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Contract farming under competition: Exploring the drivers of side selling among sugarcane farmers in Mumias

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Contract farming under competition: exploring the drivers of side selling among sugarcane farmers in Mumias

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### **Abstract**

This paper seeks to explain the drivers of side selling among sugarcane farmers in Kenya. Focus groups and semi-structured interviews with farmers and employees at Mumias Sugar Company show that utility maximisation cannot explain the decision to side-sell of all farmers. For a group of farmers, side-selling is a response to a broken social contract. Beckert's (2010) economic sociology framework reveals that competition eroded firm-farmer relationships and changed network structures that would not allow Mumias Sugar Company to fulfill obligations of reciprocity and fairness. Hence, competition affects the viability of contract-farming schemes not only through allocative efficiency but also through social networks.

## **Abbreviations**

**ADM** Agriculture Development Manager

**ASA** Agriculture Service Accountant

**CF** Contract Farming

**CFS** Contract farming scheme

MSC Mumias Sugar Company

**SO** Security Officer

**IMF** International Monetary Fund

**ISCT** Integrated Social Contract Theory

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### 1. Introduction

While contract-farming schemes (CFS) have been celebrated for linking millions of farmers to national and global markets, they are not free from ills. In CFSs, a firm typically commits to buying crops from contracted farmers and provides inputs and extension services on credit (Porter & Phillips-Howard, 1997). Many studies identified side-selling as a serious threat to the long-term viability of contractfarming (CF) in sub-Sahara Africa (Grosh, 1994; Jaffee 1994; Hoeffler, 2006). Whenever farmers decide to sell to a different buyer, they burden contracted firms with raw material shortages and unrecovered loans (Bellemare, 2010). For this reason, understanding the drivers of side-selling is an important prerequisite when developing governance relationships which enable sustainable small farmer inclusion in trade. The latter is particularly timely since lead firms in agricultural global value chains prefer CF over spot markets to ensure high quality standards, but still encounter difficulties when trying to achieve stable supplies (Gibbon & Ponte, 2005). Given the timeliness of the issue, one would expect that side-selling has been a focal point in the CF literature. On the contrary, authors mention a myriad of drivers but rigorous, in depth studies on side-selling are few (Masuka, 2012; Mujawamariya et al., 2013). Arguably this is the case because existing, economic explanations (Hoeffler, 2006; Masuka, 2012) are considered sufficiently 'logic'. This study argues that motivations for side-selling are not necessarily based on perfect or bounded rationality, but can also be grounded in interlinkages between economy and society (Smelser & Swedberg, 1994). Therefore, this study seeks to answer: How can an economic sociology perspective help to explain the drivers of side-selling by sugarcane farmers in Mumias, Kenya?

Beckert's (2010) Economic Sociology Framework<sup>1</sup> will be used to examine a) direct motivations for side-selling and b) changes over time which explain how the context that fuels side-selling emerged. Apart from studying side-selling from a different angle, this paper enriches the existing CF literature in two more ways. Firstly, it combines a point in time analysis with a retrospective analysis. In doing so it acknowledges that CFSs and their environment are not static (Jaffee, 1994). It particularly pays attention to the ability of CFSs to adjust to increasing levels of competition. Secondly, it furthers the debate on the use of alternative sales outlets as ways to enhance the bargaining power of farmers in unequal CFSs. In contrast to proponents of these solutions (Glover, 1987; Key & Runsten, 1999), this paper shows that additional sales outlets disadvantage farmers in CFSs on the long run.

An in depth case study of Mumias Sugar Company (MSC) in Kenya will demonstrate that motivations for side-selling are not necessarily based on utility maximisation. While some farmers are sensitive to returns and prices, other farmers allow themselves to side-sell because of a broken social contract. This paper argues that this broken social contract emerged because of a change in firm-farmer relationships and social networks, which were the result of changes in institutions in the West-Kenyan

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<sup>&</sup>lt;sup>1</sup> Beckert (2010) does not name his framework, but for convenience I use 'Economic Sociology Framework' to refer to his framework in this paper.

sugar industry. The paper is structured as follows: The theoretical overview presents existing explanations for side-selling and discusses the three mechanisms that constitute Beckert's (2010) Economic Sociology Framework: cognition, networks and institutions. Chapter three justifies the methodological approach and chapter four presents relevant background information about MSC in order to interpret the thematic analysis in chapter 5. The paper finishes with conclusions and recommendations in chapter 6.

## 2. Theoretical overview

#### 2.1 Contract farming under competition

CF is renowned for its ability to combat market failures in small scale agriculture (Sivamkrishna & Jyotishi, 2008). CF ensures a stable source of supply to firms and shields farmers from uncertainties (Sivamkrishna & Jyotishi, 2008; Abebe et al., 2013). For farmers, CF increases incomes (Miyata, Minot & Hu, 2009), but whether it benefits their wellbeing and reduces poverty remain topics for debate (Glover & Kusterer, 1990; Key & Runsten, 1999; Warning & Key, 2002). The main critique on CF comes from a Marxist political economy angle and argues that monopsony – present in most CF schemes – results in an unequal power relationship that allows firms to exploit farmers (Porter & Phillips-Howard, 1997; Eaton & Shepherd, 2001; Clapp, 1994). Exploitation occurs when firms have the power to set contract terms and prices that are unfavorable to farmers (Sivamkrishna & Jyotishi, 2008) and when contracts subordinate non-wage household labor (Watts, 1994).

This critique shifts the focus to potential solutions to improve farmers bargaining power. Glover (1987) and Key and Runsten (1999) argue that alternative sources of income and alterative sales outlets preferably in combination with collective action (e.g. in cooperatives) can improve farmers' bargaining power. The argument in favor of alternatives is in line with market thinking based on the idea that exit is an accountability mechanism that prevents consumers from inefficiency and exploitation (Paul, 1992). Yet, competition, which these proposals consider beneficial to the farmer, also opens up opportunities for intensified side-selling (Grosh, 1994). The latter may threaten the viability of CFSs, so the long-term benefit for farmers needs to be questioned. Over the course of two decades, the sugarcane producer market in Western Kenya experienced a transition from monopsony to a (more) competitive market. In contrast to Glover (1987) and Key & Runsten (1999), this study expects that alternative sales outlets disadvantage farmers on the long-run if side-selling cannot be curbed.

#### 2.2 Motivations for side-selling

Table 1

Drivers of side-selling (own creation)

Side-selling	Origin	Driver	Farmer	Firm	Contract relationship
Response to higher (expected) prices or returns	Neoclassical economics	Utility maximisation	Perfect rationality: maximizing utility	Perfect rationality: maximizing profit	Legal and voluntary agreement
Opportunity for easy, timely and certain payment	Transaction costs	Transaction costs	Bounded rationality	-	Legal and voluntary agreement
Principal-agent problem: meet immediate financial need	Agency Theory	Information asymmetry	Bounded rationality Self-interested	No access to information about farmers' financial needs	Legal and voluntary agreement
Resistance to oppression	Political economy (Marxist)	Hegemony	Subordinate	Powerful, exploits farmer	Unequal exploitative relationship
Compliance with social expectations	Sociology	Social norms	Behavior guided by norms	No focus on firm	-
Response to broken social contract (section 2.3)	Business ethics	Firm violates norms in microsocial contract	Response to firm. Has less obligations.	Morally blind	Social relationship

Table 1 summarises different motivations for side-selling identified in the literature and shows how each conceptualises the farmer, firm, contract and the buyer-supplier relationship. Multiple studies describe side-selling as free-riding (Glover, 1990), a type of opportunistic behavior on the part of the farmer. Farmers divert their harvest to avoid paying for services received on credit leaving firms with debts (Fafchamps, 2004; Bellemare, 2010). Competitors who did not provide extension services and input, were able to offer better prices (Masuka, 2012). This implies that both farmers and competing firms benefit from services at the expense of the contract issuing firm. Poulton et al. (2004) show that the introduction of credit provision in cotton-markets increased side-selling. In the cotton industry of Zimbabwe, farmers sold their cotton to buyers outside the contract to free-ride (Masuka, 2012). Glover (1990) notes that free-riding is related to price incentives and becomes a problem when spot markets offer higher prices than the contract.

In line with the latter, side-selling has been conceptualised as an individual decision to pursue an opportunity to receive *higher prices or returns*. This neoclassical economics view assumes that human beings have a one-dimensional rationality to maximise utility and that they are fully informed, independent and self-interested (Zukin & DiMaggio, 1990). The majority of CF studies indicate the importance of price and returns as drivers of side-selling. In potato value chains in Kenya, Hoeffler (2006) attributes contract breach to farmers' preference for higher prices on spot markets. In Chinese CFSs, Wang et al. (2011) also find that market price is the most important predictor of side-selling. Poulton et al. (2004) posit that farmers do not focus on price but on returns after deducting inputs and extension services. Glover (1990) summarises the aspects of payments that influence farmers' decisions

as follows: 'the level, the basis on which prices/payments are calculated and the promptness of payments are made' (p.309). It is pertinent to note, however, that the assumption of full information does not apply in all CF schemes. Most CF schemes set the price at the point of harvest and fail to communicate deductions clearly (Glover, 1990). Misunderstanding of the formula to calculate returns is common due to poor explanation by field staff (ibid.). Thus, in many cases farmers remain unaware of their expected returns. Under uncertain circumstances it is difficult for farmers to make perfectly rational choices based on full information.

Contemporary economic models have come to acknowledge bounded rationality (Arnsperger & Varoufakis, 2006), which refers to the idea that human beings make suboptimal decisions in the absence of perfect information. According to Williamson (1985), legal contracts guard against opportunism and compensate for uncertainties that are a result of bounded rationality. Where contracts are unable to reduce uncertainties and information asymmetry, not only price but *transaction costs* have also been identified as drivers of side-selling (Abebe et al., 2013). In this case, farmers choose for timely, easy and certain sales. Mujawamariya et al. (2013) find that transaction costs are a key driver of the decision to side-sell coffee to traders in Rwanda. Because traders pay immediately, farmers incur lower transaction costs. Moreover, unlike cooperatives, traders do not have strict quality requirements so are easier and more secure sales outlet.

When firms lack sufficient information, side-selling can be understood as a *principal-agent problem*. The principal cannot observe behavior of the agent or cannot acquire the same information as the agent (Do, 2003). Firms working with a large number of farmers may be unable to observe whether farmers honor the agreement. Since MSC works with 83,000 contracted farmers, this seems likely in their case. Barrett et al. (2012) state that side-selling can be a response to a mismatch between the timing of payments or inputs and farmers' needs. Farmers have more information about their financial needs than the principle, so based on this logic the firm cannot respond to farmers' needs before they engage in side-selling due to information asymmetry.

The drivers of side-selling discussed so far perceive the contract relationship as a voluntary agreement between two autonomous partners. This neutralises and obscures the widely criticized unequal power relationships between farmers and the firm. Clapp (1994) observes a link between unequal power and side-selling. He views side-selling as silent resistance in response to the 'hegemonic' nature of the contract relationship (ibid.). Clapp (1994) states that "The hegemony of the contract – the legitimacy of the company's domination- is maintained through the informal understanding that growers are permitted to use the inputs and products in a slightly unorthodox manner" (p. 91). Farmers tolerate their hegemonic relationship with the firm because they can sell some proceeds, and firms tolerate a small amount of crop retention for consumption or sales on the local market because it ensures the stability of the CF scheme. This may seem to contradict with Grosh (1994) who argues that side-selling leads to instability. It is pertinent to note that Clapp (1994) discusses side-selling in a context where firms are still powerful. When power diffuses because of increased competition the magnitude

of side-selling is likely to increase and the stability of small scale side-selling Clapp (1994) refers to is more likely to turn into instability.

