	4	4	3	4	3.8		2	2	3	3	2	2.4		4	3	3	3	3	3.2	
2.6	3	3	4	3	4	3.4		3	3	3	3	3	3		4	3	3	3	3	3.2	
2.7	3	3	3	2	3	2.8		3	3	3	3	2	2.8		3	2	3	3	2	2.6	
2.8	3	3	3	3	3	3		3	3	4	3	3	3.2		3	3	3	3	3	3	
2.9	4	4	4	4	4	4		4	4	4	4	4	4		4	4	4	4	4	4	
2.10	3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
2.11	4	4	4	4	4	4		4	4	4	4	4	4		4	4	4	4	4	4	
2.12	3	3	3	3	3	3		2	3	3	3	2	2.6		3	3	3	3	3	3	
2.13	3	3	4	3	3	3.2	3.4	3	3	3	3	3	3	3.2	3	3	3	3	3	3	3.2
Management of Financial Resource																					
3.1	3	3	2	3	3	2.8		2	2	2	3	2	2.2		2	3	2	2	2	2.2	
3.2	2	3	1	2	3	2.2		2	2	2	2	2	2		2	2	2	1	2	1.8	
3.3	3	3	2	2	3	2.6		1	1	1	2	1	1.2		1	1	1	1	1	1	

3.4		2	3	2	2	3	2.4		3	3	3	3	3	3		1	2	3	1	2	1.8	
3.5		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
3.6		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
3.7		3	3	3	2	3	2.8	2.6	3	3	3	3	3	3	2.5	3	3	3	2	3	2.8	2.2
Collaboration & Networks																						
4.1		3	3	4	3	3	3.2		3	3	3	3	3	3		3	3	3	3	4	3.2	
4.2		3	3	4	4	3	3.4		3	3	3	3	3	3		3	3	3	3	3	3	
4.3		3	3	3	3	3	3		1	2	2	2	2	1.8		2	1	2	1	2	1.6	
4.4		3	2	2	3	2	2.4		1	2	2	2	1	1.6		1	1	1	2	2	1.4	
4.5		2	2	2	1	2	1.8		2	2	2	2	2	2		1	1	1	2	1	1.2	
4.6		2	2	2	1	2	1.8		2	2	2	2	1	1.8		2	2	2	2	2	2	
4.7		2	2	2	1	3	2		2	2	2	2	2	2		3	2	2	2	2	2.2	
4.8		3	3	3	3	3	3	2.6	3	3	3	3	3	3	2.3	3	3	3	3	3	3	2.2
Stakeholder Collaboration																						
5.1		2	2	2	3	3	2.4		2	2	2	2	2	2		3	2	2	2	2	2.2	
5.2		2	2	2	3	3	2.4		3	3	3	3	2	2.8		3	3	3	3	3	3	
5.3		2	2	3	2	3	2.4		2	2	2	3	2	2.2		2	2	1	1	3	1.8	
5.4		2	2	3	3	3	2.6		2	2	2	2	2	2		3	3	3	3	3	3	
5.5		2	2	3	2	3	2.4		2	2	2	2	2	2		3	3	3	2	3	2.8	
5.6		3	3	3	3	3	3	2.5	3	3	3	3	3	3	2.3	3	3	3	3	3	3	2.6
Service Provision																						
6.1		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
6.2		2	3	3	2	4	2.8		3	3	3	3	3	3		3	3	3	2	3	2.8	
6.3		2	2	3	2	4	2.6		3	3	3	3	3	3		3	2	3	3	2	2.6	
6.4		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
6.5		1	3	1	2	1	1.6		3	3	3	3	1	2.6		3	3	1	3	3	2.6	
6.6		1	2	2	2	2	1.8		2	2	2	2	1	1.8		2	2	2	2	2	2	
6.7		2	3	3	2	3	2.6		3	3	3	3	3	3		3	3	3	3	3	3	
6.8		3	3	3	4	4	3.4		3	3	3	3	3	3		3	3	3	3	3	3	
6.9		2	2	2	2	2	2	2.5	3	3	3	3	3	3	2.8	3	2	3	3	3	2.8	2.8
Farm Management & Production																						
7.1		3	3	3	3	3	3		3	3	3	3	3	3		3	3	3	3	3	3	

