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## **Dedication**

To my beloved Father John Rutailwa John Magongo and My Late beloved Mother Oliva Simon for Unconditional Love and Support

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## List of Abbreviation

ASDP	Agriculture Sector Development Programme
DADPs	District Agricultural Programmes
DOP	Division of Proceedings
EBA	Everything But Arms
EU	European Union
FA	Farmers Association
KCGA	Kilombero Cane Growers Association
KSCL	Kilombero Sugar Company Limited
LED	Local Economic Development
LG	Local Government
LF	Lead Firm
MOA	Mtibwa Outgrowers Association
MSE	Mtibwa Sugar Estate Limited
NGO	Non-governmental Organisation
NEI	Netherlands Economic Institute
NIPPA	National Investments Promotion and Protection act
PASS	Private Agricultural Sector Support
REPOA	Research on Poverty Alleviation
PSRC	Private Sector Reform Committee
RCGA	Ruhembe Cane Growers Association
SAP	Structural Adjustment Programmes
SBT	Sugar Board of Tanzania
SF	Small Farmers
SSA	Sub Saharan Africa
TASGA	Tanzania Sugarcane Growers Association
TNC	Transnational Corporations
TSPA	Tanzania Sugar cane Producer Association
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
URT	United Republic of Tanzania

## Abstract

Using a comparative case-study approach, this study examines the role of contracting farming in upgrading of small farmers in sugar industry in Tanzania. The focus is on comparing the strategies employed by two LFs (domestic and foreign firms) to coordinate the sugar value chain in Mtibwa and Kilombero districts in Morogoro region. The study also explores the impact of the supply chain to the local economic development.

Results suggest that strategies employed by the LFs differ in terms of providing assistance to the small farmers, monitoring of the agreed terms, payment and compliance to the contract. On one hand the foreign firm has developed good relation with small farmers, honour contracts, invested in farmers, pay good price, have been able to attain higher production of cane with higher sugar content. On the other hand the domestic LF has antagonistic and mistrust relationship with small farmers, have not invested in quality of canes from farmers, pay low prices, default contract; have attained low production, low quality sugar content compared to the foreign firm.

The strategies between the two differ because the foreign firm has business competency which is applied to gain profit. The domestic LF has business incompetency, therefore compensating by using business with politics strategy to gain profit. Political patronage is used to withstand the pressure and dissatisfaction of farmers.

Value chain upgrading for small farmers occurred though with restricted opportunities. The limited upgrading occurred to process and a bit on product, and more process upgrading took place at the level of the FAs than at individual farmers. However, upgrading occurred more to small farmers who operate in the chain organised by the foreign LF, than the one organised by the domestic firm, reflecting the business strategies employed by the LFs. Institutional support also played a significant role to enhance the chain organisation and operation and small farmers upgrading.

Even though FAs are present both chains are captive in nature to small farmers because the investment to start the refining is just prohibitive and there are no other refineries in the neighbourhood. In this case small farmers have no alternatives than to sell their cane to LF. Although the chains are captive, it does not mean that they are always bad because even foreign LF can choose to behave like domestic firm; however, there is a limited desire for foreign firm to us political patronage.

The impact of the chain on the locality economic development found to be more linked for farmers.

## **Relevance to Development Studies**

There is growing recognition of Contract farming in providing opportunity for poor farmers to increase their productivity, reduce insecurity in terms of price of agricultural commodities, and increase quality of products. The key issue in contract farming to determine its effect to small farmers is not the contract only, but the strategy employed by the LF to establish the relationship with small farmers.

Many of the literature rely heavily on secondary data with case studies that are distinctively non-African in orientation, drawing largely on studies conducted in Latin America and Canada (Watts, 1990). Gibbon (2001:345) asserts that 'Global value chain analysis which directly concern with upgrading in Developing countries has been confined mainly to manufactured commodities and focused to a lesser extent to upgrading in primary commodities.

This study will add to the literature of contract farming with case studies drawn from an African Context.

## **Keywords**

Contract farming, Value chain, Upgrading, Local Economic Development and Small Farmers



# Chapter 1

## 1.1 Introduction

This paper seeks to assess the experience of introduction of contract farming through private firms in two localities in Morogoro region. The focus of the study is the process through which the LF has integrated small holder farmers in an agro-business. The central question is concerned with assessing the organisation of the supply chain by the LF and how has that led to upgrading of the small farmers<sup>1</sup> (SF). The study compares the strategies used by the domestic and multinational firms to organise the supply chain. The study also looks at the effect of the contract farming (CF) on local economic development.

Contract farming is not a new phenomenon in agricultural production. It has been defined as ‘contractual arrangements between farmers and other firms, whether oral or written, specifying one or more conditions of production and or marketing of an agricultural product’ (Glover and Kusterer, 1990:4). Contracts could be by individual or a group where small producers (SF) are organised into groups.

There is a glowing recognition of importance of CF as a way to meet or increase production, quality, and equity and overcome supply and market failure goals in many African countries where agricultural sector is characterised by subsistence farming and at the same time the major source of employment and livelihood. Late 1980s and 1990s was characterised by decline in continent’s export, while foreign exchange reserves were depleted and the government faced with economic crises. Structural adjustment Programmes (SAP) was adopted to overcome those crises.

Early SAPs affected many small farmers because liberalisation policies focused on “market led growth’, privatisation and rolling back of the state in leading the economy. Most government in Africa were forced to shrink size, cut down public expenditure, and remove subsidies especially for agricultural inputs, and extension services. In this case small farmers<sup>1</sup> (SF) problems in production and market for their products were exacerbated (Glover and Kusterer 1990). SF were faced with low technology, lack of access to credit, extension services. These constraints caused low yield with poor quality and hence could not fetch good prices. Moreover, the institutions and private agents were not in place to make the market economy function.

However, later programmes for the adjustment were geared toward assisting SF as Little and Watts (1994:7) argue ‘contract agriculture found niche in reform programmes that promoted export diversification including non-traditional exports such as flowers and fruits’. International finance agencies and donors showed interest in addressing problem of rural development and economic growth through incorporating small rural producers into global economy (Golsmith 1985). Given the in-efficiency, corruption and bureaucratic inertia with state involvement, donors advocate the involvement of the private sector in addressing these problems (Haider 2000).

Proponents of the CF provide that it increases the competitiveness of the SF, firms and enhance locality competitiveness. For this to happen the locality is required to have an economic base which 'refers to the activities that involve exporting products' (Helmsing 2005:3, Malecki 1997), in the case for this study the export base is sugar cane. The economic based theory suggests that competitiveness of an area lies in what is able to export to other places and this depend much on its comparative advantage over other rather than being independent ( Malecki 1997 ). In this case the economic base of an area needs to have high demand both internal and external.

Therefore, CF provides an opportunity for the farmers to upgrade their products and markets through the chain. Freeman (1985) argue that '... in the agricultural sector, most efficacious way to obtain desirable results, from an economic and from a developmental view point, is to energise small scale farming. This is done most effectively by organising farmers around a corporate core that offers them necessary technology and a personal stake in state- of- art production'. To add to this Cramer (1999) argues that the processing of primary commodities can provide major platform for economic upgrading.

The economic base provides an opportunity for firms to grow and specialize in different activities within the value chain (Helmsing 2005). 'Specialization itself is an important mechanism enhancing the competitive position of these producers' (Helmsing 2005:4). This orientation is also enhanced when agro business take place in the locality.

Economic base can influence local economic development (LED) when it has multiplier effect which in turn can promote upgrading for farmers involved. Malecki (1997) contends that the development of the economy of the locality depend much on the multiplier effects which enhance other activities or sector to emerge creating dynamics in the locality. Little and Watts ( 1994) argue that in era of globalisation CF provide a dynamic partnership between the small and large private enterprise in which both transnational and domestic firms and peasant growers benefit without sacrificing their rights and interest of either party.

The competitiveness of the farmers also depend on other external factors such as government policies of enabling environment, availability of the specialised institutions such as research institutions, and quality control institutions which provide regulations (Porter 1990).

Contract farming is without negative consequences for small farmers. Increased dependency of SF on Lead firm (LF) is among negative consequences which can lead to impoverishment and subordination of poor peasants (Watts 1994, McMichael 1994, Clapp 1994, Goodman 1997). It has been argued that contract farming can lead to unequal distribution of power and income between LF and small scale farmers, where the later get lower income and are just placed in the lower level of the chain.

Whilst, the above arguments for CF; the positive and negative aspects of the contracts depends much on the type of relationship between the contractor and contracted or the behaviour of the LF towards SF. Therefore, this paper argues that competitiveness of small farmers increase as a result of LF

interventions at small farmers' and locality level whereby CF is the institutional arrangement under which this takes place.

## 1.2 Tanzania Case

Agriculture is the dominant activity in Tanzania employing about 80% of population but contributes 46% to GDP. It is growing at 5.2% but has very low productivity with growth rate of 0.3% (RAWG, 2005). The low productivity in the sector is attributed by the nature of farming practice. Tanzanian agriculture is family based small-scale farming which is constrained by limited education and experience of smallholder farmers, who are frequently exposed to shocks and have to deal with weak institutional arrangements for production (RAWG, 2005).

Before structural adjustment the agricultural sector was performing well because the state was involved much in assisting farmers. Policies and institutions put in place dealt with price setting, provisions of soft credit, subsidies for agricultural inputs, and technology transfer through training. Small farmers were operating under hierarchical CF where there were number of institutional arrangements to assist them. The government set prices, provided and measured standards, purchased all crops from small farmers. Farmers had assurance of the market for their produce; however, the payments were delaying.

In the wake of structural adjustment and market liberalisation, privatisation, rolling back of the state became dominant. This forced states in developing countries including Tanzania to cut down on public expenditure and remove subsidies on inputs, training, and markets for agriculture produce. This paved way for the arm length marketing which mostly affect SF especially with greater integration in the world market economy. Small farmers lack access to new technologies, credit for inputs and market for their products. Available data provides that since 1990 production trends of both food and cash crops registered fluctuation around low levels, and some have actually declined. Most cash crop production levels, such as for tea, tobacco, sisal, and coffee, have fluctuated around 50 million tons a year (RAWG, 2005). Only cotton and cashews have recorded significant jumps in production (ibid.). The key problem of arm's length markets are associated with high risks such as price and market uncertainty on the part of SF and less predictable volumes and supplier defaults. Contract farming helps containing these risks.

A decade later, it became clear that CF as strategy provides opportunities for communities to promote cash crop export diversification through improving quality and quantity of the production. The government of Tanzania then decided to revive CF strategy in areas where it had already established but this time through private sector. The sugar industry is among industries that were privatised by the government. It is one of the most important agro-industries in Tanzania which was started in early 1924.

At time of privatisation sugar had demand both in domestic and international market. In 1997 total demand was estimated to be 300,000 tons p.a. (NEI, 1997). During the period of 1990-1996 the government could not

maintain the production or expand the sector as it was under economic crisis. Therefore, the government decided to look for private partners who will invest in the sector, introduce improved technologies and expand the sector in order to meet both domestic and export opportunities (PSRC, 1997).

Literature provides that Sugar cane recorded a much higher growth in production from 2001 after several years of stagnation from 1million tons to more than 220 million tons in 2004 (URT, economic survey, various years). This significant growth can be attributed to the privatisation of sugar cane estates and the adoption of the out grower model of production (CF) which began in early 2000 (RAWG, 2005).

Most studies on CF in sugar industry have focused on institutional changes at macro level, impact of the CF in increasing production and productivity, food security, improved income, and efficiency (ESRF 2002, REPOA 2007, Matango 2006, Msuya and Ashimogo, 2007). No study in Tanzania context has used a comparative case study to explore the process of agro- industry integration under private LFs within a locality. Therefore, this study is geared to fulfil the gap.

### **1.3 Scope of the Study**

This study is limited to the assessment of the strategy used by 2 firms, the domestic and foreign firm to organise the supply chain in sugar industry and how that has led to upgrading of small farmers. The study also assesses the impact of the chain coordination to the local economic development (LED) and role of different actors that influence the chain. These include those that are contracted by the LF and those that are not. The study focus on local government, donors and NGOs, other actors are not assessed due to time limit.