So far, this overview is marked by the absence of social dimensions. Sociological explanations for economic behavior have been considered too deterministic by arguing that social norms determine behavior (Granovetter, 1985; Gelaw et al., 2016). On the other hand, explanations based on neoclassical economic thought, transaction costs and agency theory focus on the individual farmer. While more contemporary models do contain a unidimensional link to a social factor (Arnsperger & Varoufakis, 2006), these theories are not able to account for actors' embeddedness in social networks. The resistance paradigm and critiques on unequal bargaining power do acknowledge embeddedness of contractrelations in a socio-economic context (Porter & Phillips-Howard, 1997; Clapp, 1994), but their focus on power excludes other relevant social dimensions. Asymmetry of information assumes that the simple presence or absence of information exchange is sufficient to curb side-selling, but ignores how communication and information exchange influence factors such as trust and perceived reciprocity in a relationship (Uzzi, 1997). Moreover, it ignores the role of social networks in shaping who acquires and who is isolated from information. In sum, interpreting side-selling either as a rejection of economic rationality or of social norms ignores the vast literature showing how sociological factors influence economic behavior (Granovetter, 1985; Uzzi, 1997; Smelser & Swedberg, 1994; Dobbin, 2004). This paper aligns with new economic sociologists such as Granovetter (1985) in rejecting the overly social conceptions of human behavior as well as the under-socialised assumption of for example neoclassical economics. Inherent in this approach is a rejection of the assumption that motivations and behavior are always rational (Beckert, 1996).

#### 2.3 Theoretical Framework: Economic Sociology

Economic sociologists identify three key topics of research: cognition, networks and institution (Beckert, 2010; Dobbin, 2004; Fligstein & Dauter, 2007). While these topics have long been analysed separately, I agree with Dobbin (2004) and Beckert (2010) that only their joint operation and interactions can explain the dynamism of changes in economic behavior. This study seeks to explain side-selling behavior by studying how networks, cognition and institutions interact. Dobbin (2004) describes a pattern whereby cognition evokes new ideas, power turns ideas into institutions, institutions set rules that guide behavior and networks spread information to renew or maintain cognition. This description of change processes in capitalist systems, however, contains specific unidirectional relationships between the three elements. Beckert (2010) proposes an Economic Sociology framework that allows for more dynamism because the three elements can mutually influence each other (Figure 1). Stability can be achieved when networks, institutions and cognition reinforce each other (Beckert, 2010). A change in one element may create instability by opening new profit opportunities and closing current ones (ibid.). The key question is to identify how these relationships produce economic behavior in different practical contexts.

Critics may comment that this framework does not explicitly factor in politics. Especially because of the important role of government in shaping the degree of competition in industries and specifically in the sugarcane industry of Western Kenya. Firstly, politics and policy making are social processes also structured by institutions, cognitions and networks (Zukin & DiMaggio, 1990). Instead of including it in this framework, its effect on economic behavior can be analysed by means of this framework. A more appropriate remark is that the model does not explicitly recognise power. Given the transition from monopsony to competition in the Western Kenyan sugar industry power shifts are likely to play a key role in this case. Despite it not being included in the model, Beckert (2010) does recognize the influence of power: "Changes in the social structuration of markets can emerge from changes in one of the structures, which lead to an alteration of power relations between agents and subsequently to action that results in changes of the other structures" (p. 608). The analyses will take into account how changing institutions, cognition and networks influence power of different actors and how power enables actors to influence or maintain institutions, cognitions and networks.

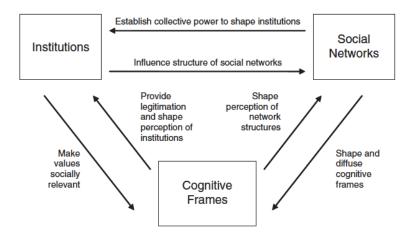


Figure 1. Economic Sociology Framework (Beckert, 2010)

#### 2.3.1 Cognition

Cognition is the 'psychological process of making sense of the world and its social conventions.' (Dobbin, 2004; p.9) The focus of economic sociology has been to understand different motivations or different varieties of rational self-interested thought across different contexts (ibid.). Section 2.2 summarised the motivations for side-selling identified in the literature, of which the majority are grounded in rational self-interest. I propose social contract theory as an alternative social driver of side-selling. Social contract theory in the tradition of Hobbes, Locke and Rousseau, refers to an invisible convention that specifies the social responsibilities of states towards citizens (Morris, 1999). Donaldson and Dunfee (1994) redeveloped this concept into Integrated Social Contract Theory (ISCT) in order to apply it to businesses-society relationships. ISCT helps to identify how economic participants define business ethics. ISCT consists of a macro contract with macro values such as 'fairness' and of a micro

contract. The second provides moral free space, which leaves room for communities to define norms based on their ideological or cultural beliefs as long as these are aligned with macro values. This space for cultural diversity makes ISCT appropriate to study firms that operate in developing countries. Here, a social micro contract will be defined as the beliefs and norms pertaining to loyalty, good-faith and fair dealings shared between parties involved in CF relationships.

According to Donaldson and Dunfee (1994), companies that do not recognise the norms in the social contracts of the communities are 'morally blind'. The latter involves a breach of loyalty (ibid.). I propose to conceptualise side-selling as a response to firms' violations of obligations that are part of farmers' micro social contract. Thus, whether behavior translates into side-selling ultimately depends on the norms in farmers' micro contract. This perspective avoids relying on assumptions about behavior and requires scrutiny of actual motivations and thought processes of farmers. Furthermore, it moves beyond the individual farmer, explicitly pays attention to the relationship between farmers and firms and considers social networks and institutions in the formation of obligations. The need for flexibility of norms is evident. For instance, Clapp (1994) proposes that hegemony is a constant factor in CF schemes that motivates side-selling. Yet, Singh (2002) studied CF schemes in India in a monopsony context and concluded that 60% was happy. This result indicates that given the wide variety in structure, embeddedness and social context of CFSs, explanations for side-selling are likely to differ accordingly. Moreover, side-selling can be a response to different types of firm default such as late harvesting, late fertilizer delivery or late payments (ACDI/VOCA<sup>2</sup>).

#### 2.3.2 Institutions

In his original work, North (1991) defines institutions as "humanly devised constraints that structure political, economic and social interactions" (p. 62). In addition to formal institutions, informal norms have been found to influence marketing decisions. Gelaw et al. (2016) find that informal norms are more important determinants of marketing decisions in the Ethiopian coffee sector than price because transactions are embedded in personal relationships. In the absence of contracts, rural communities prevent opportunism by exchanging with trusted individuals, usually people they know (Fafchamps, 2004). Furthermore, Bijman (2008) points to respect for traditional and informal agreements. He sees the absence of a tradition of written contracts as an explanation for contract breaches. Institutional Economics is increasingly recognising the informal nature of institutions (Nee, 2005). In more recent work for example, North (2005) proposes a revised definition that includes informal norms. Yet he attributes behavioral choices to 'perceptions about the pay-offs' and attributes the origins of the norms to genetic evolution and ignores the social embeddedness of these norms.

<sup>&</sup>lt;sup>2</sup> ACDI/VOCA is the name of an economic development organization.

Modern sociologists such as Durkheim and Weber perceive institutions as shared norms, conventions and routines in groups of people that shape human behavior (Nash & Calonico, 1993). Dobbin (2004) stresses that rationality and self-interest are also applied as conventions. In order to acknowledge social embeddedness of both formal and informal conventions, this paper uses the definition by New Sociological Institutional Theory (NSIT), which defines institutions as "a dominant system of interrelated informal and formal elements – shared customs, beliefs, conventions, norms and rules – which actors orient their actions to when they pursue their interests" (Nee, 2005, p. 55). According to Beckert (2010), institutional change is a result of inconsistencies between formal and informal institutions or a result of a change in the power of actors to sustain or adjust institutions. Power divisions and power struggles allow actors to or withhold others from shaping economic and social norms (Dobbin, 2004) and economic outcomes (Zukin & DiMaggio, 1990).

#### 2.3.3 Networks

Economic behavior is embedded in interpersonal relations and social networks (Zukin & DiMaggio, 1990). In CFSs, firms are linked to farmers (Watts, 1994), who are embedded in social networks of friends, family, farmers and traders. In general, networks are important transmitters of information, ideas and conventions (Eckerd & Hill, 2012) and they facilitate collective action and market exchange (Zukin & DiMaggio, 1990). The entire network of contacts, beyond the dyadic buyer-supplier relationship, shapes what information the supplier receives about the buyer (Eckerd & Hill, 2012; McCarter & Northcraft, 2007). The type and extent of information exchanged in relationships, however, depends on the structure and strength of ties in a particular network. To this end, both the structure of social networks and the nature of dyadic buyer-supplier will help to explain economic outcomes.

The effect of the nature of buyer-supplier relationship on economic performance constitutes an ongoing debate. On the one hand, authors argue that contractual and relational governance substitutes each other (Corts & Singh, 2004; Kalnins & Mayer, 2004; Granovetter, 1985) whereas others conclude that they are complementary (Wallenburg & Schaffler, 2014; Li et al., 2010; Ryall & Sampson, 2009). CFSs possess the 'contract' aspect of formal governance. Formal governance also includes control mechanisms to monitor and evaluate the processes and outcomes of suppliers (Wallenburg & Schaffler, 2014). Cao and Lumineau (2015) find that whether formal control can reduce risk of opportunism depends on the strength of institutions. The weakness of legal enforcement in developing countries, however, reduces the effect of formal controls (Fafchamps, 2004). More importantly, firms with CFSs avoid legal enforcement and strict control mechanisms because it spoils their relationship with and reputation among farmers (Grosh, 1994). Interviews with the Agriculture Development Manager (ADM) and Security Officer (SO) at MSC confirm this (Appendix 4). Thus in this context, formal control is not a preferred method to address uncertainties in the contract. In line with research by Cao and Lumineau (2015), relational characteristics are expected to complement contracts in reducing

opportunism. Relational governance can be defined as the extent to which buyer-supplier relationships are governed by social relations and shared norms (Poppo et al., 2008). Trust, reciprocity and relational norms about expected behavior are common characteristics of relational governance (Cao & Lumineau, 2015). Trust in the buyer-supplier relationship is determined by norms of flexibility, information exchange and solidarity (Lu et al., 2015). Information sharing and communication improves the mutual understanding about each other's processes (Schoenherr et al., 2015) and repeated interaction strengthens the relationship and the emergence of norms and mutual obligations (Cao & Lumineau, 2015; Saxton, 1997).

Communication and trust also occur in CF literature about firm-farmer relationships. Communication is vital to monitor progress, assist farmers to perform their tasks and support better application of agricultural practices (Leguizamon, Selva & Santos, 2016). Poor communication created the perception among farmers in KwaZulu Natal, South Africa that the company was cheating and created misplaced distrust (Porter & Phillips-Howard, 1997). While the ability of field staff to explain statements is particularly important to avoid distrust (ibid.), misunderstandings about statements and calculations are common (Glover, 1990). Staff members from the same locality are generally better at dealing with farmers because of their initial familiarity and relationship with the community (ibid.). Not just the skills of field staff but also their numbers are likely to contribute to the strength of relationships. Glover (1990) notes that successful schemes have a remarkably higher field staff to farmer ratio. Successful schemes in Swaziland had a ratio of 1:65 compared to the average of 1:400 (Boeren & Sithole, 1989). In network analysis, the presence of these relational characteristics determines the strength of buyer-supplier relationships. Communication is a key factor in determining degree of trust and perceived reciprocity that shape the strength of firm-farmer relations.

Despite their merit in curbing opportunism, a network of only strong ties is not necessarily desirable. Uzzi (1997) describes a paradox of embeddedness. If the competitiveness of organisations only relies on strong, embedded ties, organisations can collapse if changing institutions rationalise markets. This is particularly so for firms that heavily relied on and invested in strong ties and are unable to anticipate promptly because networks of information and communication broke down (ibid.). The latter points to interactions between institutions and networks whereby competition erodes embedded social ties including their benefits such as information exchange, low transaction costs and security of supply. To overcome over-embeddedness, Uzzi (1997) proposes a combination of weak and strong ties as an ideal networks structure for firms. Figure 2 shows an example of this 'Integrated Network'.