7.2		1	3	2	2	3	2.2		3	3	3	3	2	2.8		2	2	2	2	3	2.2	
7.3		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
7.4		3	3	3	2	4	3		3	3	3	3	3	3		3	3	3	3	3	3	
7.5		3	3	3	2	3	2.8	2.8	3	3	3	3	3	3	3.0	3	3	3	3	3	3	2.8
Entrepreneurial Skills																						
8.1		3	3	3	2	3	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
8.2		1	1	1	1	1	1		1	1	1	1	2	1.2		1	1	1	2	1	1.2	
8.3		3	3	3	3	3	3		3	3	3	3	3	3		1	3	3	3	2	2.4	
8.4		2	2	3	1	2	2		2	2	2	2	2	2		2	2	2	2	2	2	
8.5		2	2	2	1	2	1.8		2	2	2	2	2	2		2	1	2	2	2	1.8	
8.6		2	2	3	1	2	2	2.1	2	2	2	2	2	2	2.2	3	2	2	2	2	2.2	2.1
Cost & Marketing																						
9.1		2	2	2	2	2	2		2	3	3	3	3	2.8		3	2	2	3	2	2.4	
9.2		2	2	2	2	2	2		2	2	2	2	1	1.8		3	2	2	2	1	2	
9.3		2	2	2	2	2	2		2	2	2	1	1	1.6		3	3	2	1	2	2.2	
9.4		2	2	1	2	1	1.6		2	2	2	1	2	1.8		2	2	2	2	2	2	
9.5		2	2	1	1	1	1.4		2	2	2	1	1	1.6		2	2	2	2	2	2	
9.6		2	2	2	1	2	1.8		3	3	2	3	3	2.8		3	2	2	3	2	2.4	
9.7		3	3	3	3	2	2.8		3	3	3	3	3	3		3	3	3	3	3	3	
9.8		3	3	3	3	3	3		3	3	3	3	3	3		3	3	3	3	3	3	
9.9		3	3	3	3	2	2.8	2.2	3	3	3	3	3	3	2.4	3	2	2	2	2	2.2	2.4

Appendix 9: Transcript of GNTTTA Spokesperson Interview
Basic information

1. Name of Organisation*: Ghana National Tomato Traders and Transporters Association.*
2. Contact Person: *Lydia Afoley Anum*
3. Year Started: *It was formed in 2003 from the coming together of all districts and municipal tomato traders in the various regions in the country. It was as a result of problems encountered in the trade.*

Marketing

4. From who do you buy the tomatoes for the trade? *Tomatoes are bought from farmers in Ghana and also in Burkina Faso.*
5. How do they find the suppliers to get tomatoes for their trade? *In the southern parts of Ghana we work with farmer base organisations and so makes it easier to find the farmers with tomatoes to buy. In the upper east region and Burkina Faso, we go to the production sites with the help of lead boys who serve as interpreters.*
6. What are the problems you encounter in your trade in terms of (a) volumes, (b) prices, (c) logistics, (d) quality of tomatoes and (e) Relationships with suppliers/farmers?
    - *The traders encounter transit problems especially when crossing into Burkina Faso to buy tomatoes; border authorities continue to worry the traders to produce unnecessary documents and payments. Besides it is far more expensive to get to the Burkina than the upper east region in terms of distance and looking for the farmers.*
    - *Lead boys levy the traders so much for the work down interpreting and bargaining. Wanting to enrich their pockets overnight, even the prices agree upon per crate of tomatoes is not exactly what is given the farmers by the lead boys.*
    - *Though both Burkina and Ghana farmers use the same variety, the production methods(use of compost instead of chemical fertilizers, use of drip irrigation instead of normal/gravity irrigation) makes the Burkina Faso tomatoes to stay without rotting till traders get back to Accra to sell. However the upper east tomatoes rot on the way back to Accra due to their water content.*
    - *There used to be trust between the traders and the farmers in the early days of the trade even to the extent of traders financing the farmers, but it is not so these days sometimes traders buy on credit and abscond, farmers are pre financed and they sell to someone else. This is as a result of urbanisation*

Perception

7. Do you know cooperatives? *Yes.* If yes answer question 9 to 11
8. What do you know about cooperatives? *A farmer based organization that carries out a number of activities for the interest of the farmers.*
9. Have you ever dealt with a farmer cooperative or any cooperative in your trade? *Yes*. Why?