### **1.4 Research Objectives**

To assess the strategy of domestic and foreign LFs in integrating small scale farmers through CF and how this can lead to upgrading under sugar cane CF in Morogoro region.

### **1.5 Main research questions**

1. How and to what extent has the domestic and foreign LFs' strategies for integration of small farmers in the sugar production value chain differ?
2. How do the strategies employed by domestic and foreign firm lead to SF upgrading?

*Sub Questions:-*

1. What are value chain strategy/mechanism employed by each LF
2. How has the value chain strategy enhance upgrading of small farmers in each locality
3. Who are other actors who influence the value chain process in both localities ( Local government and NGO)

## **1.6 The Research Methodology and Limitation**

This study use the methodology of comparing two case studies in an attempt to assess how strategies used by the domestic and foreign LFs to organise and coordinate the value chain differ and how they lead to upgrading of SF. The case studies involves the foreign firm called Kilombero Sugar Company Limited (KSCL) located in Kilombero and Kilosa districts and Mtibwa Sugar Limited (MSL) located in Mvomero district.

These areas are chosen first because sugar production is an export base for the locations and is an interesting area to explore because it has high demand both within and outside the country. Second, there is presence of cane production and processing mills that are owned by the domestic and foreign firms that are the focus of this study. The areas have long tradition and practice in cane and sugar production. Moreover, CF in sugar industry in Tanzania is only taking place in these areas. Lastly, the places are also chosen because are located near the capital city Dar es Salaam; hence make it feasible to be reached in terms of accessibility and finance.

### ***Data Collection***

Both primary and secondary data were collected to answer the research questions. The field work was conducted in August, 2008 taking a total of three weeks. The in-depth interview and discussions were held with the Director of Trade (BOT), District Planning Officers, District Agricultural Officers, and District Engineers. Focus of interviews were around issues concerning coordination, regulation, and planning, technical capacity of the sugar value chain. The interviews also focused on the strategies and performance of the LFs and farmers, support to the actors in the chain.

Interviews were also held with KSCL and MSL management and the project officer for the Kilombero Community Trust Funds (KCTF) and the three FAs Kilombero Cane Growers Association (KCGA), Ruhembe Cane Growers Association (RCGA) and Mtibwa Outgrowers Association (MOA) to discuss LFs strategies in coordination and organisation of the sugar value chain, relation with other actors, capacity, experience and challenges in governance of the chain.

Discussion was also held with Tanzania Sugarcane Growers Association (TASGA) on issues of capacity and effectiveness of the FAs to represent farmers, the relationship between the LF and FA and upgrading of SF. Interviews with SF group members 5 from each location were held.

Various documents relating to the case were visited including, plans and implementation reports. References have also drawn from earlier work of European Union (EU) and the local government and REPOA. Relevant books and journals were reviewed.

### **1.7 Limitation of the Study**

The field work was conducted when the harvesting seasons had started. In this case it took time before the reseacher could be able to interview LF managers and leaders of associations. In addition there was an issue of distance between the localities which make the travelling days be more than envisaged, which needed use of more investment in terms of time and resources. Therefore, more interviews with farmers could not be held to get their opinion in upgrading issues. The data from the LF, FA, TASGA helped to fill in the information.

### **1.8 The Structure of the Paper**

The paper contains six chapters. The following chapter is the review of various theories and concepts of value chain that provides the analytical framework of the CF and upgrading of SF, LED concepts are also discussed. Chapter three describes and discuss the organisation of the supply chain. The chapter four discusses the outcome of the strategies by the LF. The fifth chapter provides the reflection of theories on the case and key lessons that can be learned from Morogoro experience. The last chapter provide is a brief conclusion.

## CHAPTER 2

### Theoretical Framework

#### 2.1 Introduction

This chapter reviews relevant theories and concepts that have formed the basis for describing and analysing the strategies undertaken by LFs in Morogoro region to coordinate sugar industry chain. The focus is placed on concepts of Value chain, CF and upgrading of SF. Concepts of local economic development, economic base of an area and competitiveness are also looked at.

#### 2.2 Value chain

##### *Definition and main concepts and issues*

A value chain is a 'sequence of activities required to make a product or provide a service' from design stage through to the final consumer (Schmitz & McCormick 2005:4) and to the linkages binding them (Gereffi 1994:96). The value chain elaborates how and what to be produced and gains accrued along the chain.

Although value chain framework is relevant to the analysis of firms and understanding on how countries develop strategies to attempt to move into high value niches, it can also be used to assess how different coordination strategies used by LFs can provide possibilities or difficulties for upgrading or/and exclusion of SF (Gibbon 2001). There is a general recognition that hierarchical networks are contributing factors to enhance competitiveness of participating SF and LFs.

Effective value coordination requires some degree of governance (Gereffi 1994, Schmitz and McComick 2005). According to Humphrey and Schmitz (2002:7) governance entails the 'inter-relationships and institutional mechanisms through which non market coordination of activities in the chain are achieved'. They further elaborated that governance occur when some firms in the chain work according to production parameters put by others. The firms that put parameter to others to follow are called LFs.

Gibbon and Ponte (2005:99) further define the LF by arguing that 'LF does not refer mainly to the market share of such firm, in comparison to other firm in the same functional position, but to the fact that they control certain functions that allow them to dictate the terms of participation by other actors in different functional position in the value chain'. Capacity of the LF is a result of factors that include development of a strategic end-market share on the basis of economies of scale, or some other form of marketing strategies, and political connection allowing firm's influence on the framing of favourable regulatory legislation (ibid).

This research refers LFs as the processors and traders who are responsible for coordinating the supply chain and source directly to the producers.

### ***Strategies used by the LF***

According to Kaplinsky and Morris (2000) the function of governance in the value chain analysis is best understood through the lens of civic governance, with its analysis of different functions associated with “regime of rule making and rule keeping”, the positive and negative sanctions which are used to enforce these rules, the legitimacy of the power of the rule-makers and the extent of governance of the rule maker. These also can be referred as the strategies used by the LF in coordinating the supply chain.

The regime of rule making and keeping, first involves making the rules (‘legislative governance’) which defines parameters governing the chain. These rules are largely concerned with meeting basic costs, guaranteeing supply, delivery reliability, quality and price. But also it is important to audit performance and check the compliance with rules set (‘judicial governance’) that is coordinating the conformance to the set parameters. However, in order to meet these rules of participation, there needs to be some form of proactive governance (‘executive governance’) which provide assistance to value chain participants in meeting these operating rules, that is managing the various subordinate links in the value chain. This can be done directly by the LF helping suppliers to achieve standards or indirectly by introducing the supplier to a service contractor firm that can assist in meeting the standards required.

Exercising sanctions is key to the function of the governance in the values chain (Kaplinsky and Morris, 2000). The negative sanction can lead to excluding or limiting the role of producer or impose penalties. Positive sanctions are mostly in rewarding forms. In the era of globalisation, failure to reach the required level of standards does not automatically result to sanction of exclusion; instead executive governance is exercised to assist the transgressing party achieve required levels of performance.

Following argument by Kaplinsky and Morris (2000) who adopted the lens of civil governance in trying to explain functions of governance that are likely to enhance upgrading, this paper hypothesises that domestic firm is more likely to make the value chain run smooth than foreign firm. Domestic firm being part of the local actors that aims to bring local development, combining with the knowledge of the community is in a good position to have legitimacy to formulate, enforce rules and provide sanctions that are mostly positive. The private firm (Domestic LF) being an engineer of the economy is more likely to assist SFs to reach required standards. Moreover, sanctions provided to SF by domestic LF are geared toward strengthening their position in the chain than excluding them out. Domestic firm is more likely positioned to use political influence to positively influence the government and other actors such as NGOs to assist SF to raise standards of their products and services than International firm

However, the above might not be the case for developing countries, where the private sector is still growing and some of the entrepreneurs tend to conduct business with political behaviour. Literature on governance and entrepreneurs in developing countries identifies the presence of a group of entrepreneurs that seize the economic opportunities basing on the close association with the state (Helmsing 2005). Elaborating on this argument (Taylor 2002) holds that their strength does not lie in entrepreneurship and



innovation but in deriving advantage from 'insider trading' by 'being in the know how' and by having privileged access to state resources. These kind of entrepreneurs tend to lack experience, capacity in terms of capital and management and technology which is necessary for growth of the firm and upgrading of SF. In this situation, this paper hypothesises that the LF will tend to have bad relation with SF because it is mostly likely to use negative sanction and exclude the SF than assisting them to raise the standards. It is likely that the LF will default the contract to make profit and use political patronage to resist and contain angry farmers.

Various literatures on TNC support the argument that domestic firms are in the better position to integrate SF and enhance their upgrading than foreign firms.

Literature on economic development (LED) recognises the importance of the transnational corporations (TNC) as a source for technologies, skills and access to international market (Lall, 2004). TNC are defined as governance structures whose core capability is to coordinate and control value adding operations dispersed globally (Casson 1994), or regionally. TNC has become more mobile, searching the world for lower costs, more efficient production sites and for new markets (Lall 2004).

TNC also create competitive advantage derived from three assets which make them superior (ibid.). The first is associated with technology (knowledge, capabilities or machinery). The second is related to the conduct of transactions, based on superior intra-firm hierarchies within and across national boundaries. The third is advantage of 'common governance'. These are transaction assets gained from TNC superior knowledge of markets and internal governance which make them outcompete domestic counterparts though they might have the similar technologies.

However, it has been argued that TNC tends to invest or focus in countries with strong domestic capabilities and liberalisation policies (Lall, 2004). Following the argument by Bernito & Grogard et al., (2003) and Richie (2002) the quality of TNC spillover depends on domestic capabilities that include the presence specialised skills, service firms or clusters, good infrastructure and strong support institutions. Altenburg (2000:5) further argue that although most TNC tend to focus much on core competencies giving opportunities for domestic suppliers to participate in the chain, they require a broad range of competitive high quality inputs delivered on time (ibid).

This poses threats to the developing countries whose agricultural system is characterised by large number of SF. Most of the developing countries especially SSA have limited domestic capabilities such as poor infrastructure, many unskilled labor, absence or limited supporting institutions. In this case TNC are not likely to invest in these countries and if they do the upgrading and spill over will involve actors that are well developed. In other words the alleged positive role of TNCs for LED is often criticised to have more external control than local dependency whereby they tend to create lower order jobs, have lower linkages to local firms and potential innovation, hence low impact on LED( Watts, 1981).

## *Contract Farming*

This is one form in which the supply chain may be organised. Contract Farming is one of the methods of strengthening coordination in the agrifood chain, whereby producers enter into contract with LF. Eaton & Shepherd (2001) define CF as an agreement between one or more farmer(s) and the contractors for the production and supply of agricultural products under forward agreements, frequently at predetermined prices. The link of contract is not only on farmers output but also on farmers' inputs (such as credit, material inputs). Farmers seals contracts to give up the possibility to switch to a buyer offering a better price in exchange of accessing inputs. Moreover, contract can help avoid external effects (third parties) benefiting from services provided by the lead firm. The external effects could otherwise cause market failure: the lead firm would not do business with the small farmers under arm's length conditions.

Empirical evidence establishes that under certain condition CF arrangements can benefit SF. Conditions include supportive government policies, collective action in produce organisations and support from NGOs.

Governments may play two important roles in ameliorating the negative effects of CF (Best 1990, Eaton and Shepherd, 2001; Simmons, 2002). The state may act to regulate the market ensuring that contractors do not abuse their market power and provide support to SF to realise required standards. .

Presence of farmer groups is another condition suggested to benefit SF. Associations can assume multiple roles (Levitsky 1993, 1999) which include traditional and more recent ones. Traditionally association serve to represented their members, negotiate and lobby for fair share of profit generated and more favourable economic policies among others.

Farmers Organisations (FA) are considered instrumental in increasing the value generated throughout the chain, such as ensuring that the quality of products is in line with the standard demanded (Helmising, 2005, Schmitz 2004, Weijland 1999). These are Private interest governance which refers to regulatory function performed by associations, especially establishment of norms and standards for products, best practices and code of conduct (Helmsing, 2005:296).

These values are achieved through collective action which enhances provision of joint certain goods and services that cannot otherwise be obtained in the market or non market places at a desired price and quality. Therefore, FA reduce transction cost in contracting arrangement for both LF and farmers by channelling and supporting the technical assistance needed to help producers increase quality and uniformity (Shiferaw B. et al, 2006; Weijland 1999).