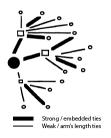


Figure 2. Integrated Network (Uzzi, 1997)

The first network layer consists of strong ties whereas the second layer of networks combines weak and strong ties. Weak ties are valuable because they channel information from one close group to another close group that would otherwise not have been inter-linked (Granovetter, 1985). Friedkin (1982) adds that the strength of weak ties lies in their high numbers and not in their high probability of achieving information flows. Also the quality of information that is transmitted matters (Levin & Cross, 2004): trusted weak ties transmit more useful, non-redundant information than distrusted weak ties (ibid.). In the sugarcane sector of Western Kenya, where MSC operates, competition rose over time as government formulated policy that rationalised insitutions and introduced free-markets. Based on the network literature, the ability of MSC to anticipate and respond to competition depends on the strength and the combination of strong and weak ties in farmers' networks.

## 3. Methodology

CF literature is marked by the absence of in depth studies about motivations for side-selling. Qualitative case studies are appropriate to fill this gap because they provide "a detailed in depth understanding of what is to be studied" (Hodkinson & Hodkinson, 2001, p.2) and their qualitative nature allows to "explore personal and social experiences, meanings, practices and the role of context in shaping these" (Skoval & Cornish, 2015, p.4). MSC was selected as a case study for two reasons. Firstly, the prevalence of side-selling at MSC increased the likelihood of sampling relevant farmers (Mumias Sugar Company Ltd, 2016). Secondly, MSC has long been documented as a success story (Jaffee, 1994), but is currently performing badly. Its well-documented trajectory from monopsony to competition since 1973 make it an ideal case for a retrospective analysis.

Focus groups and semi-structured interviews with farmers and employees were used to gather rich information needed for answering the research question. Face-to-face communication builds trust and stimulates participants to disclose information (Johnson, 2002). This is important when investigating a sensitive topic such as side-selling, which requires farmers to admit contract breach. For this reason, confidentiality received high priority and farmers' identity remained strictly anonymous. Data that could reveal farmers' identity, such as names, distinctive characteristics or exceptional experiences, have been omitted from the report. The discussions were even held in a local hotel in order to avoid that the researcher – who is white and European - would reveal farmers' identity by visiting.

#### 3.1 Design

This research combined what Flick (2009) calls a 'snapshot' to identify motivations for side-selling and a retrospective approach. The latter is useful to reconstruct change processes by means of participants' views (Flick, 2009). Since social desirability is likely when studying sensitive topics (Grimm, 2010), the private nature of semi-structured interviews seemed more appropriate than focus group to avoid

limited self-disclosure due to social pressure. However, during a pilot session farmers spoke more openly in a group setting. This countered expectations, but can possibly be explained by their familiarity with speaking in gatherings as opposed to in individual interviews settings with an unknown, European interviewer. An environment that encouraged information-disclosure was priority, so I decided to conduct seven focus groups with 3 to 6 participants instead.

A literature study informed the initial interview guide. By applying Finlay's (2002) process of strategic reflexivity and consciously looking out for new themes, the ISCT theme was added to the discussion guide (appendix 2). The interview guide for company representatives can be found in appendix 2. Before conversations, participants received an information sheet and consent form (appendix 1). Where needed, a translator explained the content in the local language. The discussions contained ice-breaker questions, questions on side-selling answered individually for the ease of analysis and a discussion. Since indirect questioning can reduce social desirability (Fisher, 1992), the first questions about side-selling asked about *other* farmers. Data that are essentially self-reports are prone to inaccuracies (Appleton, 2006). Including both farmers' and employees' perspectives allowed to verify statements made by both parties. Furthermore, policy documents, parliamentary proceedings, news articles and academic papers were used to verify interview data.

### 3.2 Sampling

Information rich farmers were selected by means of two inclusion criteria. Firstly, farmers had to be contracted with MSC from at least 1990 until 2005. This inclusion condition increased the likelihood that participants engaged in side-selling and that they were contracted while key changed occurred. Side-selling had started by 2000 (Chambers, 2015) and liberalisation and change of top-management occurred respectively in 1992 and 2003. A local authority recruited 26 farmers and I recruit 4 farmers using snowball sampling. The presence of a translator allowed farmers who did not speak English to participate, which avoided a selection bias of only educated farmers. The second criteria – experience with side-selling - was applied after the interviews. Eleven farmers, one female and ten males admitted their or other farmers' involvement in side-selling. The initial sample contained twelve women, but farmers involved in side-selling were predominantly men. Only data from these eleven farmers were analysed to identify motivations for side-selling. Furthermore, all selected MSC employees (appendix 4) interact with farmers on a weekly basis and worked in different departments: finance, agronomy, agriculture, CSR and security. The themes for the retrospective analysis were identified in data of sideselling farmers and MSC employees, but enriched by insights of 9 other farmers who shared similar experiences. These farmers were considered comparable because their motivations to terminate contracting with MSC were similar to motivations for side-selling.

#### 3.3 Analysis

Thematic analysis has been applied to identify varieties and patterns of meaning in the interview data (Braun & Clarke, 2006). Braun & Clarke's (2006) six steps for thematic analysis and Gillham's (2005)

coding guide informed the analytical procedure. I read focus group transcripts multiple times to familiarise myself with the data, then coded intensively, noted tensions and made comparisons between transcripts. By means of visual representations, I identified different motivations for side-selling, their interlinkages and factors that changed over time. This eventually resulted in final codebooks (Appendix 3). To ensure rigor of my analysis, I counted responses that corresponded with the themes to confirm that meanings were as common as I thought and were not led by my own ideas about the purpose of the study (Miles & Huberman, 1994). It is worth noting that not frequency of responses, but originality of the social contract theme motivated the focus of the retrospective analysis.

#### 3.4 Limitations

The methodology has several limitations. Firstly, findings cannot be generalised to other countries or CFSs since the sample is too small to provide statistically significant results. Second, the small sample did not allow for a rigorous cross-section based on different genders, farm sizes or ethnicities. This would have allowed to better understand how different motivations for side-selling could potentially be linked to different types of farmers. To compensate, answers from three authorities who frequently speak to farmers, served to indicate if outcomes were common among the wider farmer population in Mumias. Secondly, the presence of a local authority during three focus groups may have influenced self-disclosure of participants. Only in one of these focus groups participants admitted side-selling. Thirdly, interviewing is never neutral and unbiased (Finlay, 2014). I actively reflected on my subjective role to avoid guiding answers of interviewees or guiding the analysis in line with the research focus. Lastly, the sampling has been done with instructions of the researcher, but by a local authority. The farmers sampled by the local authority were all poor and relied predominantly on small scale farming for their income. This does, however, not reflect the entire population of farmers. Two farmers who were sampled separately represented farmers in local politics and one also worked as a banker. The answers in this study may therefore not be representative of the entire farmer population in Mumias.

## 4. Mumias Sugar Company: Background

Kenya's sugar sector is topic of intense debate in the country. Maxon (1992) writes that "small farm sugar cane can be considered as one of independent Kenya's remarkable successes" (p.289). Critics conclude that the sugar industry does not meet national demand, would not be viable without safeguards from global and regional competition and that producers operate below capacity. MSC was established in Mumias, a town in Western region of Kenya, in 1973 as an import substitution project after independence (Maxon, 2009). Mumias Sugar company is an important employer and drives the local economy of the town. At the national level, MSC is responsible for 35% of the Kenyan sugar supply (Waireri et al., 2013). In 2014, the factory received 84,590 tons from the Nucleus estate, 393,885 from private farmers and the majority, 634,324 tons, from contracted farmers (Mumias Sugar

Company Ltd, 2016). It buys cane from approximately 83,000<sup>3</sup> small farmers producing on plots of on average 0.7 ha. Over time, MSC diversified and currently also generates electricity and produces ethanol.

MSC's trajectory contains several key events summarized in Figure 3. After two decades of protectionism, the government embarked on a domestic liberalisation strategy as part of structural adjustment propagated by the IMF and World Bank (Rono, 2002). The local sugar industry got liberalised in 1992, which increased competition (Mulwa, Emrouznejad & Murithi, 2009). MSC was privatised in 2001 and regional safeguards under COMESA will expire in 2017 (Wangalwa, 2015). Over time, the Kenya Sugar Board licensed eleven sugar millers and six jaggeries<sup>4</sup> (Bitenieks, 2013). Another turning point was the change of management from UK based Booker Tate in 2003 to CEO Peter Kebati and in 2012 to Evans Kidero after Mr. Kebati was suspended for losing 400 million KES (Anyanzwa, 2014). Recently, in 2015 Errol Johnston took over as CEO. MSC is currently coping with capital and raw material shortages that led to a 2-month factory closure in 2015 (Mumias Sugar Company Ltd., 2016).

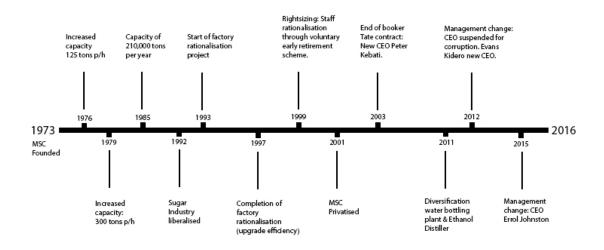


Figure 3. Timeline of key events (Self-made)

Sugar is suitable for CF due to its long production cycle, perishable nature and need for asset specific investments (Hobbs & Young, 1999; Guo & Jolly, 2008). Sugarcane millers generally perform many of the growing practices and leave small responsibilities such as weeding and applying fertilizers to farmers (Porter & Phillips-Howard, 1997). Indeed, contracts between MSC and farmers includes intensive cane development consisting of multiple subsequent processes illustrated by Figure 4. MSC

Mumias Sugar Company website: http://www.mumias-sugar.com/index.php?page=mumias-and-farmers

<sup>&</sup>lt;sup>4</sup> Jaggery is traditional sweetener made from sugarcane often produced as a side-business in sugar zones and prevalent in Mumias.

buys all cane that was grown according to the contract (Holtam & Hazlewood, 2011). As part of the contract, MSC provides inputs and extension services on credit including land preparation, fertilizer provision, harvesting and transport (Casaburi et al., Forthcoming). In return, farmers weed, apply fertilizer, monitor cane growth and provide land and labour. Sugarcane is not completely uprooted after the first harvest but cut and grown again for the second and third harvest. It takes approximately 18 to 24 months until the crop matures, so completing the entire cycle can take 6 years. After harvesting, MSC calculates returns for farmers based on weight and then deducts costs of extension services and inputs all at once to determine farmers' returns. The sugarcane price is set when harvesting and during the process farmers receive invoices about the costs of inputs and services.

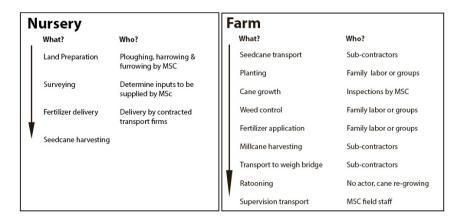


Figure 4. Cane Development process Source: http://www.mumias-sugar.com/index.php?page=Cane-Development

A parliamentary report by the departmental committee on agriculture, live-stock and cooperatives states that "sugarcane poaching started about the year 2000 after the establishment of Butali Sugar Mills in Kakamega County" (Chambers, 2015, p.16). The 2011 annual report mentions an increase in cane poaching (Mumias Sugar Company Ltd, 2012) and in 2012 the magnitude of poached cane has become 128,133 tons (Mumias Sugar Company Ltd, 2013). In 2015, approximately 127,589 tons of cane were sold to neighboring mills (Mumias Sugar Company Ltd, 2016). Despite the lack of consistent numerical data, existing documentation suggests side-selling has become a significant issue over time.

## 5. Analysis

#### 5.1 Side-selling: how it works

Interviews with farmers and employees revealed that side-selling occurred in two forms<sup>5</sup>. Regarding the first form, the ASA explained that farmers sell sugarcane to competing millers via traders<sup>6</sup>. Farmers mentioned that traders were actively involved in convincing them to side-sell and that these traders operate independently, work for competitors or own jaggeries. Traders arrange their own cane cutters and transporters or farmers collude with MSC transporters to leave part of the cane on the farm to sell it off privately. Besides traders and transporters, one farmer said that block leaders, who communicate with MSC on behalf of farmers, also occasionally facilitate side-selling. Farmers collude with them to avoid that they report suspicious behavior. In the second form, sub-contracted transporters collude with traders directly without farmers' consent. This type of poaching happens when cane is transported from the farm to the company. Since the study design is built around decision-making of farmers, the analysis will focus on the first type of side-selling and take into account the active role of traders and transporters.

