

CHAPTER THREE

THEORETICAL AND CONCEPTUAL FRAMEWORK FOR CONTRACTUAL RELATIONSHIPS IN AGRICULTURAL SUPPLY CHAINS

3.1 INTRODUCTION

This chapter presents the theoretical and conceptual framework of the contractual relationship between smallholder cane growers and the millers in the sugar industry in Swaziland. This framework serves as a basis for the empirical analysis conducted in Chapter six of this study.

3.2 THE EVOLUTION OF SUPPLY CHAIN MANAGEMENT

The evolution of supply chain management (SCM) has appeared to be one of today's most powerful business strategic concepts. Its development can be traced back to the rise of modern logistics (Ross, 1998). Though supply chain management represents a radically new approach to leveraging the supply chain in search for order of magnitude breakthroughs in products and markets, it is closely connected with logistics and is in many ways a product of the changes that have taken place in logistics. Traditionally, planning, purchasing, manufacturing, distribution, and marketing were operated independently along the supply chain, with each activity having its own set of objectives and often conflicting. Supply chain management has evolved as a strategy to coordinate activities of these independent functions and create a single, integrated plan for the entire organisation (Yogesh, 2000).

Supply chain management is defined as “the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost in the supply chain as a whole” (Christopher, 1998: 15). The concept of supply chain management has developed through four main management phases (Table 3.1). Phase one is referred to as logistics decentralisation; phase two, the total cost management; phase three is integrated functions and phase four is supply chain management.

It is worth noting that in the Swaziland sugar industry, though farmers and the millers still strive to optimise their own individual gains, the Swaziland Sugar Association (SSA) has the vision to optimise gains for the whole supply chain, and attempts to synchronise the operations of the cane growers and millers for the benefit of the whole supply chain.

The innovation of supply chain management is in a way an extension of the firm's boundaries. The original motive of supply chain management was the elimination of barriers between trading partners in order to facilitate synchronisation of information between the partners (Yogesh, 2000). Instead of focusing on a single firm and its performance, emphasis is made over several organisations within the chain, all making an effort to satisfy the end customer.

Table 3.1: Supply chain management stages

To 1960s Stage 1	1970s - 1980s Stage 2	1980s - 1990s Stage 3	1990s-2000 + Stage 4
Warehousing and Transportation	Total Cost Management	Integrated Logistics Management	Supply Chain Management
<u>Management Focus</u> Operations Performance	<u>Management Focus</u> Optimising Operations Cost & Customer Service	<u>Management Focus</u> Tactics/Strategies Logistics Planning	<u>Management Focus</u> Supply Chain Vision, Objectives & Goals
<u>Organisational Design</u> Decentralized Functions	<u>Organisation Design</u> Centralized Functions	<u>Organisation Design</u> Integration of logistic Functions	<u>Organisation Design</u> Partnering, "Virtual" Organization Market Co evolution

Sources: Ross (1998)

3.3 THE SUPPLY CHAIN CONCEPT

A supply chain is a system through which organisations deliver their products and services to their customers. It can be viewed as a network of interlinked organisations or constituencies that have a common purpose and the best possible means of effecting that delivery (Poirier and Reiter, 1996). In a supply chain the network begins with sources that can provide ingredients to start a chain of supply of raw materials, ingredients, commodities and subassemblies; these are called suppliers. The second linkage is the manufacturer, processor or converter who builds, assembles converts or finishes a product or service, identified as the consumable in the network and is called a manufacturer or processor. In this study the supplier refers to the cane growers who supply sugarcane to the mill, while the miller is the processor who purchases and processes sugarcane into sugar and other by-products such as molasses.

Although the term supply chain is relatively modern, the phenomenon has existed for quite a long time. Supply chain has been defined as an integrative philosophy to manage the total flow of a distribution channel from supplier to ultimate customer (Ellram and Cooper, 1993). Steven (1989) defined a supply chain as a connected series of activities that are concerned with planning, coordinating and controlling material, parts, and finished goods from supplier to customer. It is concerned with two distinct flows (material and information) through the organisation. A typical supply chain consists of a number of units beginning with suppliers, who provide raw material to factories or manufacturing plants, which manufacture products and transport them to distribution centres. These in turn transport them to wholesale dealers who then pass them on to retailers. Hence, the end unit in a supply chain is the consumer who buys products from the retailer (Yogesh, 2000). Different industries have different structures of supply chain. Some may have highly structured distribution networks comprising of a central warehouse, regional warehouses and local warehouses through which a product goes before it reaches the retailer and ultimately the consumer.

In this study, supply chain is conceptualised on the basis of Lee and Billington (1993) who defined it as a network (group) of entities (members) formed to solve a common logistics problem. It is about managing coordinated information, material, and financial flows, plant operations, and logistics. The main distinguishing feature of a supply chain from other vertically integrated firms is its organised synchronisation among multiple autonomous

entities represented in it, which indicates an improved coordination within and between various supply chain members and is achieved on the basis of a mutually agreed commitment by supply chain members (Chandra, 1997; Poirier, 1999). Similarly, cane growers, millers and the SSA are entities of the sugar industry supply chain, who have to synchronise the flow of sugarcane from the farmers and the mills' operations as well as the flow of money within the chain.