The presence and assurance of trust between and among individuals facilitates the potential for reciprocity and emergence of cooperative behaviour (Runge, 1981; White and Runge, 1995). It follows, thus, that interventions which enhance trust among members in a group, including laws of engagement

and operational democracy, are likely to contribute to successful collective action.

NGOs can partially make CF viable and sustainable by providing services where the state is unable or unwilling to provide needed services (Bijman, 2008). Therefore, the role of different actors such as state, local government, producer's organisation and NGOs is crucial in facilitating the establishment and coordination of CF.

CF is not without disadvantage. CF arrangements tend to be characterised by an unbalanced power relationship which may easily lead to exploitation of SF. This occurs in the situation where the supply chain put SF in 'lock in' situation. Gereffi et al (2005) argue that lock in situation is found in vertical hierarchical chain organisation whereby the suppliers depend much on the buyers for resources and market access. In this situation supplier's face significant switching costs.

Suggested remedies to counter this situation include farmers maintaining alternative production, opportunities and income in addition to their contracted obligations, this will put them in a much stronger bargaining position (Glover, 1987; Porter and Phillips-Howard, 1997; Warning and Key, 2002).

## ***Upgrading***

It is recognised that upgrading is crucial for SF in the South to access and gain in the global economy (Schmitz 2004). Upgrading has been defined as 'enhancing the relative competitive position of a firm' (Knorringa & Schmitz 2000, Schmitz, 2004). Cramer (1999) argues that the processing of primary commodities can provide a major platform for economic upgrading. However, many analyses on primary commodities have shown that there is extremely limited value chain upgrading (Gibbon, 2001). This is the case for the sugar cane production whereby any upgrading is limited to process and a bit of product. More process upgrading can take place at the level of FA than individual farmer.

However, this research is focused to examine the contract practise and the relationship between the LF and SF. In this case this study follow argument by Gibbon (2001), and apply value chain framework to assess how different coordination strategies used by LFs can provide possibilities or difficulties for upgrading or/and exclusion of SF . Therefore, the framework still applies to determine if the basic upgrading opportunity the SF have can occur under the current LFs.

In this case, upgrading for SF is explored following the discussion of the upgrading aspects by Gereffi(2001) and Kaplinsky (2001). *Process upgrading* can be undertaken within firms by introducing new machinery or better practices (ibid). It can also result from new capabilities acquired from inter-firm linkages. In sugar industry upgrading may include the use of improved mechanism for production that transform inputs to outputs more efficiently such as use of efficient seedlings, effective pesticide regimes, just in time planting, harvesting and supplying the crops.

*Product upgrading* refers to improvements in the form, nature and composition of a product that increases its intrinsic value. Product upgrading is geared towards increasing relative unit prices of products to remain competitive in the market. Product upgrading in agriculture sector in sugar industry may include increased unit values and yields per ha.

*Functional upgrading* may mean changing functional positions by adjusting activities undertaken within a particular link or moving to activities in other more profitable links in the same value chain.

### **2.3 Local economic Development**

The nature and governance of the chain supply can have impact on LED. Blakely (1989:58) define LED as a 'process by which local governments and/or community-based groups manage their existing resources and enter into new partnership arrangements with the private sector, or with each other, to create new jobs and stimulate economic development in a well-defined territory'.

In this regard, the central characteristic of LED is the emphasis on reliance on endogenous factors and actors as Blakely (1989:58) argues 'the central feature if locally based development is to be achieved, is its emphasis on endogenous development policies, using the potential of human, institutional and physical resources'. Important also is the mobilisation of all actors to address local developmental challenges.

Wave of forces of globalization, liberalization and decentralization has influenced LED (Helmsing, 2003). 'Globalisation has accelerated flow of money, goods and services, information, and people are more than ever crossing national boundaries' (Berner, 2001:212). On one hand, this mobility has increased competition and created grounds for localities to compete with one another to attract inward resources in order to create local employment and income (Helmsing, 2003). As a result problems and challenges of unemployment and poverty were accelerated. Meyer- Stamer (2003:1) argues that 'problems and challenges of unemployment and poverty are most urgently felt at local levels' in this regard, the Local governments and communities are concerned with promotion of LED.

On the other hand, globalisation has led to internationalisation of economies. Internationalisation of economies led to trade between localities rather than states. In this regards, local governments in the South are employing different strategies to deal with resource utilisation so as to create more employment, increase income and bring local economic development. LED strategies are attempts by communities to assess and use potential of their economic base, realise their competitive advantage, upgrade their localities, enterprises and insert themselves into the existing domestic and external markets through mechanisms such as CF and continue to move to better positions in the value chain.

## **Economic Base of the Locality**

Each community has unique domestic conditions that can help or hinder its economic development. Porter (1990) refers these conditions as competitive advantages. Economic growth of the locality is determined by demand of goods and services outside a locality and its ability to trade with other localities (Blakely, 1989). Resources that have demand outside the locality boundary make the economic base of locality. Although in many localities in developing countries advanced resources may not exist but the presence of basic factors like natural resources are important as export staple (North, 1994).

It is argued that export firms have higher job multiplier in the local economy because every job created in an export firm will generate, depending on the sector several jobs elsewhere in the economy (Blakely 1989, Maleck, 1997). This implies that the non export firms or service providing businesses will develop automatically to supply export firms or the population that works in them.

The competitiveness of the firm not only depend on the demand of its resources or economic base but also its efforts to undergo dynamic improvement and innovation for its processes and products, the home based internationally competitive suppliers, local business environment in which it operates (Helmsing 2001, Porter 1990). Supporting this argument Best (1990) emphasise that government policies might hinder or enhance competitiveness of the firms.

## **Chapter 3**

### **Coordination of the Sugar Value Chain**

#### **3.1 Sugar Industry in Tanzania before Privatisation**

The sugar industry is one of the most important agro-industries in Tanzania which is the major contributor in the earnings of foreign exchange. The sugar industry consists of five sugar factories and estates owned by Kilombero Sugar Company Limited (KSCL), Mtibwa Sugar Estate (MSE), TPC Limited and Kagera Sugar. For many years these factories were owned by the government and cane production involved both LF and outgrowers. Before liberalisation the State was involved with provision of credit inputs to small holder's farmers, extension services delivered without fees, marketing distribution and stocking of sugar and pricing which was the same in all regions (NEI, 1997).

The production was high though not enough to suffice the domestic market. Following the SAP implementation the sugar distribution was liberalised in 1992. This translated to opening up of the sugar market, reduction of the government involvement in production, distribution and marketing. The government still maintained ownership and operations of sugar factories. During this time the sugar industry competitiveness was reduced. The production averaged 115,000 tons of sugar while the demand was around 300,000 tons. Export to the EU as part of preferential agreement however, remained steady. The condition of factories deteriorated; payments for the outgrowers were delayed affecting reinvestment in the sector and the government could not sustain operations.

In this regards government decided to undertake privatisation in the sugar industry in 1997 to attract private capital and technology to meet both the domestic and export opportunities (PRSC). Following this decisions all five factories were privatised.

#### **3.2 Sugar Industry after Privatisation**

The sugar industry is currently organised under the Sugar board of Tanzania (SBT) established by the sugar industry act of 2001. The board is responsible for regulating the operations within the sugar industry, promotion of production, exporting, importing and marketing of sugar and development of the SF (SBT 2001).

Principle stakeholders for the sugar industry include government, sugar cane producers organised under association of sugar cane producers (TSPA) and outgrowers organised under outgrowers associations. These associations have formed an apex called Tanzania Sugarcane Growers Associations (TASGA). Both TASGA and TSPA are members of the sugar board. Currently the support for the SF is mostly provided by millers. Other institutions such as NGOs and donors are also supporting the sugar cane industry through provision of funding for training, building of infrastructure

and credit for inputs. Although price set up is regulated by the state, it is largely determined by the market.

Lead Firms that have invested in the sectors enjoy wide ranges of incentives under the National Investments Promotion and Protection act (NIPPA). The incentives involves exemption of import duty on all machinery and equipment, spare parts, materials and supplies, except for a charge of import duty and 5% sales tax. The financial success of the sugar industry is strongly influenced by the price at which imported sugar enters the domestic market. Recognising this fact, the government has adopted a policy on protection of the domestic market by charging higher tax on the imported sugar (NEI, 1997).

### **3.3 Demand and Production**

Sugar is a sweet crystalline substance which is demanded for human consumption provide energy and is used for various manufacturing industries such as soft drinks, cookies and beer. Sugar is also a source of bio-fuel.

Sugar has demand both at domestic, regional and international market. Domestic demand is estimated to be 450,000 tons (TASGA, 2008). There is also demand from neighbouring countries Kenya and Uganda who have deficits, importing more than 300,000 tons of sugar per year (UNIDO, 2006). With the completion of the East African Community free trade area, Tanzania will have a duty free access to both markets, which are protected from international imports by a 35% tariff (ibid.).

Tanzania export sugar to EU market under the ACP-EU preferential agreement with prices which are higher than average world market. Although sugar export to EU under this agreement is expected to phase out by 2009, Tanzania will have unrestricted preferential access to the EU sugar market under the Everything But Arms agreement (UNIDO, 2006).

Therefore, there is a potential and reasons for expansion of the sugar industry and be competitive to meet the domestic demand and opportunity to export to the neighbouring countries and access higher prices in the EU market.

The sugar production in Tanzania has increased since privatisation to reach the level of 265,000 tons by 2007-08 (SBT, 2008). Although the country is currently a net importer of sugar even with production growing by 15% per year, it has a potential of expanding to become the net exporter (UNIDO, 2006). There is enough arable land suitable for cane cultivation, high yield potential for the block farming and especially in large estates, the low cost production<sup>2</sup>, and the domestic expertise.

### **3.4 Study Area**

The study involves three districts in Morogoro region namely Kilosa, Kilombero and Mvomero. According to 2002 Census districts have total population of 489,531, 322,779 and 260,525 respectively (urt,2007). All districts

are endowed with highlands, lowlands, alluvia plains and rivers that provide good conditions for cultivation. Districts have an annual average rainfall of 1000mm-1600mm for Kilosa, 1200 - 1400 mm for Kilombero and 600-2000mm for Mvomero. Agriculture is the main activity in these districts (URT,2007) with cotton as a major crop for Kilosa and Mvomero is cotton. Sugarcane is highly grown in these districts with Mvomero having a large area (33%0 followed by Kilosa 31.1% and Kilombero 30%. Social services are available in these districts with varying degree. Kilosa is the one with good services followed by Mvomero. Kilombero has worst services with few facilities. Electricity is mostly available to Kilosa and Kilombero than in Mvomero. Most of the roads in these districts are not passable throughout the year; however, the situation is worse for Mvomero.

### **3.5 Sugar Production in Morogoro**

#### **Lead Firms**

MSE was privatised in 1999 as a subsidiary of a domestic firm called Tanzania Sugar Industries (TSI) which own all shares (MSL, 2007). On the other hand KSCL was privatised in 1998 as a subsidiary of the foreign firms Illovo of South Africa, it own (55%) ,ED &FMan a UK based company (20%), the remaining (25%) shares are owned by the government.

In terms of experience in sugar industry and trade, KSCL is more experienced MSE. Illovo is among the leading company in sugar production with subsidiaries in other 6 African countries. TSI had vast experience in transportantion during privatisation, for this case it decided to contract the management from Mauritius for the first few years to run operations. Since then TSI has been employing managers from domestic and external with sugar experts on contract basis.

At the time of privatisation both mills were producing low amount of sugar compared to the demand, MSI was producing 32,128 tons of sugar and KSCL was producing 29,580 tons of sugar. These figures indicate that Mtibwa was doing better than Kilombero which has two mills with capacity of producing 85,000 tons at that time. This difference can be explained by the fact that Mtibwa had good condition at the time of privatisation because it underwent major rehabilitation, while KSCL had worse conditions (NEI, 1997).

LFs business plan for the first and second phase indicate the viability of the sugar business. MSI first phase aimed at producing 50,000 tons of sugar by 2003/2004 and increase the production to 100,000 tons of sugar in the second phase (MSE, 2007). On the other hand, KSCL aimed at producing 103,000 tons by 2005 and 180,000 tons respective (KSCL,2005).