## 5.2 Direct motivations for side-selling

Prior to engaging in a retrospective economic sociological analysis of side-selling, it is pertinent to understand if a social contract dimension played a role in farmer decision-making. Three themes have been derived from the interview data that represent farmers' direct motivations for side-selling<sup>7 8</sup>: income, resistance and broken social contract. The theme *income* covers all money related motivations coded as higher returns, need for cash and avoid depreciation. Three farmers expressed a 'desire for cash' and are 'easily lured into' opportunities for better money (Farmer 9,10,5). Yet, traders or jaggary owners offer a price that is 30% lower than MSC. This indicates the importance of deductions for land preparation, harvesting and transport in farmers' decision-making process. Not sugarcane price, but the return after deductions drives sales decisions.

Two farmers spoke about a *need for cash* (Farmer 5,8) in conjunction with expected payment delays, a desire for money and poverty. When foreseeing delayed payment, farmers sell elsewhere to pay for planned expenses. The ASA confirmed that payment time exceeded the contractual maximum of 3 weeks. As opposed to a desire for money, some farmers spoke of a need to survive (Farmer 1,2)., The code Distress separates deeper motivations from a more neutral 'lack of cash' that does not capture the social and emotional meaning of poverty:

<sup>&</sup>lt;sup>5</sup> Appendix 3.3 contains quotes from *farmers* to support the statements in this section.

<sup>&</sup>lt;sup>6</sup> Appendix 4 contains quotes from employees to support statements in this section

Appendix 3.1 and 3.3 contains quotes from *farmers* to support the statements in this section.

<sup>&</sup>lt;sup>8</sup> Appendix 4 contains quotes from Mumias Sugar *employees* to support statements in this section.

Not necessarily price. It is discomfort... You cannot have somebody's money for one year or six months. Someone budgeted to have his children in school, to pay dowry and dowry is a big aspect in our society. Once you tell your father in law I will pay dowry in August when you are expecting payment arriving and if you cannot you feel ashamed (Farmer 2).

This fits into definitions of poverty that look beyond a deprivation of income (Sen, 1999). The difference between 'need' and 'desire' is likely to be shaped by characteristics of the farmer. The farmers who expressed a desire and a hunger for money were also employed elsewhere, while the two farmers who spoke of survival and distress relied completely on sugarcane.

Farmers 3, 8 and 9 were uncertain about the balance after deductions. They used the term Depreciation or DR to refer to a negative balance on the final statement. Farmer 3 explained "I sold to a jaggary because I suspected a DR". Farmer 9 sees DR as a vicious cycle: "Because if I ask MSC to come back and harvest it will be another DR, a DR + DR. When will I harvest and sell this cane to make sure that I come out of a DR". According to the ASA, farmers side-sell because they want to avoid paying for services. The interviews suggest instead that 'free-riding' occurs because farmers are uncertain about the returns after harvesting. While some farmers seem confident predicting a DR, many farmers lack understanding of the information and statements they receive from MSC.

One influential authority in the area, farmer 1<sup>9</sup> perceived side-selling as *resistance*. He recalled that many farmers decided to sell to jaggaries: "We wanted to show the company that we are the owners of the cane". This coincides with Clapp's (1994) argument about a hegemonic relationship due to lost ownership. As opposed to Clapp (1994), farmers wanted to provoke MSC: "Maybe now by selling somewhere else the company will wake up and question and ask what the problem is." and "We wanted the company to come and take time to talk to the farmer but they could not come and kept quiet." Knowing that this resulted in tons of cane being diverted, this form of resistance is more disruptive than Clapp's (1994) description of side-selling as a continuous form of silent resistance that allows the hegemonic relationship between farmer and firm to persist.

The third theme is *Broken Social Contract*. MSC was not able to comply with obligations of fairness and reciprocity in farmers' micro-social contract. For farmer 11, norms of reciprocity were violated by not meeting contractual terms: "Now we have been loyal to this factory for a very long time, 40 years we have been very loyal and this is what we get in return? Depreciation and late payments. We feel exploited". Farmer 3 connected obligations of reciprocity to the location of the factory: "The factory is in Luhyaland but the people here do not feel like they are given the chance to own the factory. They want to feel like they own the factory whereby they employ some of their sons". Ownership of ancestral lands also plays a significant role. Farmer 1 explained that to establish the company, people from Mumias leased their ancestral lands. Therefore, farmers consider it fair that the community benefits from the company. By breaking obligations, MSC legitimised farmers to take ownership of the

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<sup>&</sup>lt;sup>9</sup> Exact role and title omitted for ethical reasons.

sugarcane: "Due to delayed harvesting the farmer himself can do the poaching and sell the cane. He was saying that a farmer can go in his own farm then he cuts the canes in between in the middle of the farm, then he sells" (Farmer 6). and "You have not assisted me to weed, fertilizer you have not given me so now I can do what I want" (Farmer 7).

#### 5.2.1 Discussion

The analysis shows that motivations for side-selling are indeed diverse. Perfectly rational and bounded rational decisions based on (expected) returns and liquidity constraints do drive side-selling among farmers in Mumias. Especially information asymmetry made it difficult for farmers to calculate costs and benefits, which gave rise to uncertainty about returns and deductions. Uncertainty was an important driver to free-ride, because farmers made economic decisions based on an *expected* negative balance. According to Beckert (1996), situations of uncertainty also breed 'irrational' decisions because human beings look for other decision-making mechanisms than costs and benefits. Although outcomes for farmers driven by utility maximization and broken social contracts were the same, their motivations were different. The assumption that utility maximisation and calculations of (expected) costs and benefits drive all farmers, as the existing CF literature has been suggesting, neglects this. Over time, strong social relationships were formed between some farmers and MSC. Due to contextual changes discussed in the next section, MSC could not fulfill its obligations of reciprocity and fairness and became morally blind in the eyes of farmers. The next section will conduct a retrospective analysis to investigate how the context that fuels the broken social contract motivation for side-selling emerged.

#### 5.3 Change over time: Cognition, Institutions and Networks

Three elements in the Economic Sociology Framework (Beckert, 2010) will help to assess why the broken social contract motivation for side-selling emerged: a) how institutions influence the structure of social networks, b) how social networks diffuse cognitive frames, c) the interplay between institutions and cognitive frames (See figure 1). MSC underwent three key changes over time<sup>10 11</sup>: mismanagement under new top-management, intensified competition and weakened firm-farmer relationships. According to farmers, managerial changes in 2003 initiated corruption, which affected performance and firm-farmer relationships. After KPMG's audit report (Gibendi, 2015), corruption can hardly be denied and is likely to have intensified cash shortages and increased distrust. However, according to parliamentary proceedings side-selling first started as a problem in 2000 (Chambers, 2015), which suggests side-selling had risen before the management change. Company representatives argue that competition explains the current bad performance as well as the weakened relationship with

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<sup>&</sup>lt;sup>10</sup> Appendices 3.2 and 3.3 contain the codebook and additional quotes from farmers to support statements in this section.

<sup>&</sup>lt;sup>11</sup> Appendix 4 contains quotes from employees to support statements in this section.

farmers. The next section shows that the decline in frequency and reciprocity in firm-farmer relationships can be better explained by a rightsizing strategy following liberalisation in 1992. This is not to downplay that mismanagement occurred, but to show that the introduction of free market initiated changes that would influence the firm-farmer relationship before the new management came on board in 2003. For this reason, the analysis will focus on competition and firm-farmer relationships.

#### 5.3.1 Institutions influence the structure of social networks

Since the 1980s, free markets became the dominant economic norm enforced through structural adjustment programs by the IMF and World Bank (Stein, 2008). Accordingly, the Kenyan government liberalised the sugar sector and competition was gradually introduced (Rono, 2002; Mulwa, Emrouznejad & Murithi, 2009). These changes and the rise in competition put pressure on sugar millers to improve their efficiency. In order to cut operational costs, rightsizing had become an important aspect of MSC's strategy (Otsyulah & Nasibi, 2015). Rightsizing means reducing the number of employees. In 2012, MSC had 5400 staff members, which by 2012 had declined to 1755 (ibid.) and by 2014 to 1600 (The Kenya Gazette, 1995). Otsyulah & Nasibi (2015) report that "most non-core operations have been outsourced. They include cane cutting, transport, estate services management, pharmacy and security" (p.320). This meant that multiple activities involving communication with the farmers were scrapped, re-structured or had been delegated to sub-contractors. Replacing in house services with intermediaries introduced new actors into firm-farmer networks and reduced the number of interactions between farmers and company employees.

The need to reduce costs shifted priorities to core production processes. This affected the firm-farmer relationship in a number of ways. Firstly, farmers experienced a decline in reach of information. There used to be active supervisors who facilitated the information flow from the farmer to the top management. At its inception, MSC worked with 48 headmen and 17 supervisors on a ratio of 1 staff member per 50 farmers (Holtham & Hazlewood, 2011). Field staff visited frequently to monitor cane growth and to give advice (ibid.). If farmers were unable to weed, the company would support them with casual laborers (ibid.). Currently, although some supervisors and field assistants are still present, farmers and company representatives state that MSC relies on block leaders to mediate communication between farmers and MSC. According to one farmer, block leaders forward process related information about harvesting or land preparation to inform their supervisors and lower management, but information about process inefficiencies and farmers' challenges does not reach the company or top management. In addition, the ADM, confirms that MSC does have a close relationship with block leaders. They provide MSC with process related information but also give feedback, recommend changes and report when farmers plan to side-sell.

Farmers conclude that information gets blocked based on a lack of visible and noticeable improvements following the challenges they raise. However, interviews with MSC employees reveal

that capital shortages form a barrier to improving the relationship with farmers. The ADM is aware of farmers' request for more field staff, but notes that it is "not cost-effective". He also states that providing fertilizers is a heavy investment for the company which it cannot fulfill constantly. Furthermore, the agronomist also speaks about limited funds available to invest in new cane varieties that could benefit the farmer. MSC tries to look for innovative ways to improve the relationship with farmers. For example, it invested in motorcycles for field staff so they reach more farmers within a shorter time span and the company ran a trial sugarcane diary project as a complementary way to diversify farmers' income. Yet, the dairy project has only been rolled out on a small scale and farmers did not mention improvements in the relationship because of motorcycles, so it seems like attempts to improve the relationship do not reach all farmers.

Secondly, farmers experienced a decline in reciprocity. The company receives information from farmers via block leaders, but farmers do not receive a response when asking for information and explanation from the company. Two authorities confirm, based on an investigation they conducted that field staff does not clearly explain statements to illiterate farmers. Similarly, when farmers protested at the company gate, nobody responded to enquire about their challenges. With 200 supervisors and field assistants left to serve 83,000 farmers, a decline in reciprocity is no surprise. Also the frequency of communication declined. Beforehand, zone leaders and field assistants used to give feedback and used to monitor if farmers have fertilizer, can weed and if the farm is well-maintained. According to the ADM, responsibilities of field staff today are centered around harvesting and recruitment. Following these changes in relationship with MSC, farmers conclude that company representatives "have no time for the farmer" and "they think we are fools that cannot help the company with anything".

A third change in the farmer-firm relationship is a lack of transparency about internal processes. This created unawareness and misunderstanding among farmers. One farmer explains that the company announced a three-month closure, but did not share the reason with farmers. In addition, farmers do not understand why they receive a negative balance on their statement: "The depreciation, I do not understand where it came from. Maybe if the company owners tell me what it is, I can know. I did not ask for money from the company and yet the company claims I owe them some money." The ASA, however, is under the impression that farmers do understand why they receive deductions. Schoenherr et al. (2015) find that information about processes enhances trust in buyer-supplier relationships. This study suggests that also the reverse is true. One farmer observed that MSC charges extremely high transport costs and draws a conclusion based on that: "how if the distance is so short, can the costs be higher than if I transport my cane to another firm? There must be a faulty play in between". The absence of mutual understanding about processes through a breakdown in communication, reinforced distrust between farmers and MSC. So far, these findings confirm that communication and information exchange are an important determinant of relationship strength. Following a breakdown in communication, ties between MSC and regular farmers have become increasingly fragile and less close

over time. At the same time, the relationship between MSC and block leaders is close and has become more important due to the reduction of field staff.