The association has work with some farmer based organisations in the middle belt of the country in Techiman, and Tano South through an NGO called TIPSE. They worked or dealt with the FBOs because of GAP, they are able to adhere to GAP and so tomato from them are of good quality that does not affect their trade. If they supply retailers with bad quality tomatoes, they will be out of business.

10. What is your general impression about cooperatives? Good or Bad. Explain: *it was good working or dealing with the FBOs because we were able to get good quality tomatoes from farmers because of the trainings on GAP provided them with the help of the NGO, TIPSE. At the end of the day they had market for their produces and we had good quality tomatoes for our trade. However, the activities of some FBOs are marred by some of their leaders' attitudes who try to proof difficult and selfish.*

Collaborating with Cooperatives

11. What is your opinion about the formation of tomato farmers Cooperatives in Bolga? *The Association will see it as a welcome news because the association even wants that the farmers in the upper east are organized, so that collaborations between the traders association and the farmers' association would go a long way to benefit both sides in terms of the common problems like prices, quality and volumes they both face. The traders association finds it difficult dealing with individual farmers and even so how many can they make contacts with.*

12. Would you like to trade with the Tomato Cooperative/s for the supply of tomatoes? *Yes*. Why:
    - *To establish a good relation with the cooperative/s to enhance the trust sharing of information and transparency between the two associations. The traders association already have a data base of all travelling traders and assigns days to each for the trade.*
    - *To coordinate volumes expected on weekly basis in the production season.*
    - *Support each other especially the cooperatives with technical assistance to the farmers and may be provide tomato seed varieties preferred in the market.*
    - *Together with the cooperatives set standards in the trade especially tomato grading.*
13. What would make you not trade with the tomato Cooperative/s?
    - *Inability of the cooperative/s to supply the traders with the variety and quality required causing traders running at a lots every time in the trade.*
    - *Inability of the cooperative/s to supply the required volumes per day or per week as required by the traders*
    - *In ability to extend the production period up to May with regular volumes will also cause the traders to go to Burkina Faso.*

14. Do you think the cooperative/s can help reduce some of the problems in your trade? *Yes*
15. If yes how and if no why?
    - *With the cooperative/s coordination tomato volumes with the traders Association, the traders will not have to cross into Burkina Faso, therefore less transit problems*
    - *Again with the cooperatives, leaders of the traders association will only deal with the cooperative/s's leaders eliminating the activities of the lead boys/interpreters, fare prices for both parties and no language barriers.*
    - *The cooperative/s may be able to extend GAP to its members that will ensure that quality of tomatoes is up to par with the Burkina Faso tomato quality.*
16. How do you want to deal with the cooperative/s? As individual traders or Tomato traders Union. Why?
    - *As Tomato Traders Union because the individual traders may not be able to resolve any issue they may have with the cooperative/s, but the union can meet with the leaders of the cooperative/s to solve it*

- *In ability to know what volumes they may be expecting per day or week, but the leaders of the Union can coordinate with the cooperative/s.*
- *Inability to transfer uniform information to the cooperative/s on tomato variety and quality, but the Union through the leaders can do so.*

17. What form of relationship would you prefer with the cooperatives? (a) Written contracts (b) verbal contracts based on trust and transparency (c) spot market relations. Why?

The Union will like to deal with the cooperative/s for the beginning without any form of contracts but on trust and transparency because: The union will want to be sure of the reputation and trustworthy of the cooperative/s and the ability of the cooperative to provide good quality tomatoes for trade before venturing into any written contracts with the cooperative/s.