## **Farmers Associations**

As indicated earlier CF involves also SF who mainly produce sugar cane for the mills. When the government was preparing for privatisation farmers were advised to start organisations. It was envisaged that the presence of these associations will enhance collective action and bargaining power for farmers.

Three organisations were established: the Kilombero Cane Growers Association (KCGA), Ruembe Outgrowers Association (RCGA), and Mtibwa Outgrowers Association (MOA). When privatization was completed in 1997–98, these associations became the outgrowers' legitimate representatives. The associations have various functions, they act as spokespersons for the farmers, negotiate with the LF for better contracts terms, source funds to extend loans to the farmers, provide education and training on improved cropping practices, and lobby for policy change to favour the SF. Members fund their activities by contributing between TSh 200 and 250 per tonne of cane harvested (MOA, 2006). The three associations have an estimate total of 10,000 outgrowers (EU, 2007). The contract between the LF and the SF is done through the FA

### **3.6 Lead Firm strategies**

This section discusses the strategies employed by the two LFs in coordinating the supply chain. Firm strategy is important in enhancing business operations, building the trust between actors. The strategies include the division of labor between the LF and the farmers, terms of contracts and how they are made, support to the farmers, monitoring of the agreed functions, sanctions exercised and involvement of other actors to support the supply chain. The discussion first focuses on how the strategies are supposed to be according to the contract, followed by what is happening on the ground.

### **3.7 How the contract is supposed to be**

#### ***Phases of the Value chain***

Division of labor shows the technological inputs and output in the supply chain. It indicates phases done by different parties which denote the value of the phase. The sugar supply chains in both cases involve production of cane, harvest (include cutting, loading and supply of cane to the mills), processing of sugar, refining, packing and marketing of sugar.

Phases that are to be done by similar actors in both cases include; production which is done by LFs and FA, processing, refining and packing of sugar are to be done by the LFs. The implementation of other phases differs in terms of actors. While harvesting of cane is to be done by the LF and FA in Kilombero and Kilosa, the LF in Mtibwa is the one that has to perform the activity even for farmers in terms of credit.

Marketing of sugar for KSCL is to done by the contracted domestic company, while the sister company of MSE is supposed to carry out the

activity. The Sugar board is responsible for exporting sugar quota to EU market. Foreign company is supposed to transport sugar for KSCL, while for MSE the sugar is to be transported by the sister company

### ***Terms of Contract***

The contract provides a clear defined rules and regulations on how the business should be operated between LFs and FA; it is popular known as the cane supply agreement.

The contracts between KSCL and KCGA and RCGA were signed in 2006 and serves for three years, while the one between MSE and MOA was signed in 2007 and lasts for two years. Before these agreements both parties in all places used interim contracts. This study deals more with the signed contracts, with reference to the interim contract to show the changes or improvement whenever, necessary.

### ***Role of the LF***

Both LFs are obliged to crush all cane from farmers according to agreed estimates and schedule. LFs are also supposed to operate their machinery at agreed standards to maximize sugar extraction. Other obligations vary to a greater extent. MSE is supposed to provide assistance to farmers to increase production and quality in collaboration with MOA whenever possible; develop, repair and maintain infrastructure and develop boundary for fire breaks.

Contrary to this KSL obligation does not include the support of farmers rather it emphasises the quality assurance part by making sure that the varieties of the cane respectively grown in the supply area are those authorised by Sugar Research Institute or relevant Sugar Industry Regulations. KSCL is obliged to prepare and present to the association the estimated and actual payments to each grower. Make available to associations the final audited accounts, and allow them to assess those accounts at their own cost.

### ***Role of the Farmers Associations***

FAs in both cases are obliged to make sure that a registered cane grower is responsible for developing his/her cane fields in accordance with the prescribed standards. Sell the cane only to the Millers and allow farming operations to be inspected. Additionally MOA is to provide services to farmers with assistance from the LF.RCGA and KCGA have to make sure that no additional canes are planted in areas other than that of registered grower and deliver agreed activities timely.

### ***Delivery, quality, price and payment***

The quality and quantity of the sugar is also a function of the time from harvesting to crushing. In both cases harvesting and delivery schedules are drawn by both the LF and FAs. Canes are supposed to be delivered within 48 hours to MSE and 45 hours to KSCL after burning. Canes supplied to the mills are supposed to be mature at 10 to 12 months for ratoon<sup>3</sup> and plant cane respectively and have a minimum of 8% sugar content.

Price is supposed to be determined by using international standards system of Division of Proceeds (DOP)<sup>4</sup> KSCL is supposed to use this system with the percentage of the net division proceeds for producers 53% and 47% for miller. Producers are supposed to gain one point for every season (year). MSE is supposed to use partial DOP<sup>5</sup> with 52% for producers and 48% for the miller. MSE payment to farmers is supposed to be made on or by 15<sup>th</sup> of the following month after delivery of cane, while KSCL is supposed to pay farmers within 15 days after the delivery of cane.

#### ***Draw and Monitor of the contract***

In both cases the contracts are supposed to be drawn before the harvest seasons starts. The LFs are supposed to draft the terms of contracts and allow for FA to negotiate signing is done. Operations committee and board which comprise of members from the LF and FAs are supposed to be in both places respectively to monitor the implementation of the agreed function of farmers. Both bodies deal with harvest and delivery estimates and schedules to ensure smooth operations. Operational board in Kilombero conduct additional roles which include settling disputes which may arise between parties or within the associations, which are not otherwise, required to be referred to arbitration pursuant.

#### ***Sanctions and rewards***

Sanctions are to be applied in cases when the delivery and quality of the cane is low. MSE may reject cane if they are not delivered within agreed time and cane whose purity below 80%. KSCL contract stipulates that it may reject cane delivered whose purity is 80% lower and those exceeding the agreed tonnage. Penalty is to be applied in cases where the cane delivery exceeds agreed time. The bonus in both places is supposed to be available to the farmers when the sugar quality is higher and is able to fetch good prices.

### **3.8 Actual implementation of the contract**

#### ***Phases of the Value chain***

Sugar supply chain starts with cane production done by both the LFs and farmers in both cases. Harvest for farmers cane in Mtibwa was done by the LF since privatisation and one year after signing the contract. Starting 2008 season this service will be done by the FA. The case in Kilombero and Kilosa

is as stipulated in contract that FAs are involved in harvesting. Before the current contract LF was providing these services and decided to give opportunity for the FA to handle them (RCGA, 2006).

All LF are involved in processing, refining and packing sugar. The marketing and transport of sugar for MSE is done by sister company, while KSCL has contracted a domestic company for marketing and a company from South Africa for transport. The Sugar board is responsible for exporting sugar quota to EU market.

### ***Implementation of the agreed terms***

#### ***Lead Firm.***

The two cases present different scenario when it come to the implementation of the agreed terms. Major difference between two LFs is the implementation of agreed terms that are crucial in SF enhancing quality and volume of product and business competitiveness in general. The terms include Agricultural inputs, attractive price and timely payment. Ironically the difference is based on the fact that domestic LF is not honouring the contract to fulfil the above crucial terms. In contrary, the foreign LF is abiding to the contract and has taken further step to invest in SF although this is not part of the agreed terms.

MSE provided assistance on farm inputs, extension services, land preparation and harvest during the first two years (MSE 2007). But later the LF stopped to provide assistance on production and remained with harvesting. Respondent from the firm gave the reason that *'The firm could not stretch itself to cover all farmers who were increasing in numbers'*. Views of respondents from FA and SBT show different picture when asked for the reason for the LF to stop assisting farmers. A response from one respondent which capture other view state that *'Mtibwa stopped the support for farmers because it wanted to compete with the farmers in the production of cane whose production was increasing more because of the ready available market for the crop'*. This view might hold water when considering the report by NEI (1997) which show that at time of privatisation the farmers were supplying more than 50% of the cane.

Moreover, according to MOA, outgrowers unit which was started by the LF to provide guidance and technical is working more to safeguard the company's interest than to support farmers to improve the yields in the cane fields. MSE machinery do not operate at agreed standards, which results to loss of amount of sugar (regardless of the content within the cane). For instance, the mill is crushing 12.6 tons of cane to produce 1 ton of sugar compared to KSCL which produce the same amount of sugar by crushing 9.2 tons of cane (Matango, 2006). Loss of sugar implies loss of payment on farmer's side. Under the current payment system, the farmer is paid according to the sugar estimated to be extracted from the supplied cane (sugar content tons). Tons of sugar made is the product of cane (quality and quantity) and machinery efficiency.

Various interviews including the one with LF indicate that payment for farmers were delayed since 2004. This affects reinvestment for following

season. One respondent narrated that *'the payments from LF delay for about 4 to 6 months, this make it difficult for us to fulfil our need and prepare farms for coming season'*. Supporting this idea another respondent said that *'We depend much on the cash from the sold cane to pay for school and hospital fees, buy food and other needs, when it is late we are much affected. Delays also affect our non-farm activities because we have to use meagre income and even capital to make us survive'*. This means those managed to reinvest have done that with difficulties and possibility to be subjected more to vulnerability. In critical situation other farmers has opted out of cane production. According to MOA about 7,700 hectors have been destroyed and 2,500 ha of cane were turned to other products and 434 farmers have abandon sugar production (MOA, 2007).

MOA is claiming that there is an element of cheating on sucrose content for farmers' cane. The contract provides that cane with less than 8% sugar content will not be accepted by the LF unless there are negotiations between the two parties. The respondent said that *'After long suspicion on cheating, we decided to take farmers samples to be measured by KSCL in 2004. Sample taken to Kilombero graded the cane to 12, 12.6 and 13% while the samples taken to Mtibwa read only 5, 6 or 7% sugar content'*. Though this was not confirmed by the LF, it implies cheating and underpayment for SF. MOA requested for compensation of 300 Million Tshilling but the LF has so far paid only 81 Million Tshillings (MOA, 2007). The matter was taken to the Weights and Measurements Agency which wrote a warning letter to the LF.

As discussed earlier coordination by KSCL portrays a picture contrary to that of MSE. Interview with KSCL indicate the philosophy to provide market opportunity for SF and not direct assistance. However, LF has been from time to time investing in farmers to realise economic expansion and competitiveness. In the first two years the LF invested in SF to increase quality and productivity. Assistance provided in terms of land preparation and farm inputs. As the case in Mtibwa the respondent from KSCL revealed that *'KSCL could not provide direct assistance for subsequent years because it could not stretch itself to suffice growing number of farmers which means also increase in area of cultivation'*. Instead the LF decided to start the trust fund in 2003 with the aim to assist the farmers to increase productivity, promote enterprising and helping the community around the mill. The trust was started by farming a leased land of 1,200 ha from the village. The money obtained after selling the sugar cane was directed to the trust. Later the trust attracted funds from different donors such as African Development Fund, UNDP, DAI PESA, and DFID and connected some donors with FAs (KTFC, 2005).

Donor have provided loan to the FA for training on good husbandry, management of the association and harvest and supply services and buying agricultural inputs. However, the constraints of farmers to access enough fertilizers at affordable price could not be realised because the assistance was on adhoc basis, and not enough to meet the required inputs for the production. To solve this situation the LF agreed to make retention of 5 percentages from farmers, payment to allow for the purchase of the inputs. This was confirmed by the respondents from FA who said *'we discussed with KSCL on the issue of providing direct credit for farmers because the assistance we have received for buying inputs are not enough for all farmers, and some credits have higher interest'*.

*This is has made farmers not to use enough fertilisers. Fortunately, KSCL have agreed, therefore we will be able to get fertilisers at lower costs .*

The LF allowed the FA demand to assume the task of harvesting. Having no experience in the area of management the LF decided to assist FA to manage the above mentioned activities through the trust fund. The assistance include advise on management issues such as paying salaries of the field managers in the first two years, purchase of cars and set up of the radio call system. On top of this the LF is providing its transport fleets to assist farmers to harvest when their fleets are overloaded.