Apart from changes in existing ties, competition also created opportunities for new actors. The agronomist at MSC states that before, the sector was regulated and no sugar companies were allowed into the Mumias Sugar zone. The entrance of new firms led to excess milling capacity in the region, which intensified unfair competition. The agronomist states that competitors moved their weight bridges and buying centers to the edges of the Mumias Sugar zone. Factories located 80 km away could now buy sugar cane from the Mumias Sugar zone. This opened up opportunities for traders and transporters to get involved in side-selling. Farmers suggest that this was particularly the case after MSC started working with sub-contracted transporters following privatisation. The reduction of staff also played a role considering the SO states that: "I am expected to control but.. we are not everywhere, we are few in numbers.". Rightsising may also have enabled side-selling by creating unemployment of former employees. One farmer notes that actors involved in side-selling are former employees and former contractors of MSC who currently do not benefit from the company. Thus, competition and rightsising gave rise to networks of traders and transporters who connected farmers to competing millers and jaggaries.

To conclude, competition was introduced in the Sugar industry of Western Kenya through liberalisation. Pressure on firms to reduce costs and to increase efficiency changed the nature and structure of the relationship between farmers and the company. As a result of rightsizing and capital shortages, MSC has become embedded in a networks with fewer strong ties and many distrusted weak ties. The structure resembles Uzzi's (1997) integrated network whereby strong ties (block leaders) mediate communication with weak ties (farmers). The latter is a result of a break-down in interaction of supervisors and managers with farmers directly. Uzzi (1997) argues that networks with a combination of weak and strong ties are ideal, which is contrary to what the Mumias Sugar case suggests. The successfulness of this networks structure in CFSs seems to depend on the level of trust in weak ties that connect farmers to MSC via block leaders. Distrust in the ability of block leaders to address challenges of farmers is rife. In short, the introduction of new institutional norms, competition, influenced the nature of firm-farmer relationships and the structure of firm-farmer networks. While these firm-farmer networks became weaker, new social networks of traders emerged that reinforced the cognition of a broken social contract.

#### 5.3.2 Social networks shape and diffuse cognitive frames

The previous section demonstrated that competition opened up opportunities for traders to play an active role in side-selling. According to farmers, traders recognise when farmers suffer and convince them to transact. When doing so they stress that the company did not adhere to its commitment:

"We have middlemen who will see our suffering and who will see our plight. He says listen we can do this in the middle of the night, why are you suffering and yet the factory has stolen a lot of money from you? ... They did not give you fertilizer, they did not harvest your cane, and they did not pay you as stated in the contract so why are you still trying to supply them?"

In trying to convince farmers, these newly formed networks strengthen the cognition of violated reciprocity and fairness in the mind of farmers. This suggests that the involvement of traders could have contributed to shaping farmers' motivation for side-selling.

Furthermore, farmers receive information about internal processes and mismanagement at the company through networks of friends, family and acquaintances who are employed at MSC or observe misconduct of transporters on the way. While the strength of firm-farmer information channels declined, social networks between friends, families and acquaintances seem to have persisted and spread information rapidly. The ADM confirms that negative and positive experiences affect MSC fast because they spread through social networks. Community meetings, called Barazzaz are one of the tools farmers use to disseminate information. Malpractice is a common subject for discussion among farmers: "I was following up after my sugar cane was being transported and found out from people around that sugar cane had been removed from the truck". A farmer explains that complaints as such are being discussed at these meetings: "They learn from barazzaz [meeting]... Now you will hear so many complaints from farmers who raised issues and farmers realise that it is all over the zone. So problems have really reached all farmers, they have shared complaints at length in barazzaz".

While firm-farmer relationships and communication channels eroded, informal social networks persisted and spread information about firm and subcontractor defaults. These networks disseminated and thereby strengthened beliefs of distrust about MSC. Information about efforts of the company to improve the firm-farmer relationship were hardly mentioned by farmers. Instead farmers felt that the firm was not listening to them, which suggests that firm-farmer information channels spreading this information were weaker than social networks. I witnessed the experience of one farmer who initially refused to plant sugarcane because other farmers had gotten a negative balance (DR). Following the exceptional opportunity to have a conversation with an MSC staff member, the farmer decided to start planting sugar cane again. Thus in combination with weakened links and less opportunities for conversations between MSC and farmers, new networks of traders and transporters strengthen beliefs in a broken social contract while social networks strengthen beliefs of distrust about MSC.

## 5.3.3. Discussion: Contradiction between cognition and institutions

The previous paragraphs showed how liberalisation and rightsizing strategies led to a breakdown in firm-farmer relationships. Strong social relations which MSC had formed with smallholder farmers over the course of three decades eroded, whereas new profit opportunities gave rise to networks of traders and transporters. These new networks reinforced the belief that MSC broke norms of reciprocity in the mind of the farmers and social networks disseminated information that fueled distrust towards

MSC. These networks were more effective in spreading information compared to firm-farmer networks. Due to a lack of resources, MSC was not able to communicate with farmers on a large scale or to effectively spread news about how they attempt to tackle problems. It is argued here that these processes have contributed to strengthening the cognition of a broken social contract in the mind of a group of farmers.

Beckert (2010) postulates that instability is a result of a contradiction between networks, institutions and cognition following a change in one elements. The introduction of competition led to a disconnection between institutions and cognition. Norms of utility maximisation in liberalised market institutions introduced in Western Kenya have not become fully ingrained in farmers' minds (Appendix 6). As opposed to economic theory which assumes that the influence of competition on economic behavior can be fully predicted by utility maximisation, this study has shown that the way in which competition shapes economic behavior can also be mediated by the strength of buyer-supplier relations and social networks. Some farmers responded to opportunities for higher returns, while other farmers responded to the erosion of reciprocity and fairness in firm-farmer relations.

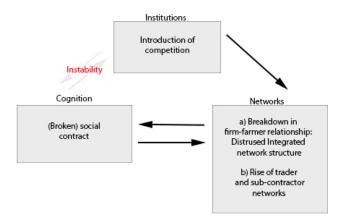


Figure 6. Applied Economic Sociology Framework

## 6. Conclusion

This dissertation sought to explain the drivers of side selling among sugarcane farmers in Mumias, Kenya. Explanations for side-selling in the existing contract-farming literature build on the premise that competition triggers side-selling because farmers make a (bounded) rational decision to maximise (expected) utility. In doing so these accounts forego that economy and society are interlinked. To fill this gap, Beckert's (2010) Economic Sociology Framework has been applied to study how interconnections between cognition, institutions and networks explain economic behavior such as side-selling. By adopting this lens, this study shows that not all farmers side-sell to maximise utility. Instead, for a group of farmers the influence of competition on motivations for economic behavior is mediated by the structure and quality of networks. These farmers perceive the contract with Mumias Sugar

Company as a social relationship based on norms of reciprocity and fairness. In this case, side-selling represents a response to 'moral blindeness' of the firm when it violated farmers' norms. In Mumias, this happened when MSC implemented cost reduction strategies to cope with liberalisation of the industry, which eroded firm-farmer relationships and influenced networks structures.

These results also add to the debate about solutions to overcome inequality in CFSs. According to institutional economic theory, markets have built-in accountability mechanisms that increase actors bargaining power by giving them the option to exit. Glover (1987) and Key & Runstein (1999) use this argument to advocate for alternative sales outlets in order to improve benefits to farmers. This study counters their expectation and shows that farmers in Mumias are currently worse off than under monopsony. This case study suggests that competition cannot be introduced as a blueprint or a golden rule but needs to fit with the structure of the sector. Policy-makers need to consider how public-private partnerships focused on sustaining firm-farmer relationships or re-structuring of agricultural sectors can overcome the trade-off between competition and CF prior to introducing free markets.

Furthermore, these results indicate that under competition the firm will only be able to retain farmers with a social contract mentality if it is able to sustain a social relationship on the basis of the norms in farmers' micro-social contract. Price incentives may not be as effective for this group of farmers. Yet, whether it is realistic for companies to sustain these relationships should be questioned. Poulton et al. (2004) argue that competition and long-term investment are incompatible. The need to reduce costs and its impact suggests the same in the case study of MSC, which strengthens their argument.

Future research can test findings in this study for different types of CFSs, using both qualitative and quantitative methods. Despite the rigor aimed at, the study has several limitations and suggestions for future research. A limited number of farmers admitted to be involved in side-selling, which did not allow for a rigorous cross-section based on different characteristics including gender, farm size or ethnicity. A cross-section can help to observe how different motivations for side-selling are linked to different groups of farmers. Furthermore, future studies may want to include transporters and traders into their study design to better understand their role in side-selling. In general, this paper should be considered as a foundation, whereby future research should add more nuance to this economic-sociological explanation for side-selling. After all, this study shows that side-selling cannot be assumed to follow an economic logic, but is worth studying in depth.

### **Bibliography**

- Abebe, G., Bijman, J., Kemp, R., Omta, O., & Tsegaye, A. (2013). Contract farming configuration: Smallholders' preferences for contract design attributes. *Food Policy*, 40, 14-24.
- Anyanzwa, J. (2014, April 2). Mumias Sugar suspends CEO Peter Kebati and Commercial Director Paul Turgor. Retrieved from http://www.standardmedia.co.ke/business/article/2000108415/mumias-board-sends-two-top-managers-packing
- Appleton, J. (2006). Analysing qualitative interview data: addressing issues of validity and reliability. *Journal of Advanced Nursing*, 22(5), 993-997.
- Arnsperger, C. & Varoufakis, Y. (2006). What is neoclassical economics? The three axioms responsible for its theoretical oeuvre, practical irrelevance and, thus, discursive power. *Panoeconomicus*, *53*(1), 5-18.
- Barrett, C., Bachke, M., Bellemare, M., Michelson, H., Narayanan, S., & Walker, T. (2012). Smallholder participation in contract farming: Comparative evidence from five countries. *World Development*, 40(4), 715-730.
- Beckert, J. (1996). What is sociological about economic sociology? Uncertainty and the embeddedness of economic action. *Theory and Society*, 25(6), 803-840.
- Beckert, J. (2010). How Do Fields Change? The Interrelations of Institutions, Networks, and Cognition in the Dynamics of Markets. *Organization Studies*, *31*(5), 605-627.
- Bellemare, M. (2010). Agricultural extension and imperfect supervision in contract farming: evidence from Madagascar. *Agricultural Economics*, 41(6), 507-517.
- Bijman, J. (2008). *Contract farming in developing countries: An overiew*. Wageningen: Wageningen University and Research Centre. Retrieved from https://www.wageningenur.nl/upload\_mm/5/c/b/79333121-6f4b-4f86-9e8e-0a1782e784d6 ReviewContractFarming.pdf
- Bitenieks, M. (2013, August 6). KENYA: Sugar board ties new mill licenses to co-gen and ethanol. Retrieved from http://bonsucro.com/site/kenya\_sugar\_board/
- Boeren, F.C. & Sithole, V.M. (1989). Contract farming and outgrower schemes in Swaziland:

  Lessons from vuvulane irrigated farms and mphetseni pineapple settlement scheme. Kwaluseni,

  Swaziland: University of Swaziland, Social Science Research Unit.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

- Cao, Z. & Lumineau, F. (2015). Revisiting the interplay between contractual and relational governance: A qualitative and meta-analytic investigation. *Journal of Operations Management*, 33-34, 15-42.
- Casaburi, L., Kremer, M., & Mullainthan, S. (Forthcoming). Contract farming and agricultural productivity in Western Kenya. In S. Johnson & D. Well (Eds.), *African Successes: sustainable growth*. Chicago, CHI: University of Chicago press. Retrieved from http://www.nber.org/chapters/c13437.pdf
- Chambers, C. (2015). *The crisis facing the sugar industry in Kenya*. Nairobi: Kenya National Assembly, 11th Parliament. Retrieved from Parliament of Kenya: http://www.parliament.go.ke/the-national-assembly/committees/committee-reports/item/download/838 c0559c0e4fe4234a06ac46a92ed46336
- Clapp, R. (1994). The moral economy of the contract. In P. Little & M. Watts (Eds.), *Living under contract: contract farming and agrarian transformation in sub-Saharan Africa* (pp. 78-96) Madison, WI: University of Wisconsin press.
- Corts, K. & Singh, J. (2004). The effect of repeated interaction on contract choice: Evidence from offshore drilling. *Journal of Law, Economics, and Organization*, 20(1), 230-260.
- Do, Q. (2003). Asymmetric Information. Retrieved from the World Bank: http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/Asymmetric Info Sep2003.pdf
- Dobbin, F. (2004). The new economic sociology: A reader. Princeton, NJ: Princeton University Press.
- Donaldson, T. & Dunfee, T. (1994). Toward a unified conception of business ethics: Integrative social contracts theory. *The Academy of Management Review*, 19(2), 252.
- Eaton, C. & Shepherd, A. (2001). *Contract farming: partnerships for growth*. FAO Agricultural Services Bulletin No. 145. Rome: Food and Agriculture Organisation.
- Eckerd, S. & Hill, J. (2012). The buyer-supplier social contract: information sharing as a deterrent to unethical behaviors. *International Journal of Operations & Production Management*, 32(2), 238-255.
- Fafchamps, M. (2004). *Market institutions in sub-Saharan Africa: Theory and evidence*. Cambridge, MA: MIT Press.

- Finlay, L. (2002). "Outing" the researcher: the provenance, process and practice of reflexivity. *Qualitative Health Research*, 12(4), 531-545.
- Finlay, L. (2014). Five lenses for the reflexive interviewer. In J. Gubrium, J. Holstein, A. Marvasti & K. McKinney (Eds.), *The SAGE handbook of interview research: The complexity of the craft* (pp. 317-332). Thousand Oaks, CA: SAGE Publications.
- Fisher, R. (1992) Social Desirability Bias and the Validity of Indirect Questioning. *Journal of Consumer Research*, 20(2), 2013-385.
- Flick, U. (2009). An introduction to qualitative research (4th ed). London: SAGE Publications.
- Fligstein, N. & Dauter, L. (2007). The sociology of markets. *Annual Review of Sociologie*, 33(1), 105-128.
- Friedkin, N. (1982). Information flow through strong and weak ties in intra-organizational social networks. *Social Networks*, *3*(4), 273-285.
- Gelaw, F., Speelman, S., & Van Huylenbroeck, G. (2016). Farmers' marketing preferences in local coffee markets: Evidence from a choice experiment in Ethiopia. *Food Policy*, *61*, 92-102.
- Gibbon, P. & Ponte, S. (2005). *Trading Down: Africa, Value Chains and the Global Economy*. Philadelphia, PA: Temple University Press.
- Gibendi, R. (2015, February 18). How Mumias Sugar bosses brought firm to its knees. Retrieved from http://www.businessdailyafrica.com/Corporate-News/How-Mumias-Sugar-bosses-brought-firm-to-its-knees/539550-2627550-hilucx/index.html
- Gillham, B. (2005). Research Interviewing. Maidenhead: Open University Press.
- Glover, D. (1987). Increasing the benefits to smallholders from contract farming: Problems for farmers' organizations and policy makers. *World Development*, *15*(4), 441-448.
- Glover, D. (1990). Contract farming and outgrower schemes in east and southern Africa. *Journal of Agricultural Economics*, 41(3), 303-315.
- Glover, D. & Kusterer, K. (1990). Small farmers, big business: Contract farming and rural development. New York, NY: St. Martin's Press.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481-510.

- Grimm, P. (2010). Social Desirability Bias. *Wiley International Encyclopedia of Marketing 2*. DOI: 10.1002/9781444316568.wiem02057
- Grosh, B. (1994). Contract farming in Africa: an application of new institutional economics. *Journal Of African Economies*, 3(2), 231-261.
- Guo, H. & Jolly, R. (2008). Contractual arrangements and enforcement in transition agriculture: Theory and evidence from China. *Food Policy*, *33*(6), 570-575.
- Hobbs, J. & Young, L. (1999). Increasing Vertical Linkages in Agrifood Supply Chains: A Conceptual Model and Some Preliminary Evidence. *Canadian Journal of Agricultural Economics*, 47(4), 478-478.
- Hodkinson, P. & Hodkinson, H. (2001). *The strength and limitations of case study research*. Paper presented at the Learning and Skills Development Agency conference: Making an impact on policy and practice, 5-7 December, Cambridge, UK.
- Hoeffler, H. (2006). *Promoting the Kenyan potato value chain: can contract farming help build trust and reduce transaction risks?* Paper presented at the Proceedings of the 99th EAAE (European Association of Agricultural Economists) Seminar, Trust and Risks in Business Networks, 8–10 February, Bonn, Germany.
- Holtham, G., & Hazlewood, A. (2011). Aid and inequality in Kenya: British development assistance to Kenya. New York, NY: Routledge.
- Jaffee, S. (1994). Contract farming in the shadow of competitive markets: the experience of Kenyan horticulture. In P. Little & M. Watts (Eds.), *Living under contract: farming and agrarian transformation in sub-Saharan Africa* (pp. 97-139). Madison, WI: The University of Wisconsin press.
- Johnson, J. M. (2002). In-depth interviewing. In J. F. Gubrium & J. Holstein (Eds.), Handbook of Interview Research: Context and Method (pp. 103–119). Thousand Oaks, CA: SAGE Publications.
- Kalnins, A. & Mayer, K. (2004). Relationships and hybrid contracts: An analysis of contract choice in information technology. *Journal of Law, Economics and Organization*, 20(1), 207-229.
- Key, N. & Runsten, D. (1999). Contract farming, smallholders, and rural development in Latin America: The organization of agroprocessing firms and the scale of outgrower production. *World Development*, 27(2), 381-401.

Leguizamon, F., Selva, G., & Santos, M. (2016). Small farmer suppliers from local to global. *Journal of Business Research*, 69(10), 4520-4525.

- Levin, D. & Cross, R. (2004). The strength of weak ties you can trust: the mediating role of trust in effective knowledge transfer. *Management Science*, 50(11), 1477-1490.
- Li, Y., Xie, E., Teo, H., & Peng, M. (2010). Formal control and social control in domestic and international buyer–supplier relationships. *Journal of Operations Management*, 28(4), 333-344.
- Lu, P., Guo, S., Qian, L., He, P., & Xu, X. (2015). The effectiveness of contractual and relational governances in construction projects in China. *International Journal of Project Management*, 33(1), 212-222.
- Masuka, G. (2012). Contests and struggle: Cotton farmers and COTTCO in Rushinga district, Zimbabwe, 1999–2006. *Geoforum*, 43(3), 573-584.
- Maxon, M. (1992). Small-scale and large-scale agriculture since independence. In W. Ochieng & R. Maxon (Eds.), *An Economic History of Kenya* (pp. 273-296). Nairobi: East Africa Educational Publishers.
- McCarter, M. & Northcraft, G. (2007). Happy together? Insights and implications of viewing managed supply chains as a social dilemma. *Journal of Operations Management*, 25(2), 498-511.
- Miles, M. & Huberman, A. (1994). Qualitative data analysis. Thousand Oaks, CA: Sage Publications.
- Miyata, S., Minot, N., & Hu, D. (2009). Impact of contract farming on income: Linking small farmers, packers, and supermarkets in China. *World Development*, *37*(11), 1781-1790.
- Morris, C. (1999). The social contract theorists. Lanham, MD: Rowman & Littlefield.
- Mujawamariya, G., D'Haese, M., & Speelman, S. (2013). Exploring double side-selling in cooperatives, case study of four coffee cooperatives in Rwanda. *Food Policy*, *39*, 72-83.
- Mulwa, M., Emrouznejad, A., & Murithi, F. (2009). Impact of liberalization on efficiency and productivity of sugar industry in Kenya. *Journal of Economic Studies*, *36*(3), 250-264.
- Mumias Sugar Company Ltd. (2012). *Annual report and financial statements 2011*. Retrieved from http://www.mumias-sugar.com/uploads/The%20Financial%20Report%202011.pdf
- Mumias Sugar Company Ltd. (2013). *Annual report and financial statements 2012*. Retrieved from http://www.mumias-sugar.com/index.php?page=annual-reports

Mumias Sugar Company Ltd. (2016). *Annual report and financial statements 2015*. Retrieved from http://www.mumias-sugar.com/index.php?page=annual-reports

- Nash, J. & Calonico, J. (1993). *Institutions in modern society: Meanings forms and character*. Dix Hills, NY: General Hall.
- Nee, V. (2005). The new institutionalisms in economic sociology. In N. Smelser & R. Swedberg (Eds.), *The Handbook of Economic Sociology* (pp. 49-74). Princeton, NJ: Princeton University Press.
- North, D. (1991). Institutions. *The Journal of Economic Perspectives*, 5(1), 97-112.
- North, D. (2005). *Understanding the process of economic change*. Princeton, NJ: Princeton University Press.
- Otsyulah, J.O. & Nasibi, M. (2015) Effect of rightsizing on productivity of Mumias Sugar Company in Kenya. *The International Journal of Business & Management*, *3*(3), 319-326.
- Paul, S. (1992). Accountability in public services: exit, voice and control, *World Development*, 20(7), 1047-1060.
- Poppo, L., Zhou, K., & Rhu, S. (2008). Alternative origins to interorganizational trust: An interdependence perspective on the shadow of the past and the shadow of the future. *Organization Science*, 19(1), 39-55.
- Porter, G. & Phillips-Howard, K. (1997). Comparing contracts: An evaluation of contract farming schemes in Africa. *World Development*, 25(2), 227-238.
- Poulton, C., Gibbon, P., Hanyani-Mlambo, B., Kydd, J., Maro, W., & Larsen, M., Osorio, A., Tschirley, D., & Zulu, B. (2004). Competition and coordination in liberalized African cotton market systems. *World Development*, 32(3), 519-536.
- Rono, J. (2002). The impact of structural adjustment programmes on Kenyan society. *Journal of Social Development in Africa*, 17(1), 81-98.
- Ryall, M. & Sampson, R. (2009). Formal contracts in the presence of relational enforcement mechanisms: Evidence from technology development projects. *Management Science*, *55*(6), 906-925.
- Saxton, T. (1997). The effects of partner and relationship characteristics on alliance outcomes. *Academy of Management Journal*, 40(2), 443-461.

Schoenherr, T., Narayanan, S., & Narasimhan, R. (2015). Trust formation in outsourcing relationships: A social exchange theoretic perspective. *International Journal of Production Economics*, 169, 401-412.

- Sen, A. (1999). Development as freedom. New York, NY: Knopf.
- Singh, S. (2002). Contracting out solutions: Political economy of contract farming in the Indian Punjab. *World Development*, *30*(9), 1621-1638.
- Sivramkrishna, S. & Jyotishi, A. (2008). Monopsonistic exploitation in contract farming: articulating a strategy for grower cooperation. *Journal Of International Development*, 20(3), 280-296.
- Skovdal, M, & Cornish, F. (2015). *Qualitative research for development: a guide for practitioners*. Rugby, UK: Practical Action Publishing.
- Smelser, N. & Swedberg, R. (1994). *The handbook of economic sociology*. Princeton, NJ: Princeton University Press.
- Stein, H. (2008). From structural adjustment to poverty reduction, adjustment to the crisis and the crisis of adjustment. In H. Stein, *Beyond the World Bank Agenda* (pp. 25-54). Chicago, CHI: University of Chicago Press.
- The Kenya Gazette (1995, February 3). Published by Authority of the republic of Kenya. Vol XCVII, No 6, p. 160. Retrieved from Google Books: https://books.google.co.uk/books?id=BRGu\_V52oMQC&pg=PA160&lpg=PA160&dq=Kenya+Gazette,+1995+mumias+sugar+staff&source=bl&ots=aFFvP-xz3c&sig=em\_aXlfEWiFaAjb9MB42HNthWy0&hl=nl&sa=X&ved=0ahUKEwiBuueS0crOAhVIJcAKHd1JBEUQ6AEIHDAA#v=onepage&q=Kenya%20Gazette%2C%201995%20mumias%20sugar%20staff&f=false
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35-67.
- Waireri, M., Kirigua, M., & Misoka, A. (2013). *Mumias; Fraught by industry harshness*. Nairobi: Sterling Capital. Retrieved from http://www.sterlingib.com/index.php/component/docman/doc\_download/21-mumias-sugar-ltd-fraught-by-industry-s-harshness-july-2013?Itemid=
- Wallenburg, C. & Schäffler, T. (2014). The interplay of relational governance and formal control in horizontal alliances: A social contract perspective. *Journal of Supply Chain Management*, 50(2), 41-58.