Other agreed terms such as price set, draw and monitor of the contract, and sanction and rewards are implemented with both LFs as stipulated in the contract though with little differences. The price is set according to the agreed system which if full DOP for KSCL and partial DOP for MSE. Both LFs have been able to fulfil their corporate responsibilities over time. MSE in spite of delaying payment has managed developed and maintained infrastructure around areas surrounding the estate and farmers amounting to Tsh. 1,436,100,000. On the other hand KSCL has been able to also able to do that through the trust fund. In comparison KSCL has contribute much to the maintenance and development of the farmers' infrastructure.

The contracts are drawn before the following seasons and it involves both parties. These contracts were signed after a long struggle between parties on issue of pricing. For nearly seven years setting price has been an issue for both parties, while LFs though that the price that they were offering was fair, FA were not satisfied. FA has to threaten LF with 'no increase in price no cane harvest'. This strategy worked with KSCL whereby despite offering higher price than MSE had to adopt the DOP system international with fear of loosing the business. But for the case of MSE, SBT had to intervene to make it agree to use partial international system (refer to DOP system) after a delay of harvest for about two month in two seasons 2005-2007. This implies that MSE was willing to loose the business than paying more to the farmers because they did not agree.

Both commitees work to greater extent with harvesting and supply of cane schedules. Monitoring of production is dealt with to lesser extent by following up on projections. However, KSCL go further to make sure that the seedlings used are recommended one. Much of the monitoring of production is left to the FA.

The burnt canes that fail to reach the mill within 45 hours and 48 hours form KSCL and MSE respectively are considered to be not suitable for producing quality juice hence is rejected. This implies that KSCL has set higher standards that MSE. In practise KSCL has not been report to reject the canes but charge a fee of .5% per tone of canes that exceed the set time but still have quality sugar content. On the other hand, MOA has reported that there are number of rejection of cane that fails to reach by that time. This is the burden to the farmers given the fact that the LF does not provide assistance and in some instances the LF delay to transport the canes from the field. The bonus is available to the farmers as stipulated in the contract.

In general MSE has failed to establish a good relationship with FA as it is characterised with antagonism and mistrust. Contrary, KSCL has managed to

establish a cordial relationship with the FAs. This is important for the growth of both parties as it promotes good business environment. Moreover, it might be one of the reasons that the LF has remained competitive. This is discussed more on subsequent sections.

### ***Implementation of agreed terms by FA***

In general FAs in both cases have managed to fulfil their obligations as stipulated in the contract but with varying degree. Whereas RCGA and KCGA were able to fulfil most of the obligation, MOA could not fulfil its obligation fully. The reason is that while the former FA got assistance from the LF, the later received limited assistance. FA in both places has assisted farmers to manage their farms through provision of inputs credits, training on various farm management and agricultural practises (KCGA 2006, MOA 2007, RCGA 2006). FA managed to provide these services through soliciting funds from donors, central government, forming SACCOSS and providing guarantees to financial institutions such as NMB and CRDB. However, performance of MOA member in loan repayment is not good because of delay of payment from LF. For example in 2006 farmers could not repay the fifty percent of loan was supposed to be serviced.

This resulted to the confiscation of the farmers' properties by some institutions which subjecting farmers to vulnerability and poverty. FAs have also managed to get assistance from the local government in terms of the extension officers to assist farmers. However, few farmers interviewed have reported that they do not get the assistance from extension officers all the time (MOA, 2007).

FAs have fulfilled the obligation of selling their cane only to the LF. However, respondent from FA is of the opinion that *'if there could be any miller nearby or if Kilombero was not that far we could have opted to sell cane to KSCL because of good price and timely payment'*.

KCGA and RCGA are performing other duties that are not part of contract for MOA. They include supplying cane that only come from the registered farmers and harvest according to agreed schedule (KCGA 2006, RCGA 2006). These roles for short term might cause delays and loss because of limited resources such as fleets with good condition and limited experience for FA. However, for long term they provide opportunity for farmers to enjoy economies of scale and develop enterprising.

Other roles that the FAs perform as the part of their obligations to the members include the negotiating with the LFs and lobby the government. These associations used different tactics to negotiate with the LF and managed to sign contracts which increased benefits to farmers. MOA have struggled much with persistence to negotiate on price and payment than other FAs. The association has made efforts to overcome problems posed by the LF through writing letters, having negation meetings, delaying supply of the cane to the miller for three years 2005-07 in vain. It has approached different leader, political and administrative, however, no solution has been reached. The sugar board have tried to help on the issue of price which enabled the current contract to be developed, but nothing fruitful have been done by both local

government and central government leaders to solve the issue of timely payment.

The formulation and operations of the Sugar act was a contribution from FAs lobbying.

FAs also plays social role by contributing to the maintenance of the road and to build schools. During the field work the payment register for contribution was witnessed, each farmer contribute around 1,000 Tshillings per tone for these activities..

However, FAs are not without limitations. Contracts are made in English a language which is known by very few farmers. This questions the process of arriving at demands to send to LF, which might means the represented ideas are those of the elite in the group. .

Private interest governance is exercised within members of famers associations. However, this role is implemented to the lesser extent because FAs can not enforce the laws especially making farmers abide to terms because of limited funds and management capacity

### **3.9 Relationship Between the LF with other actors**

#### ***Local government***

To a greater extent the relationship between the LFs and local government (LG) are centred on the social and economic issues. LFs are paying cess to LG and also send those of farmers. This contribution is made with the view that will be used to finance plans for the district which will benefit the farmers and LFs in terms of infrastructure and other social issues. Interview with MSE reveal that it has requested LG to maintain and upgrade roads that are passing in SF farmers and to LF's new farm in Dakawa.

On top of contribution to LG, LFs contributed to different development issues in the community surrounding the mills. Contributions include building and maintenance of schools, roads, dispensaries, police stations and courts. While MSE contribute direct from its own sources, KSCL is using funds from Trust.

#### ***Central government***

Both LFs have sought assistance from central government to enhance the chain. Assistance range from production of sugar cane and related products to marketing of sugar. MSE lobby government for tax reduction of diesel, irrigation machinery and VAT (MSE, 2007). It also lobby for policy change to allow the production of other sugar related products such as alcohol and



electricity<sup>2</sup>. KSCL on the other hand has lobbied the government to assist farmer's production in terms of input credits and training. For example KSCL through Ministry of agriculture have managed to secure funds that are used for trial of block farming scheme for SF<sup>3</sup>. Both LFs have lobbied for the government to deal with sugar smuggled in the country. The difference between the two LFs is that while KSCL lobby for assistance for both farmers and itself, MSE request focused more to benefit the company.

### ***NGOs and Donors***

The sugar value chain in Morogoro have benefited from NGOs that are not domestic based. Although there are NGOs that are working on agriculture in the respective districts none of them work in the sugar industry. KSCL has forge linkages with various NGOs and donor to get assistance for chain organisation. More details on the name of the NGOs and donor, amount and the activities performed are attached in appendix 1.

### ***Banks***

LFs have enabled the farmers to get loan for agricultural inputs from domestic banks. Before that banks could not provide loan to the SF because they are involved in risk business and have no collateral. However, the delay loan repayment by farmers supplying to Mtibwa has hindered them to enjoy the benefit. This is caused by MSE delay of payment. Interview with MOA has revealed that some farmer's belongings have been confiscated by the banks because of the delay of the payment of outstanding loans

## **3.10 Role of other actors**

This section discusses the role of other actors to increase the competitiveness of the LF and farmers without being contacted or contracted by the LFs.

Local governments have been given legal mandate by the Local government act of 1982 to develop linkages with private sectors, NGOs and other stake holders to promote LED. The LGs specifically plays facilitation and enabling role to enhance the other actors to plan, prioritise, and invest to improve domestic economies. Moreover, the LGs provide social services that aim at building capacity of domestic citizens participate in development.

LG provide social services to the SF community to enhance their capacity to undertake challenges. It has also allocated 10 extension officers that are responsible of dealing with sugar cane farmers only. LG supply subsidized inputs to farmers in all districts; however the needs for sugar cane farmers are higher than could be supplied. In this case the LG give the FAs permission to go and buy from the industries. With limited funding LG mostly deals with repairing roads with gravel status, which are passable only during dry season. Cane supply is affected by the bad roads which in turn increase the cost of

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transport and reduces benefits for farmers. In general, LG have done little in providing support to the areas where farmers live. They depend much on the corporate responsibility of the LF to provide the services.

Central government have enhanced making policy concerning the production and operations within the sugar industry. The sugar board is established to oversee the implementation of the policy and all legal matters. The Research Sugar Institute has been allocated the responsibility of training farmers. However, the institute is constrained with funding.

### **3.11 Analysis of the Findings**

#### ***Value chain Organisation***

The experience of sugar chain coordination by two private firms in Mtibwa and Kilombero provide an interesting case. Empirical findings indicate that performance of the supply chain in agro-business is much determined by relationship between LF and farmers and the behaviour of the LF. The case illustrates difference in strategies employed by foreign LF and domestic LF in coordinating the supply chain of sugar.

Foreign LF recognised that SF importance for its growth and competitiveness in sugar business. Therefore, it decided to establish good relationship with SF by honouring the contract, invest in SF to increase quality and volume of their production and offering good price for the cane. KSCL provided saction that are geared to enhance SF reach standards than being excluded. As a result SF cane production has increased, data from the field show that the production increased to reach a maximum of 598.609 tons in year 2006 accompanied by increase in quality to reach 13% sucrose content and unit production amount to 44 ha per ton (EU, 2007). Increase in the production of SF has enhanced KSCL to realise higher production to reach a situation of considering expansion. Respondent from KSCL said that *'The production of cane from farmers has increased over last four years to the extent that the Mill could not absorb all the cane from SF. This has demoralised some of the SF to continue producing, which means it might affect the Miller. Therefore, the management is thinking on the ways of expanding'*. The respondent could not give more details because the issue is still on early stages. The performance of KSCL is discussed in detailed on the following chapter.

On the other hand the operation of the domestic firm in Mtibwa portray contrary picture with that of the foreign firm. MSE is also recognising the contribution of SF in realising high production. However, MSE has not operated to maximize farmer's contribution. It has difficult relationship with farmers because it is not honouring the contract by delaying payment and accused of cheating on cane quality. It is not investing in farmers to increase quality, and does not offer good price compared to the market and foreign firm. MSE also is alleged to provide negative sanctions to farmers that lead to exclusion or loss.

The behaviour of LF has resulted to constraints on part of SF to increase production and quality. Results indicate that production of SF in Mtibwa has been fluctuating without any remarkable increase. SF reached the maximum of 259,854 tons in 2005 with 9.7% sugar content, and unit production of 38 tons

per ha (EU, 2007). This performance is below that of SF supplying to KSCL. This in turn affected performance of MSE which has not managed to reach targets set.

Difference in strategy by LF and more difficult relationship between outgrowers and domestic firm is much explained by incompetence and business with political behaviour. Business competence and freedom from political patronage enabled KSC to coordinate the supply chain well since it is a subsidiary of Illovo Sugar Company which has long and recognised experience in sugar industry (KSCL, 2006). This supports the reason LF is honouring contracts, offering attracting price by using international paying system with fair percentage, and investing in SF. Experience enabled KSCL to establish trust fund and get leverage from donors and other actors enabling farmers to get assistance without constraining LF.

Contrary to KSCL, MSE has weak business competence because it came into the industry with transportation experience thus processing was not its core competency. Following divestiture report for sugar factories prepared by NEI (1997) MSE failure is obvious. The report proposed factories to be privatised to companies which are active in sugar sector. preference given to foreign investors since no domestic companies could provide requisite technical, managerial and financial inputs.

In early years MSE employed management from Mauritius which had experience in sugar industry to provide technical skills. The arrangement could not capacitate MSE much because it was for short time. Some respondents stated that MSE has no good management with relevant capacities as one respondent said *'the company has no management that is competent in sugar industry, it involves people who have mechanical experience on the top position'*. Another stated that *'MSE is not performing well because there is no steady management; it has been changed for several time'*.

In this regard MSE opted to use political patronage to survive in the market. This is reflected in its behaviour to abuse its market position to the detriment of the outgrowers. For example MSE is affording to delay payments for SF, and sometimes denying them harvesting services contrary to the agreement. Although MSE argue that *'We do not pay the farmers on time because of the cheap import sugar which affects our capacity to pay farmers'*. But, all responses regarding behaviour of LF indicated that *'The owner of MSE is a friend of one the former president whose cane farm is taken care by the LF; therefore it can afford to default'*.

Political patronage is also reflected in other instances; first government sold all its shares<sup>6</sup> to the company contrary to the agreement that it could sell them to the public and outgrowers<sup>4</sup>. Later, when the matter was discussed to the parliament, the government defended itself that MSE had to sell to farmers 15% of shares when 100% shares will be given to them . However, MSE has not acted on that and nothing has been done. Farmers through MOA reached various leaders both political and government to deal with the situation but nothing have been done. One respondent put like *'We have presented our grievances*

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<sup>4</sup> Study by NEI shows that outgrowers had already contributed funds to buy shares. Interview with MOA confirm this but MSE returned their money and the next thing they heard is that the shares have been sold to the company.

*with the processor to different leaders but after talking with us they just visit the mill and leave without saying anything. We know leaders are favouring the processor because he is taking care of the farm of the former president, therefore the owner is part of them'.*

This means MSE to continue operating ineffectively because of the political patronage. But of course is effective in such a way that it is still profitable at higher level of inefficiency with bad relationship with farmers. In other words, MSE is operating using road downward rather than upward because they are paying farmers badly, they are very inefficient but continue to operate using political patronage that protect them from farmers who seek government intervention.

This brings us to the point of chain captivity. The empirical results reveal that even though the chains have FAs to enhance collective action, investment to start refining is just prohibitive among farmers, therefore, making the chain captive. This is the case for the supply chains in Mtibwa and Kilombero where the FAs have no capacity to invest in refinery and absence of other refineries in the neighbourhoods. While the behaviour of MSE makes the chain captivity generates negative aspects by limiting the options for farmers. Though KSCL chain is captive counter intuitive findings reveals that it is not always bad since it strategically generate high productivity through investing in farmers' quality and paying good prices.

### ***Role of Farmers Association***

FAs in Kilombero and Mtibwa provide opportunities for the farmers to access knowledge, get services, influence the government and negotiate with the lead firm for better contract terms. They have enabled members to undertake collective action which enhance economies of scale, increase skills and capital to expand their enterprising and increase their competitiveness.

The most important roles that enhanced farmers' position in the chain are representing members and providing services. FA in both districts bargained for good prices and terms for SF. This resulted to the adaptation of international payment system and signing of contract between lead firms and associations. However, farmers in Mtibwa only got a partial implementation, nevertheless it was progress. FAs also managed to provide services such as training, loan, and inputs to SF to increase their competitiveness. MOA, was very strong to play this role because it had to struggle to attract assistance from different sources that helped SF. KCGA and RCGA got most assistance from LF.

Implementation of private interests for all associations was weak. Individual farmers are responsible for practising good farming. There is no mechanism to monitor standards of products or best practice. Sanctions depend on those provided by LF. This has affected farmers' productivity. It was noted that services were provided in ad hoc and limited basis meaning that farmers are still faced with shortage of crop husbandry and entrepreneurial skills. This situation has hindered the performance of the farmers in Mtibwa.

Associations through collective action have increased negotiating power to farmers to access services and enhance their position; however, dependency on LFs reduces bargaining power. Moreover, the associations have limited

resource and technical capacity to deliver. KCGA and RCGA have been reported to delay the harvests and sometimes seem to work on favouritism.

### *Upgrading For SF*

SFs are faced with challenges of limited knowledge, information and technology to be able to respond timely to changing standards. Introduction of; machinery for preparing land, approved seedlings, increase transfer knowledge on farming, and enterprising have enhanced increase in production and quality of product. This implies that upgrading in the value chain have occurred in process and product. Improvement in process involves lower cost production, while in product is increased quality of cane (sugar content) and volume (yield per ha). More process upgrading has been in logistics accrued by FA supplying cane to KSCL. Some improvement is seen in time used to reach the mill (market), especially in areas where infrastructure have been repaired or built. Farmers in Kilombero have accrued gains from using DOP payment system.

In spite of the fact that CF has shown some level of upgrading in Kilombero than in Mtibwa, farmers have not fully utilized the modern way of production. Farmers use limited knowledge on fertilizers, weeding and strive to produce at lower cost to get high yield. Because of the survival nature of small-scale farming, SF diverts some of the credit to other pressing needs. Systematic strategies need to be in place to help farmers to change their old perceptions and open their mind to accept new ways of practising. Block farming is one of methods that can enhance the use of modern practise through collective learning. This is not to say the partnership has not played part in SF upgrading.

## Chapter 4

### Outcome

#### 4.1 Implication of Lead firms and upgrading of SF

The data presented earlier show that foreign LF employ strategies that are inclined more to forge partnership with SF to generate superior productivity, while the domestic LF related badly with SF and abuse market position. The difference is indicated in terms of assistance to SF, prices, follow up on the implementation of the agreed terms and comply with obligations. As a result foreign LF has increased its production capacity which improved their competitiveness and enhanced their market position compared to the domestic LF which has low production though is still surviving in the market.

Data from the field divulge that KSCL has increased its sugar production to reach 136,000 tons by 2005/06 surpassing the first phase target of 103,000 tons for the same year (STB, various years). Moreover, KSCL has increased and strengthened its capacity to produce more than 50% of total sugar production in Tanzania (SBT various years, sugar estates). MSE production has been fluctuating to reach the maximum of 49,000 tons of sugar in 2005/06, which is below the target for year 2003 (50,000 tons).

Therefore, experience from Mvomero and Kilombero show that the foreign firm compared to the domestic firm managed to coordinate the chain in such a way that it enhanced its competitiveness in the sugar chain, while domestic firm coordination strategies managed to make it survive in the market without being very competent. Difference in strategies provide opportunities for SF that supply to KSCL to realise upgrading opportunities than those supplying to MSE.

#### 4.3 Impact of LED

The researcher realised that there were very limited outsourcing of activities by the LF, hence the supply chain provide limited direct backward linkages. Therefore, this section focuses on efforts done to improve farmer's capabilities. It should also be noted that number of cane growers has increased in all districts from an estimate of 1,000 before privatisation to an estimate of 10,000 in 2007 (STB, 2007). Land that was used to plant crops with uncertain demand ( such as banana) was turned to sugarcane production. However, many SF continue to grow food production for subsistence and risk reduction.

##### *Impact on Farmers*

Although farmers supplying KSCL are performing better than those supplying MSE, generally farmers in both places have been able to acquire knowledge on sugar cane farming through training and extension services. This shows that despite the shortcoming of the lead firm to honour contract farmers in Mvomero are still performing well due to commitment and efforts by their

association and farmers themselves. Quite a number of farmers were able to upgrade their process and increase qualities hence improve market position. This is reflected in the data from FAs and lead firms which show price increase per ton of cane from Tsh.11, 826 to Tsh. 26,500 for farmers supplying MSE and from Tsh.10, 958 to Tsh.34, 647 for farmers supplying KSCL. This means with an estimated production cost at 65% (PASS) farmers get an average of Tsh. 352,450 and Tsh. 533,563 respectively.

SFs would have increased production and quality of the cane if they could use more improved technologies. Use of machinery is limited to land preparations, and fertilizer is used to a limited extent. Because of the nature of the business adequate credit for inputs is not easily accessed. In addition, some SFs who access loans for farming divert them to other pressing household needs.

Farmers have not benefited more from their association because of lack of internal cooperation where they could mobilise internal resources to advance production. During research it was observed that most of the savings mobilised within FAs are used for provision of social services. Although provision of social services is important aspect for farmers to contribute, they could have left that role to be fulfilled by the local government in the short term. This could help them to establish trust funds to finance farming activities and depend less from the lead firms, financial institutions and donors whose services tends to be expensive than the one provided through collective action.

Although farmers have improved their relative market position they are faced with couple risks. Interview with farmers and FA in Mtibwa reveal that farmers experienced delay in payments and denial of harvesting services from the LF. Farmers are faced with the risk where the LF abuses its market position to the detriment of famers. This has forced some farmers to gain loss and even switch to farming food crops. Farmers in Kilombero and Kilosa experienced risk when their produce were less demanded by LF. Attractive prices and timely payment increased number of farmers and increased production exceeding mill capacity. This happened in 2006/2007 season affecting farmers' income and discouraging them from producing with fear of their cane not being harvested.

Some few farmers in both places are faced with food shortage. Study done by Issa (forthcoming) show that cases of food insecurity were rare among sugar cane farmers (Issa forthcoming). The situation happened to few farmers that own very small fields where productivity was also very low; others were those whose cane could not be harvested because of bad weather or accidental fires (Issa forthcoming). In some instances this situation happened to farmer when delay of payment coincided with when family had drained food reserves. Amidst the mentioned risk sugarcane growing is a source of income that is used to meet family expenditure including food requirement.

### ***Initiatives by LF***

As outlined earlier, the impact of farmers' capabilities in sugar supply chain was enhanced much by the LF strategies. KSCL developed sustainability initiatives to improve farmers' capabilities. It decided to start a trust by cultivating a farm of 1,200 ha and attracting donors to invest in the trust. Funds from the trust were used to invest in farmers to increase quality and volume of production. In addition funds were invested in infrastructure to reduce production and marketing cost for both farmers and LF. MSE did not develop a suitable strategy to improve SF capabilities. It used its own limited funds to build own infrastructure hence concentrated less on roads serving SF. MSE could not continue to invest in farmers to increase production ending up establishing bad relationship with farmers after abusing its market position. This affected the improvement of farmers capabilities to participate in the supply chain.



# CHAPTER 5

## THEORETICAL REFLECTIONS ON THE CASE

### 5.1 Value Chain

Contract farming as a method of strengthening integration can lead to upgrading of SF. SF when operating on arm length markets are always constrained with poor access to market, limited access to knowledge and information. Therefore, it was crucial to SF to be linked with the private lead firms after the reduction of the government involvement in sugar industry. Glover (1997) and Shawki (2004) argue that CF can enable SF to access the external market it can also enhance innovations in production process through technology transfer. However, the findings reveal that strategies used by the lead firm to govern the supply chain determine realisation of advantage and/or disadvantages of the CF.

Literature on the foreign direct investment provides that foreign firms are likely to invest in area with strong domestic capabilities (Altenburg, 2000; Lall, 2004). However, experience of sugar industry in Morogoro discards the above argument because foreign LF provided business opportunity to SF who had limited capacity to reach the higher standards set by LF. Kaplinsky and Morris (2000) provide that governance is important in the supply chain and it involves setting standards or parameters of operation. They argue that the governor has to assist supplier to meet the standards. Moreover, in this era sanctions are geared towards assisting supplier rather than excluding.

KSCL applied governance strategies that geared to enhance realisation of the potential of the supply party to generate higher production. It assisted investment in farmers to increase quality and volume of cane, provide good price, managed to establish good relationship with SF and honour the contract. KSCL also involved in monitoring quality of produce by making sure of use of quality seedlings. The sanctions provided by KSCL to farmers were geared to assist them to reach standards rather than exclude them from the chain. There was no report of the rejected cane from farmers, insignificant penalty was provided to those that delayed supplying their cane to the mill 45 hours after burning. In this case, KSCL managed to behave strategically to generate superiority in sugar production because it possesses high business competence gained from sugar refining experience and exposure gained from the parent organisation. For instance, KSCL decided to assist farmers through established trust instead of providing funds directly from its profits which could limit it. This arguments confirms the literature that TNC competitive advantage is derived from technology, superior intra firm hierarchies which across boundaries and advantage of common governance (Carson 1995, Lall 2004).

Contrary to this picture the domestic LF has portrayed different picture which show that it did not utilise full the potential of farmers to realise its productivity. MSE set rules and parameter that could enhance chain coordination however, it did not apply the executive governance as provided

by literature (Kamplinsky & Morris 2000). Ironically it is the one that abuse the contract by not honouring it, delayed payments to farmers, did not invest in farmers to improve quality, paid bad price to realise its objectives which is to be highly competitive sugar producing company. It also provided sanctions that excluded some farmers. This is reflected on rejection of the cane from farmers that have delayed to enter the mill, while it is the one that is dealing with harvesting of farmers cane.