Wang, H., Zhang, Y., & Wu, L. (2011). Is contract farming a risk management instrument for Chinese farmers? *China Agriculture Economic Review*, *3*(4), 489-505.

- Wangalwa, E. (2015, March 5). Kenya wins one-year COMESA extension for sugar imports. Retrieved from http://www.cnbcafrica.com/news/east-africa/2015/03/05/kenya-comesa-reprieve/?utm\_source=CNBC+Daily+Newsletter&utm\_campaign=55168e7b69-RSS\_EMAIL\_CAMPAIGN\_Daily&utm\_medium=email&utm\_term=0\_37ea1a8e5e-55168e7b69-216162101
- Warning, M. & Key, N. (2002). The social performance and distributional consequences of contract farming: An equilibrium analysis of the Arachide de Bouche Program in Senegal. *World Development*, 30(2), 255-263.
- Watts, M. (1994). Living under contract: contract faming, agrarian restructuring and flexible accumulation. In P. Little & M. Watts (Eds.), *Living under contract: contract-farming and agrarian transformation in sub-Saharan Africa*. (pp. 21-77). Madison, WI: The University of Wisconsin press.
- Williamson, O. (1985). The economic institutions of capitalism. New York, NY: Free press.
- Zukin, S. & DiMaggio, P. (1990). *Structures of capital: The social organization of the economy*. Cambridge, UK: Cambridge University Press.

## **Appendix**

### **Appendix 1 Information Sheet & consent form**

Principle investigator: Milou Vanmulken

University: London School of Economics and Political Science Project: Dissertation Development Management Research

Contact: m.e.vanmulken@lse.ac.uk, Milou.vanmulken@gmail.com

Phone number: +447593127619

This information sheet invites you to participate in this research project, titled "Contract farming in West-Kenya". First the information sheet provides you with background information about the study and if you decide to participate please complete the consent form on the second page.

#### Part I. Information sheet

#### **Introduction & invitation**

I would like to invite you to participate in this research, which is concerned with contracts and relationships between sugar cane farmers and processing companies such as Mumias Sugar Company. The aim of the interviews is to learn more about how farmers make decisions about where to sell their sugarcane, especially when they decide not to sell to the company they have a contract with (e.g. Mumias Sugar Company). I am going to give you more information about the study now. Should you not understand anything on this form, you can ask the researcher for an explanation.

#### Why is the researcher doing this project?

The project is part of my Masters at the London school of Economics and Political Science. It is hoped that this research can provide an improved understanding about farmers decision-making process when selling sugarcane. Findings can potentially inform efforts to create better relationships between farmers and companies.

#### What will I have to do if I take part?

- 1. There will be a short questionnaire with basic questions followed by a group discussion and/or interview with me.
- 2. When the researcher completes the study she will produce a summary of the findings which will be shared with you should you be interested.

#### How much time will participation involve?

Interviews will last no more than one hour.

#### Do I have to take part?

No, participation is voluntary and you are not obliged to take part. You may resume at any time during or after the interview without giving a reason. Furthermore, you can withdraw the information you provided until 10 August 2016.

#### Will my participation be kept confidential?

Yes, the researcher ensures that your identity remains confidential in recordings, transcripts and in the final report. This means that neither your name nor any information that can reveal your identity will be used.

#### What are the possible benefits of taking part?

You may find the subject interesting and like to share your experience. Your participation in this study will contribute to research that aims to inform companies about how to best work with farmers such that both benefit from the relationship.

#### What are possible disadvantages or risks?

You may be uncomfortable speaking about selling sugarcane outside the contract. To address these disadvantages and limit risks, I would like to stress that your participation will be anonymous and no information that reveals your identity will be disclosed to the company or the public.

#### What will happen to the results of the study?

The results will be part of a dissertation report. This report will be stored in the dissertation database of the London School of Economics, which is accessible for students and staff members of the school. Possibly, but unlikely the research will be published on the LSE website for the public access or may be published in a journal.

#### Who can I contact if I have any questions afterwards?

Milou Vanmulken

E-mail: m.e.vanmulken@lse.ac.uk Milou.vanmulken@gmail.com Phone number: +447593127619

#### Part 2. Consent Form

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Thank you for your interest in taking part in this research about contract farming in West-Kenya. Before you agree to take part, the person organising the research must have explained the project to you. If you have any questions arising from the information sheet or explanation already given to you, please ask the researcher before you to decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

#### Participant's Statement

I agree that:

- I have read the notes written above and the Information Sheet, and understand what the study involves.
- I understand if I decide at any time that I no longer wish to take part in this project, I can notify the researcher involved and withdraw without giving a reason.
- I understand that information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998 (UK).
- I understand that the information I submitted will be published as part of a report and I will be sent a copy. Confidentiality and anonymity will be maintained and it will not be possible to identify me from any publications.
- I understand that a copy of the interview transcript can be provided upon request.
- I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

Please choose one of the following: I agree that:

0	I agree that my participation will be recorded and I consent to the use of this material only for the purpose of this study, by the researcher in this study.  I do not agree that my participation will be recorded, but the researcher can take notes.
Name/c	
Signatu	re:
Date:	

## **Appendix 2 Interview guides**

#### Interview guide farmers\*

#### Part 0. Ice breakers

- 1. How long have you been farming sugarcane for MSC?
- 2. Are you currently a contracted or private farmer?
- 3. How do you decide where to sell your sugarcane? [Prompt: What options do you have?]
- 4. Do you consult family members or friends for advice?

#### Part 1. Side-selling (Private)\*

- 5. Have you ever heard of farmers who are contracted with Mumias Sugar Company and decide to sell their sugarcane to another company?
- 6. Why do you think they do that?
- 7. Do you see this as poaching?
- 8. Did you ever decide to sell you sugarcane to another company?
- 9. Why did you decide to sell your sugar cane to another company?
- 10. Did this decision benefit you? How?
- 11. How do you meet people who can buy your sugarcane?
- 12. Who are these people? Are they from the community?
- 13. Are there other actors involved?

#### Part 2. Relationships & networks

#### Farmer-firm relationship

- 1. How would you describe your relationship with MSC?
- 2. How does Mumias Sugar Company communicate with you?
- 3. Who is your main point of contact at Mumias Sugar Company? When do you contact this person?
- 4. How is your relationship with your person of contact? [Prompts: What is his/her role?]
- 5. Do you trust your person of contact? [Prompt: why?]
- 6. What information does he provide you with?

#### Change over time

- 7. How did the relationship between you and MSC change over time? [prompts: closeness, trust, frequency of interaction.]
- 8. Why did it change?
- 9. How would you describe the relationship before this change?

#### Networks

- 10. How do you stay informed about what is going on in the company?
- 11. How is your relationship with other farmers in the area?
- 12. Do these relationships help you in any way?
- 13. What are the responsibilities of MSC to the community according to you?

<sup>\*</sup>Farmers who did not observe side-selling or were not involved in side-selling were asked about their decision to end the contract relationship if applicable and otherwise the section was skipped.

<sup>\*</sup>Interviews were semi-structured so at times the researcher moved away from the interview guide to explore topics more in depth.

#### Interview guide MSC employees

This is a summary of questions asked to each participant and specific questions asked to different experts tailored to their expertise in the company:

#### General questions

- 1. Why do farmers engage in poaching?
- 2. Why is poaching a major problem at the moment?
- 3. Do you prefer to address poaching with formal enforcement? Why?
- 4. How would you describe the relationship between MSC and farmers?
- 5. How did the relationship between farmers and MSC change?
- 6. Why did it change?
- 7. How did competition influence the relationship between MSC and the farmer?

#### Agronomist

- 1. What is your responsibility towards farmers in the agronomy section?
- 2. How can agronomy enable or prevent poaching?
- 3. How can agronomy contribute to the relationship between MSC and farmers?

#### Agriculture Development Manager

- 8. What is your responsibility towards farmers in the agriculture department?
- 9. How do you inform and communicate with farmers?
- 10. What information does field staff provide you with?
- 11. How can your section enable or prevent poaching?

#### Agriculture Account Manager

- 12. What is your responsibility towards farmers?
- 13. What are the investment priorities of MSC at the moment? [Prompt: how did they change?]
- 14. What is the reason for delayed payments?
- 15. When are farmers informed about deductions?
- 16. How are they informed?

#### Security Manager

- 17. What is your responsibility towards farmers in the security section?
- 18. How does your team try to combat poaching?
- 19. What are the main challenges in combatting poaching?
- 20. How do you negotiate with farmers?
- 21. How would you describe your relationship with farmers?
- 22. How can cooperatives help to address poaching?

#### CSR Manager

- 1. What is your responsibility towards farmers in the Mumias Sugar Foundation?
- 2. Does CSR contribute to the relationship between MSC and the farmer?
- 3. How many farmers are you able to reach with CSR activities?

## **Appendix 3 Codebooks of Farmer Interviews**

This section presents the final codebooks as a product of the thematic analysis. They also include quotes to illustrate the meaning of the quote and to support the analysis. Since most focus groups were in KiLuhya with a translator in English, translations and quotes are sometimes phrased as "He is saying or she is saying".

3.1 Themes: Why did you engage in side-selling?

Theme	Codes	Example quotes
Income	Returns / price	<ul> <li>To eradicate poaching is to enhance how you are paying a farmer. If the factory pays the proceeds upon arrival at the factory the problem would be solved, because they would be paying more. [Farmer 9]</li> <li>If you can get better payments within the shortest time possible you are easily lured to take the sugar cane to where you get money. [Farmer 10]</li> <li>[Interviewer asks why side-sell?] Due to unawareness and the desire to have money [Farmer 5]</li> </ul>
	Liquidity constraints / Need for cash	<ul> <li>[Farmer 5] Because the company is taking too long to pay. I poached mainly due to poverty. I needed to pay things.</li> <li>[Farmer 8] That is where your cane is harvested today you have a child in school and it has been sent home because of fees and you have cane, even if it was contracted you have an alternative. The alternative is sell to a poacher because the poacher has money.</li> </ul>
	Distress / poverty	<ul> <li>Because we have to look for other ways to survive. We farmers can even take it to the other company without a letter of registration/administration [Farmer 1]</li> <li>Not necessarily price. It is just discomfort. You cannot have somebody's money for one year or six months. Someone budgeted to have his children in school, to pay dowry. You know dowry is a big aspect in our society. Once you tell your father in law I will pay dowry in August when you are expecting payment arriving and you cannot there is that shame. [Farmer 2]</li> </ul>
	Free-riding /Avoid DR	<ul> <li>I sold to a jaggary because I suspected a DR. [Farmer 3]</li> <li>Another aspect of poaching is understanding that the cane you see in your farm is going to give you a DR. You very well know here I have a DR so why would I take again that cane there and add misery on me. I better get the small money that poachers have there. [Farmer 8]</li> <li>I will make sure that I evade this DR. Because if I ask MSC to come back and harvest it will be another DR, a DR + DR. When will I harvest this cane to make sure that I come out of a DR. Look at also the timeframe, after 20 months you harvested the cane and you have a DR. Another 20 months and you have another DR so we are talking about almost 4 years. [Farmer 9]</li> </ul>
Resistance	-	<ul> <li>Farmers also wanted to show the company that they are the owners of the cane. [Farmer 1]</li> <li>They wanted to provoke the company so that they come and take time and come and talk to the farmer but they could not and just kept quiet. [Farmer 1]</li> <li>From their (company) understanding they may look at it as poaching but to me it was a kind of revenche. [Farmer 1]</li> </ul>
Broken social contract	Firm default	<ul> <li>They used to delay to harvest the cane and he used to sell the canes wherever he wants. Now you see he assumes it is his farm so he can just harvest the canes and sell them to another company or sell them to the jackery. [Farmer 4]</li> <li>Due to delayed harvesting the farmer himself can do the poaching and sell the cane. He was saying that a farmer can go in his own farm then he cuts the canes in between in the middle of the farm, then he sells. [Farmer 6]</li> <li>Now we have been loyal to this factory for a very long time. Over 40 years we have been very loyal but this is what we get in return. DRs and late payments. We feel exploited. [Farmer 11]</li> <li>Now a farmer tells MSC this is my farm and the plant is on my farm and you have not assisted me to weed, fertilizer you have not given me so now I can do what I want. [Farmer 7]</li> </ul>