Contrary, to the current trend in business, domestic LF exclude instead of integrate SF. As a result the domestic LF has not managed to realise its targets. However, it is still surviving in the market. This behaviour of the domestic LF can be explained more by the fact the lead firm had weak competence because it entered the sugar industry with transport experience instead of necessary competence in sugar cane production and processing. Therefore, it managed to survive because of the use of political patronage to withstand pressure and dissatisfaction of the farmers who had started to make representation against the government. This argument confirms the literature on governance and entrepreneurs in developing countries which contends that business strength of the entrepreneur groups that secures economic opportunities basing on their close association with the state does not lie in entrepreneur and innovations but being in the know how and privileges access to state resources (Helmsing 2005, Taylor 2002).

Supporting institutions are strategically positioned to enhance value chain operations and upgrading of SF. Governments may act to regulate the market and enhance farmer's participation in CF through provision of services (Best 1990, Eaton and Shepherd 2001, Simmons 2002). However, due to unclear policies, legal framework and limited financial capacities, government in developing countries rarely play this role. The case of Mtibwa and Kilombero falls under this category. The SBT was established to oversee the implementation of the policy and all legal matters within the sugar industry but could not intervene to make the domestic lead firm pay the famers on time. Nevertheless, the local government is providing limited assistance to both value chain operations in terms of infrastructure repair, extension services and provision of social services. This finding is relevant to the literature that portrays a picture that albeit, Local governments have legal and policy mandate to provide assistance to the farmers they tend to have weak capacities in terms of technical and finance aspects ( Helmsing, 2005). NGOs and donors provided services, expertise and credit to farmers and lead firm strengthening the chain process. The foreign LF value chain in Kilombero benefited more from this than the one organised by the domestic LF in Mtibwa.

The sugar chain in both areas is faced with common challenges associated with chain coordination and operation. The value chains in both districts are captive in nature. It is argued that captive chains results to unbalanced power relationship which easily leads to exploitation of the powerless (Gereffi & Sturgeon2005). The empirical study shows that even when the supply chain has the FA the investment for establishing refining is prohibitive with the absence of the refining factories in the neighbourhood lead also to captive chain. But having a captive chain does not always lead to bad results. In this case the

domestic LF captive chain resulted to bad results compared to that of the foreign LF firm which resulted to good one. In general, the behaviour of the LF determines the outcome of the captive chain, but it should be noted that there is an incentive opportunity for the domestic LF to use political patronage than the foreign LF.

## 5.2 Farmers Associations

Competitiveness of farmers in the supply chain depends much on collective efficiency. The way the farmers are organised to undertake joint production and marketing enhance collective efficiency. To realise the above FA can assume multiple roles (Levitsky 1993, 1999), which include representing their members, lobby for more favourable economic policies, provide service and exercise private interest governance.

FA in the study area entered a contract with LF on behalf of the farmers to enhance representation of farmer's issues and negotiations for better prices and practices. The negotiations facilitated the increase of prices for farmers over years. Moreover, FAs have influenced the government to include farmers' interests in the policy governing sugar industry. These efforts reduced transaction costs of parties involved by reducing contractual risks and enhancing fair share of profits for farmers (Bijman and Ton 2008).

Knowledge transfer and learning is important to enhance farmers' position in the supply chain. Shiferaw (2006) and Weijland (1999) assert that FAs are crucial instrument for farmers to realise their potentials to meet the standard needed along the supply chain. Through collective action FAs in Kilombero and Mtibwa provided training for farmers on enterprise and modern farming practise to increase quality of the cane. FAs also facilitated farmers to be able to access farm inputs in credit form through soliciting funds from different donor, guaranteed farmers to access funds in financial institutions such as CRDB and National Bank of Commerce. Collective action and collective learning reduce transaction costs and increase economies of scale.

Service provision and farmers representations are major role of the FAs that enhanced the success to increase farmers learning, knowledge transfer and reduction of farmers risk and enhance fair gain within the supply chain. Helmsing (2005) define private interest as regulatory function performed by associations, especially establishment of norms and standards for products, best practices and code of conduct. Unfortunately, this role is performed to a limited extent by FA in both places. The success of these roles lies in the trust developed among members in the group as argued by White and Runge (1995) which enhanced cooperative behaviour. FAs encouraged the engagement among farmers and meetings to discuss farmers' issues, and elections are undertaken as stipulated in the constitutions.

Farmers in Kilombero has benefited more than those of Mtibwa in getting services from FA. This is the issue because FA in Kilombero receives assistance from LF in terms of resources and technical advice to provide

services. The performance of FA in Mtibwa is hindered by the limitation of the funds, antagonistic nature present between them and the LF.

Although FA provides standards for farmers to reach, norms and how to best practice on farming, there is no mechanism for enforcement of these terms. Sanctions, for example as a result of low quality cane and few yields depend much on those applied by the LF. Therefore, it is more individual responsibility. Lack of management and financial capacity among FA in all areas make it difficult for the enforcement of the private interest.

With the above remarkable role FA in Kilombero and Mtibwa are without limitations. They are faced with the challenge of depending much on the Lead firm for assistance. This reduces their bargaining power. Moreover, the associations have limited resource and technical capacity to supply the deliveries especially on the management level. KCGA and RCGA have been reported to delay the harvests and sometimes seem to work on favouritism. However, the associations through collective action have increased power for farmers to negotiation and get necessary services to enhance their position in the supply chain.

### 5.3 Upgrading

SFs are faced with challenges of limited knowledge, information and technology to be able to respond timely to changing consumer tastes and preferences. It has been argued that CF can be an effective means to transfer technology to SF and hence enhance upgrading (Glover, 1997). This is the case for the localities under study whereby upgrading for SF were limited to process and product upgrading. Introduction of use of machinery such as tractors for preparing land, training and exposure for practise of improved farming practises and access of agricultural inputs enhanced the process upgrading for individual farmers and more to FAs. FA that supply to KSCL are the one that has improved in process because they assumed the logistics part of the chain. The implementation of the improved process in turn led to increase of the product volume per unit and quality.

This finding is in line with other analysis that commodity chains provide limited upgrading to SF (Gibbon, 2001). Interestingly, though the value chain upgrading has shown limitation on SF upgrading it has helped to illustrate how different coordination strategies used by LFs provide possibilities or difficulties for upgrading or/and exclusion of SF as argued by Gibbon (2001). The chain coordinated by KSCL influenced positively the upgrading of SF and FA because it used business strategy which established partnership and harmonious relationship with involved parties. The LF provided assistance to farmers to increase quality and FA undertake their roles, paid good price and on time. The chain coordinated by the MSE caused difficult for the farmers and FA to upgrade. The LF did not honour the contract by delaying payment for farmers, could assist the farmers to increase quality and paid low prices. The upgrading in this chain was much enhanced by effective FA which

struggled to outsource donors to assist farmers. The difference between the two chains confirms the hypothesis that the advantage or disadvantage of the CF is determined by the relationship between LF and involved parties. It also involves the LF behaviour. Therefore, it is important to analyse each supply chain to identify the shortcomings and upgrading possibilities.

In spite of the fact that CF has shown some level of upgrading in Kilombero than in Mtibwa, farmers have not fully utilized the modern way of production. Farmers use limited knowledge on fertilizers, weeding and strive to produce at lower cost to get high yield. Because of the survival nature of small-scale farming, SF diverts some of the credit to other pressing needs. Knorringa (2002) ascertain this behaviour as a critical challenge of knowledge transfer within such groups of survival enterprises due to limited capacity. Systematic strategies need to be in place to help farmers to change their old perceptions and open their mind to accept new ways of practising. Block farming is one of methods that can enhance the use of modern practise through collective learning. This is not to say the partnership has not played part in SF upgrading.

## 5.4 LED

Privatisation of the sugar industries in Mtibwa and Kilombero provided an opportunity for expansion of the existing economic base for LED promotion. These opportunities were made possible by existence of the natural endowments such as arable land and rivers suitable for cane production and demand of sugar both in internal and external markets. Blakely (1989) argue economic growth of the locality is determined by demand of goods and services from other on the outside a locality and its ability to trade with other localities.

To enhance sugar supply chain operation various initiatives were taken by both the LF and FA to develop and strengthen the farmers' capabilities. Through the strategies employed by LF and FA farmers gained new knowledge, applied modern technology and farming practises. However, the strategies used by the LF differed resulting to different degree of impact. The foreign LF employed its innovative ability to establish the community trust and attract donors to invest infarmers to increase quality and volume of produce. In addition, funds from trust were used to invest in infrastructure to promote business environment by reducing production and transaction costs. The combination of the external and endogenous knowledge enhanced the farmers' compatibility. In turn number of farmers involved in cane farming increased, farmers had descent payment which increased income and assurance of market. The foreign firm increased production and competitiveness position in sugar industry. Helmsing (2001) and Porter (1990) argue that firm competitiveness depends also in the dynamic improvement and innovation for its processes and products.

The domestic firm strategies were not geared to enhance farmers' capacities in turn it led to antagonisms because of the delay of payments for

farmers. In this case the FA had to intervene to seek donor assistance to invest in farmers. Though number of farmers increased their capacities did not develop much as envisaged causing the domestic firm to be less competitive in market.

Therefore, effect of the chain organisation in Mtibwa and Kilombero were felt more at the level of farmers. Blakely (1989) argue that the export firm tend to generate higher job multipliers depending on the sector. The sugar supply chain could not create much backward linkages in the community because of the nature of the business and bulkiness of the crop which needed huge investment.

The foreign LF established partnership with SF through innovative ways which enable both of them to increase production and improve their competitiveness and that of the locality. Whereas, domestic firm although is still in the business have not produced to reach its targets by failing to abide to the contract, and have bad relationship with farmers.

Mobilisation of all actor is very important in addressing local developmental challenges (Blakley 1989). The promotion of LED in Mtibwa and Kilombero and the competitiveness of both actors LF and SF were affected by minimal role played by local and central government. Limited efforts were done to improve business environment which is important for LED.

## Chapter 6 Conclusion

The two cases have shown how differences in strategies used by LF provide opportunities for SFs to realise upgrading. Foreign Lead firm has created opportunity for SF in Kilombero to realise process and product upgrading compared to those in Mtibwa. The foreign firm contract provides opportunity for SF to access market but not direct assistance. However, the implementation of the contract provides a different picture whereby KSCL decided to invest in farmers to increase production and volume of produce. Moreover, KSCL established harmonious relationship with farmers by abiding to the contract, providing good price and pay them on time. This enhanced the reinvestment. KSCL experience and capacity enhanced creation of the trust and attracted funds from different donors to provide assistance to farmers in a sustainable ways. On the other hand the domestic firm employed strategies that geared to less assist farmers contrary to the contract and develop bad relationship which hindered chain operation. MSE contract is not honouring the contract by delaying payments to farmers and not providing assistance. MSE behaviour is caused by limited experience in process and dealing with farmers. Therefore, MSE compensate business incompetence with political patronage to withstand pressure and dissatisfaction of farmers.

However, there is a need to provide assistance to farmers on regular basis to enhance their capacity to produce and learn. For this to happen the LF need to commit themselves more on building the capacity of SF than on getting the supply when they need it. Other actors such as local government, NGOs or donors also need to assist. Most of the time assistance from these actors are subsidized or provided at a non-market rate. This implies that farmers will be in a good position to repay the loans than when they take from financial institutions that operate at market price.

Further analysis has revealed that both chains are captive in nature. However, the case for the foreign firm has highlighted that captive chains are not always bad.

Actors such as farmers association are very important in providing services to the farmers, collective actions and negotiate with LFs. More efforts should be done to enhance their capacity to manage the association especially the business part. On the other hand government which is an important actors to enhance chain production and minimize negative effects on farmers have provided limited assistance both in terms of services and legal system to solve conflict. There is a need for the government to revisit the regulatory system and put in place those that can enhance the participation of both LFs and SF.

The above Suggestions will increase capabilities of both parties to strengthen competitiveness and promote LED

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## Notes

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<sup>1</sup> This study define small farmers as farmers who own and cultivate land below 10 ha

<sup>2</sup> According to the latest independent survey of international sugar production costs covering in excess of 100 sugar producing countries, in 2004-2005 Tanzania already ranked among the twelve lowest cost sugar producers. With continued investment in yield and productivity improvements, it is expected to rank among the ten lowest cost producers in the near future

<sup>3</sup> Ratoon cane refers to the cane from new seedling, while plant cane refers to cane from seedling planted in previous years

<sup>4</sup> DOP is determined by the difference between the cost incurred to produce and market sugar and the revenue accrued. This means SF supply cane but they get share of the sold sugar. The shared cost includes bagging, warehouse, transport, handling and markets costs.

<sup>5</sup> It is simple sharing system based on the prevailing ex-factory sugar price less the shared cost

<sup>6</sup> Study by NEI shows that outgrowers had already contributed funds to buy shares. Interview with MOA confirm this but MSE returned their money and the next thing they heard is that the shares have been sold to the company.

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## Appendix

### Appendix1. Matrix for Lead Firm Performance

#### **Mtibwa Sugar Industries**

Privatised in 1999 as a subsidiary of Tanzania Sugar Industries (TSI) a local firm.

During privatisation the shares for the TSI was 75% and the government 25%. Currently TSI own 100% shares.

TSI has vast experience in haulage, clearing and forwarding.

At privatisation production 32,128 tons of sugar

#### ***Plan***

1<sup>st</sup> phase - 50,000 tons 2003/04

2<sup>nd</sup> phase -100,000 tons per annum

#### **Kilombero Sugar Company**

Privatised in 1998 as a subsidiary of ILLOVO a South African firm and Uk based trading company ED&FMan.

The company owns 55% of shares, ED&FMan 25% and remaining 20% shares are owned by the government.

Illovo is a leading company in sugar production with subsidiaries in other 6 African countries.

At privatisation production 29,580 tons of sugar.

#### ***Plan***

1<sup>st</sup> phase- 103,000 tons per annum by 2005

2<sup>nd</sup> phase- 180,000 tons per annum.

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**Growth**  
***Productivity***

Productivity - fluctuating with a maximum of 49,000 tons of sugar in 2005/06. Could not reach the 1<sup>st</sup> phase target

***Farmers productivity***

Farmer's productivity has been fluctuating, reaching the maximum of 259,854 tons of cane in year 2005.

The quality of sugar cane has increased slightly to reach an average of 9.7% in 2006.

The production per unit area has also increased to 38 tons per ha by 2006.

The trend of price for cane has increased at a lower rate over time from Tsh.11,387 per tone of cane to Tsh.26,500.

**Growth**  
***Productivity***

Productivity - increased over years. Exceeding target of 1<sup>st</sup> phase (2005-136,941 tons)

***Farmers productivity***

Productivity increasing over years, reaching a maximum of 598,609 tons of cane in year 2006.

Quality of sucrose has increased to an average of 13% in 2006.

The production per unit area has also increased to 42 tons per ha by 2006.

There has been an increase in pricing over years. From Tsh. 10,958 to Tsh.34,647 per tone in 2007.

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***Assistance to the farmers to upgrade***

-Started with seedlings, land clearance, Harvest and transport  
- Currently remained with harvest and transportation.

-Assisted in construction of schools, dispensaries and infrastructure improvement.

- In general the relationship between the lead firm and the farmers is characterised by mistrust.

***Assistance to the farmers to upgrade***

- started with land preparation, agricultural inputs, seedling, harvest and transport  
- Currently training, inputs, management operations

- Assisted the community - infrastructure improvements, mobile health clinics, and HIV aids services.

-The lead firm has managed to maintain good relationship with the farmers association to ensure smooth running of the business.

**The Lead firm Strategy**

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***Phases of the chain***

Production of sugar cane supposed to be done by the Lead firm and farmers (Amount produced between Lead firm and farmers differs on yearly basis)

Cutting, loading and transportation of cane to the mill supposed to be done by both the Lead firm and farmers association.

Cutting, loading, and transportation cane from Mills field supposed to be done by the Lead firm

The lead firm supposed to process, refine and transport sugar. Sister company supposed to market and sale the sugar.

The sugar quota sold to the EU is exported by the sugar board

***Phases of the chain***

Production of sugar cane is supposed to be done by both the Lead firm and farmers

Cutting, loading, and transportation cane from farmers' fields supposed to be done by farmers association.

Cutting, loading, and transportation cane from Mills field supposed to be done by the Lead firm

The lead firm supposed to process and refine the sugar

Transportation of mill cane and sugar is supposed to be done by contracted organisation from South Africa

Marketing and sale of sugar internally is done by contracted Lead firm

The sugar quota sold to the EU is supposed to be exported by the sugar board

***The Contract***

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The contract is supposed to be between the lead firm and the farmer association called Mtibwa Out growers Association (MOA)

***Length of contract***

Two years contract

***Roles of the Lead firm***

To crush cane from farmers according to the agreed estimates. The Lead firm is obliged to support MOA members through providing services in land preparation, supply of seed cane whenever possible. Provide guidance and technical support which will help the farmers to improve the yields in the cane fields.

To cooperate with MOA in development, repair and maintenance of infrastructure, boundary fire breaks, availability of agricultural inputs and herbicides timely and at reasonable cost to farmers. To consider any other proposal that MOA would like to submit as long as it is reasonable.

Makes sure that the mill is operating efficiently at agreed standards

***Roles of farmers associations***

Farmers associations are obliged to make sure that

registered cane grower is responsible for developing his/her cane fields in accordance with the prescribed standards as per sugar Regulations. Should sell the cane only to the Miller (Mtibwa Estates Limited).

The farmers association is obliged to submit the list of its registered

The contract is supposed to be between the lead firm and the farmer associations called Kilombero Cane Growers Association (KCGA) and Ruembe cane growers Association (RCGA)

***Length of contract***

Three years contract

***Roles of the Lead firm***

To crush cane from farmers according to the agreed estimates. Prepare and present to the association the estimated and actual payments to each grower. Make available to the associations the final audited accounts, and the association will be allowed to assess those accounts at their own cost.

The contract clearly stipulates that the lead firm is not responsible to make available to the association or association growers any management, operational, extension or administrative services for providing any assistance to the farmers other than may be mutually agreed in writing from time to time.

The company together with the association will make sure that the varieties of the cane respectively grown in the supply area are to be those authorised by the Sugar Research Institute or in terms of the relevant sugar Industry Regulations

Makes sure that the mill is operating efficiently at agreed standards

***Roles of farmers associations***

Farmers associations are obliged to make sure that

registered cane grower is responsible for developing his/her cane fields in accordance with the prescribed standards as per sugar Regulations. Should sell the cane only to the Miller (Kilombero Sugar Company).

The farmers association is obliged to submit the list of its registered members and estimates of the cane to be harvested. Draw jointly (with the lead firm) harvesting and



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***How are the terms of contracts are supposed to be made***

The contract is supposed to be drawn before the harvest seasons. The lead firm draft the terms and negotiate with the farmers association before agreement and signing is done.

The contract is supposed to be drawn before the harvest seasons. The lead firm draft the terms and negotiate with the farmers association before agreement and signing is done.

Before the current contract the contracts ere done yearly.

Before the current contract the contracts ere done yearly.

***How do the lead firm suppose monitor the implementation of the agreed functions for the farmers***

The contract provides for the establishment of a Mill Operations Committee which consists of five (5) members, two from MOA and two from Lead firm chaired by a technical officer from the Lead firm the other party provides a Secretary. The committee discusses the estimates of the cane to be harvested and also ensures smooth administration of the harvesting programme and related issues.

The operational board that consists of 4 members, 2 from each party is placed to monitor the production, harvest and cane supply. Its roles are to establish local rules concerning the estimates for production, matters concerning daily regulations of cane supplies and delivery to the Mills. Determine penalties payable by any party that related to the break of the above laws.

To settle disputes which may arise between parties or within the associations, which are not otherwise, required to be referred to arbitration pursuant.

***How do the lead firm provide sanctions for the farmers***

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The burnt cane which fails to reach the mill within 48 hours is considered to be not suitable for producing quality juice hence is rejected.

Payment is done according to 10% rendement. Therefore the less the rendement the less the payment.

The miller may reject cane delivered whose purity is 80% lower

Cane delivery to the mill after a period in excess of 45 hours from the time of burning may attract penalty per hour. The penalty shall be agreed between the grower and the miller and enshrined (basing) on commercial agreement.

The Net divisible Proceeds will be reduced by 0.5 % should the burn to crush delay for cane deliveries exceed 45 hours.

Payment also determined at 10% rendement. Therefore the less the rendement the less the payment.

The miller may reject cane delivered whose purity is 80% lower.

The miller may reject the cane delivered when they exceed the daily tonnage agreed between two parties

The bonus will be available to the farmers when the sugar quality is higher and is able to fetch good prices, which means they will get higher prices.

***What is on the Ground***

***Lead Firm Strategy***

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***Phases of the chain***

Production – Lead firm, farmers

Cutting, loading of the cane to the mill is done by the Lead firm

Transportation of the cane to the mill is done by both the Lead firm and farmers association.

Process, refine, transport and market sugar - The lead firm

The sugar quota sold to the EU is exported by the sugar board

***Phases of the chain***

Production -Lead firm and farmers.

Cutting, loading, and transportation cane from farmers' fields - farmers association.

Process and refine the sugar- Lead firm

Transportation of sugar – contracted company from South Africa

Marketing - contracted firm

The sugar quota sold to the EU is exported by the sugar board

***The Contract***

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***Length of contract***

Two years contract since 2007.

***Length of contract***

Three years contract since 2006

***Roles of the Lead firm***

The Lead firm has failed to fulfil its obligation. It does not respect the contract.

- No assistance to the farmers
- payment is not on time
- there is element of cheating on grading
- Not maintaining the machinery

***Roles of the Lead firm***

The lead firm is honouring the contract.  
Has done more in terms of providing assistance to the farmers.

***Roles of farmers associations***

- Providing services
- Negotiating with the lead firm
- Not able to fulfil the roles

***Roles of farmers associations***

- Providing services
- Negotiating with the lead firm
- Not able to control supply of sugar cane

***Delivery Schedule***

- Drawn together by the lead firm and the farmers associations.
- Not followed

***Delivery Schedule***

- Delivery schedules are drawn together by the lead firm and the farmers associations.
- Followed with assistance from lead firm

***Quality***

Some farmers have been reported to supply low quality cane 5,6,7% rendement. Average sugar content 9.7%

***Quality***

Farmers has been reported to supply quality sugar cane with average sugar content has reached 13% sugar content.

***Price and Payment***

- Price is determined by using partial system of Division of Proceeds (DOP) and relative cane payment system.
- Payment delayed for 4 to 6 months

***Price and Payment***

- The price is paid according to the agreed amount
- Payment is done according to the agreed terms

***How are the terms of contracts are made***

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***How are the terms of contracts are made***

- Both lead firm and farmers association
- Less openness
- Terms are in English – few farmers know about them all

***Monitor the implementation of the agreed functions***

- Operations committee deals with harvest schedules

***Sanctions for the farmers***

- Rejection of cane that fails to reach the mill 48 hrs after burn
- Bonus when the quality is high

***How are the terms of contracts are made***

- Both lead firm and farmers association
- There is transparency in operations.

-Terms are in English – few farmers know about them all

***Monitor the implementation of the agreed functions***

- Operation board deal with following up production, c cane supplies and delivery to the Mills.

***Sanctions for the farmers***

- Penalty is given when cane fails to reach the mill 72 hours after burn ( in case of fire accidents)
- Net divisible Proceeds for farmers are reduced by 0.5 % should the burn to crush delay for cane deliveries exceed 45 hours
- More payment if the quality is high

**Relationship with Other Actors**

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**Relationship with Other Actors****Government**

- Lobby for improvement of infrastructure, tax reduction and production of other sugar related products

- Government is building a road

- Local government has sent six extension offices

- Delaying payments

***Donors and NGOs***

- No relationship with any of the above

***Financial Institutions***

- Assuring Banks that will disburse payments from farmers

**Relationship with Other Actors****Government**

- Request for funding, The Lead firm have been able to secure

- through farmers associations lobby the government to deal with sugar smuggled in the country

- collaborate with Sugar research institute to assist farmers

***Donors and NGOs***

- Attracted donors and NGOs to assist farmers and the Lead firm

***Financial Institutions***

- Assuring Banks that will disburse payments from farmers

***Financial Institutions***

- Assuring Banks that will disburse payments from farmers