Land	ship	The factory is in the Luyaland, but we do not feel like they are given the chance to own the factory. We want to feel like we own the factory whereby they employ some of our sons. It is contrary to expectations, now the beneficiaries of the factories. Now they feel like we are just a spectator (observer), there are people playing and you are just a spectator. [Farmer 3]  The community are the sole owners of the company. They are the people who gave the soil where the company has been building but they do not benefit from the company. Now it has become like this. Yes, it was ancestral land. Collection, farmers. They were just removed from their land to get land somewhere to build, but the owners of that land are still there. Some have sons who used to own that land who are also supposed to benefit from the company but they are not
		benefitting. They feel it is a pain. [Farmer 1]

## 3.2 Themes: What changed at Mumias Sugar Company over time?

Model	Theme	Code		Example quotes
Institutions	Competition	Rightsizing	<b>&gt;</b>	[Reduced numbers] MSC first that the people who used to come to the farmers, come to them, understanding the problems the farmers were having and the challenges they were going through they could get a solution to the problems. Nowadays they don't. They are not there.
			>	This started when they had these competitive sugar companies around. Kibos. It is close to hear and Butali. They use to pay better packages than here so farmers used to sneak their sugar cane to be paid better compared to what they had been paid in Mumias Sugar. In addition to this Mumias Sugar never had this raw products. Then Mumias started underperforming.
		Unfair competition	>	These other companies they bring their weigh bridges in zones that are owned by Mumias Sugar. That is an issue that contributes to cane poaching. These are competitors of Mumias Sugar.
Networks	Use of Sub- contractors		>	There is a correlation between the people who are supposed to bring Sugar cane to MSC and you find that these contractors own the other factories so they provide the sugar cane to these factories and yet they are contracted to Mumias Sugar to bring sugar cane.
			>	Earlier on when MSC was still using its own tractors, everything it was its own the farmer never used to get a DR. Now when they started to engage these sub-contractors that is where the problem started cropping from.
			>	Also they should do away with the main contractors and the sub- contractors because actually most of the corruption and poaching is done by the contractors.
	Firm-farmer	Decline	>	The problem of poaching is because of bad relationships
	relationship	reciprocity		between farmers, the neighbors, people from within the company. That bad relationship results into poaching. They steal because they do not have any interest in the company anymore. People are from around. Even farmers.
			>	Also people went around and those who do poaching due to the poor relationship they have with the company. They feel like they are not going to benefit anything from Mumias Sugar Company even if they supply directly the cane there so they opt to do poaching and get a little cash from there.
		Decline reach	>	And when he takes time and go to the company they don't listen to him. They pretend to be listening but the information you tell them they will not take it anywhere.

		Decline	>	He lost trust in the employees, he felt they were not trustworthy.
		frequency of contact		The people who used to come to the farmers, come to them, understanding the problems the farmers were having and the challenges they were going through they could get a solution to the problems. Nowadays they don't. They are not there.
		Mis- understanding	<b>&gt;</b>	She does not know because by the time at first she did everything at the farm. The only thing the company did was to bring the fertilizer and sugar cane cutting and seeds maybe then later on when she went to get her statement she found out she got a DR but she did not even understand because she did everything.
	Information networks	-	A	[How do you know?] He was employed there but he was also a farmer. When he harvested his sugar cane there was a problem with his statement. He made followed-up and went to a friend at a union who said let me connect you to a person from the top management. This person of the top management asked me to wait 14 days then he worked on those things and then the statement was corrected. That is how I discovered that there is some stealing and fishy things in this company. [Other farmer] From friends and relatives who work there.  We have those who are working there. Casuals. They can know, they say.  [Barrazzaz] They share with friends and neighbors. They also learn from barazzaz which is a meeting in a certain area which mobilises people. Now you will hear so many complaints from farmers who raised issues and they realize that it is all over and the farmers learn how it is happening here and how it is happening also there. So problems have really reached all farmers, they have shared at length, they had these complaints in barazzaz and they see it.
Corruption	Top management	-	<b>&gt;</b>	Poaching became extensive when the management was going down. Some of the contractors have their own small companies outside Mumias. Now they could even steal Sugar Cane from here and get it to their company and it is because they discovered the weakness of MSC. When the management changed from Booker to an African it is where the problem started.
O	Employees	-	>	But if you are to compromise security of the factory you can really poach. It used to happen. The problem with us and even the employees of MSC, if you have money and you can play around with these employees even if the security. You give them the money and you do whatever you want with this cane. There is a lot of corruption.
Cognition	See table 2.			

## 3.3 Additional quotes to support arguments

Section	Topic	Example quote
5.1 Sideselling in practice	Definition	<ul> <li>There is collusion between truck drivers and poachers, because drivers have no interest in getting all the cane to the company.</li> <li>Theft is there is during the transport when they transport this sugar cane on the way there are some people who are maybe in the company or whatever they will now start reducing these sugar cane from the truck and start selling to people, to Jaggaries.</li> <li>A poacher comes and tells them why are you waiting. Your cane is ready. Let us just poach. But if you are to compromise security of the factory you can really poach. It used to happen.</li> <li>Understanding poaching in this scenario is we have serious middlemen. We have middlemen who will see your suffering and who will see your plight.</li> </ul>

5.2 Cognition: motivations for side- selling	Lack of understanding	<b>A</b>	He says listen we can do this in the middle of the night, why are you suffering and yet the factory has stolen a lot of money from you. Already it has breached the contract you signed. There is no legal aspect they are going to use because already it is an illegality because already they did not honour part of their promise to you. So why are you helping somebody who wronged you. They did not give you fertilizer, they did not harvest your cane as agreed, they did not pay you as stated in the contract so what the hell are you still trying to supply them.  Yeh, now the same village, the same block leaders you give them 5000 shillings or 1000 or even 2000, so when somebody else calls the factory and asks what is happening with that farm he says let me go there and see. He buys time. He says do it quickly add more cane cutters the factory is questioning. Then he tells them I am not seeing anything.  He did not ask for money from the company and yet the company claims he owes them some money. So like after harvesting, the returns of the sugar cane they cut off the debt, he owes them. That was for the first round, now for the second round he got 59000, so they had to subtract the 2000 from the 59000 but he does not understand where they are taking that cash.
5.3.1 Institutions influence	Active supervisors	<b>A</b>	People who used to come to the farmers, come to them, understanding the problems the farmers were having and the challenges they were going through they could get a solution to the problems. Nowadays they don't. They are not there.
5.3.1 Institutions influence	Block leaders mediate communication with MSC	A	[Mediate communication] Still the factory has maintained people they call delegates, the factory has some field people. Block leaders. Their mandate does not go beyond harvesting and supply of farm inputs. Those block leaders used to inform the supervisors on the ground at the field office that such cane is ready for harvest, such cane is ready for ploughing and is ready for manure application. So we have them but their representation is that minute it does not constitute anything that can help a farmer positive. We do not see positive change because it is an information agent, an informer.
5.3.1. Institutions influence	Former employees involved in side-selling		Mainly the former employees and former contractors of Mumias Sugar. Former contractors that were contracted to take the cane to Mumias Sugar and the former employees who were suspended from MSC.

## Appendix 4 List of company interviewees

This appendix contains a list of company interviewees with quotes to support the analysis in the paper. Page numbers refer to the statement by the respective employee in the body of the paper.

Table 4 List of company interviewees

	List of company intervie Role	Date	Λ	unites
Name			1.	In 121 You can resolve those cases legally was but then we need a
ADM	Agriculture Development Manager	28 June 2016	A A A	[p.12] You can resolve those cases legally yes but then we need a sustainable relationship with the farmer. Our demand for cane is not a one off event it is continuous. These farmers even if you take them to court and auction their property fine that will happen but at the end of the day you need cane. Others will learn from those who made the mistakes that I don't want to let in with Mumias Sugar because in case of a problem they auction my property and do this and do that so to maintain an image and relationship with farmers we don't prefer going the way of business. We prefer going the way of giving them another chance to develop the land again. [p.24] That one is very key and also we have some farmers we call block leaders. These are good farmers within a block. These are farmers who often work on voluntary basis who help us to coordinate activities within a block. We really rely on them for information about who needs harvesting and if there is potential for recruitment and if fortunes have changed and if they have changed negatively what is it that we need to adjust so this can be addressed. [p.24] They also talk about presence of our staff on the ground. Presence of extension staff on the ground. They want more. In terms of staff on the ground, that is how we supervise them so we are not so many on the ground because it is not cost effective. The more people you have on the ground, the lesser you pay the farmer or the more your charge the farmer in terms of hidden costs of extension.  [p.26] Their relationships are very important for the company because if it is good you can access so many farmers at the same time. If one thinks positively that is able to diffuse into all of them. It is good and bad, if they are so close and they think negatively it
AGR	Agronomist	29 June 2016	A A A	[p. 19] Yes in our agriculture management system the AMS, when staff go out there they do an estimate. If I look at the crop my estimated yield is for example 50 tuns per hectare then there is actual yield what you get when you harvest. Sometime you find that the estimate by the staff was lower or it was higher than they actually realized and there would be several reasons for that. Maybe he used a portion to plant another portion or he poached the cane so there is that difference.  [p. 24] It is recently bigger when we had corporate competitors coming in and previously we were a monopoly, but following the construction to the East that is West-Kenya sugar and Butali sugar and more recently Kibos sugar and we have 2 in Busia coming up, constructed already. Unfortunately they construct against no crop development meaning what they target is cane developed by us or the so called private farmers.  [p.23] We have limited funds available to invest in agronomy and new cane varieties.  [p.25] Previously we used to have zoning and there is a mill commander zone for example Mumias. 50000 hectares and it is running along some boundary. Someone else coming in will have to
ASA	Agriculture Service	28 June	<b>&gt;</b>	come to you and then you reach an agreement.  [p. 18] We pay on weight. The price of cane is based on weight and
	Accountant	2016		now the price of cane is 3000 KSH.

			A A A A	[p. 19] Farmers poach the cane that belongs to us and sell it to other millers. What happens is that the farmers, once the cane is harvested and they put them in those heaps some farmers might opt to sell some of that cane to the brokers, the traders.  [p. 20] Contractually we are supposed to pay the farmer within 30 days after harvesting but right now we are doing 60 to 90 days after harvesting the cane.  [p. 21] Yes, they want to avoid paying for the services they receive.  [p. 24] Interviewer: are farmers aware of the exact deductions? Yes, we communicate through these statements. Even before we do the deductions, when we offer the service, at the time of offering we give them an invoice for the service so they sign off against the invoice to acknowledge that they accept before the deductions are
			<b>A</b>	booked into their specific accounts.  [p. 23] <i>Interviewer: what drives side-selling?</i> It is competition
				because MSc developed cane but farmers want quick cash that is now available and don't want to pay for services.
SO	Security Officer	2016	A A A	[p.12] Personally I prefer using the legal system but again there are challenges related to that. For example the company does not want to be seen fighting with farmers.  [pg. 23] Our company strategy worked well when stable, but because of liberalisation people started importing their sugar and competitors came. Before there were laws that forbid other sugar companies within 35 km.  I am expected to control but I don't have the power to ensure it doesn't happen because first of all we are not everywhere we are few numbers.
CSRM	Corporate Social Responsibility	29 June 2016	-	
	Manager			

Note: All company representative gave permission to use their job title.