With the revolution in consumer behaviour, to be successful within an increasingly global agribusiness sector, organisations must be able to meet the desires of the discerning consumer better than their competitors (Hughes, 1994). However, consumer demands are not as simple as perceptions of which product attributes denote quality change according to the beholder's relationship to the final product (Garvin, 1984). Linking specific product attributes to the greater variety of benefits that consumers demand from a given good is a difficult task, especially for individual organisations with limited resources (Boehlje, 1996). Organisations have since realised that they need to "co-operate to compete" if they are to remain competitive (O'Keefe, 1997).

The essence of supply chain organisations is to focus on producing a final product that meets the demands as set by the intended market (Van Dalen, 1997) by combining their resources and close integration between organisations. In addition, as the attributes of a finished product often originate from a particular point in the chain, the effectiveness of the entire supply chain is essential to the acceptance of the final product.

According to Andersson (2001) the concept of supply chain encompasses the following:

- The supply chain identifies the complete operations of providing goods and services to the final user.
- It includes all parties and logistics operations from supplier to customer within a single system.
- The scope of the supply chain includes procurement, production and distribution operations.
- The supply chain extends across organisational boundaries.
- It is coordinated through an information system accessible to all members.

- The primary objective of the supply chain is service to the customer, which must be balanced against costs and assets.
- Objectives of individual supply chain members are achieved through the performance of the chain as a whole.

Leading edge companies have realised that real competition is no longer on company against company but supply chain against another supply chain. This is a result of system boundaries whereby a supply chain can be viewed as a system of companies that form a system of processes and functions. The supply chain can be aggregated to a system of supply chains as they are crossing each other with common links, but the rest is separated.

Due to the differences in consumer tastes and preferences, consumers detect how long the chain should be. Figure 3.1 shows the sugar industry supply chain in Swaziland. This study applies the dyadic type of relationship within the supply chain, where the focus is on the supplier (sugarcane growers) and the processor (millers). The Swaziland Cane Growers Association (SCGA) represents cane growers in the SSA, while the Swaziland Sugar Millers' Association (SSMA) represents millers. At the mill level, both millers and cane growers are represented through a Mill Group Committee (MGC). Cane growers, millers and SSA independently hire transporters, as they need them.

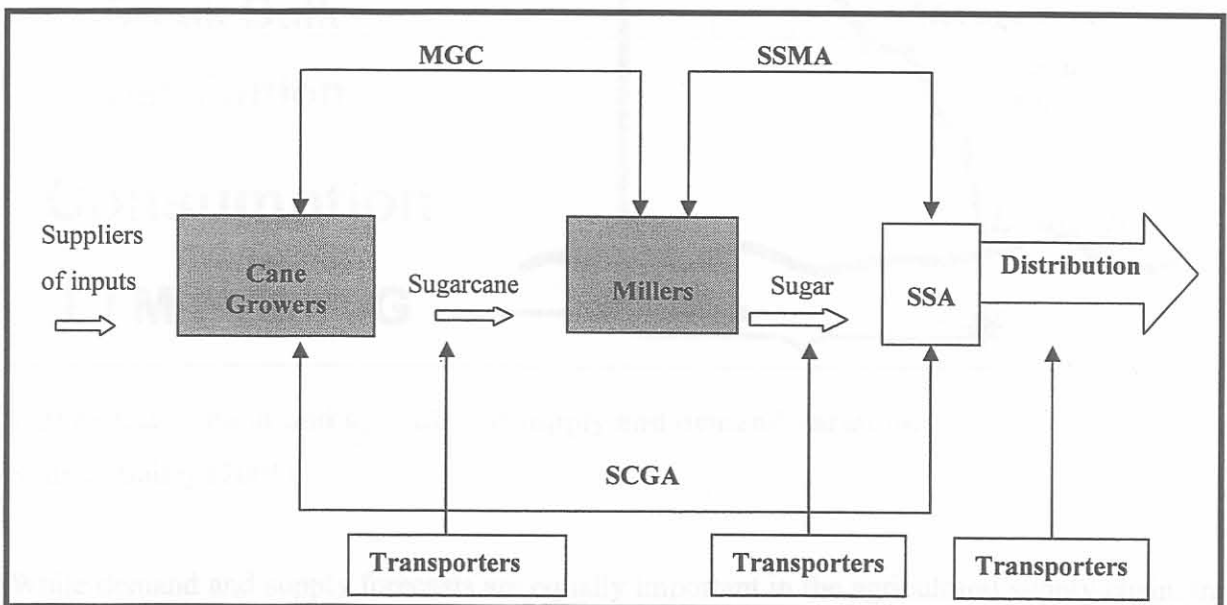


Figure 3.1: The sugar industry supply chain in Swaziland

3.4 AGRICULTURAL SUPPLY CHAINS

Supply chains are most frequently defined as ‘customer driven systems and for such systems production plans are set based on demand forecasts. With such systems, the production process may be adjusted to meet changing customer needs over a specific time frame. The implicit assumption is that supply can be almost perfectly controlled with enough planning and co-ordination with supply chain members. The main difference between the supply chain for food, agricultural products and supply chains for other industries is that agricultural supply chains are both demand and supply driven (Bailey, 2001) (see Figure 3.2).

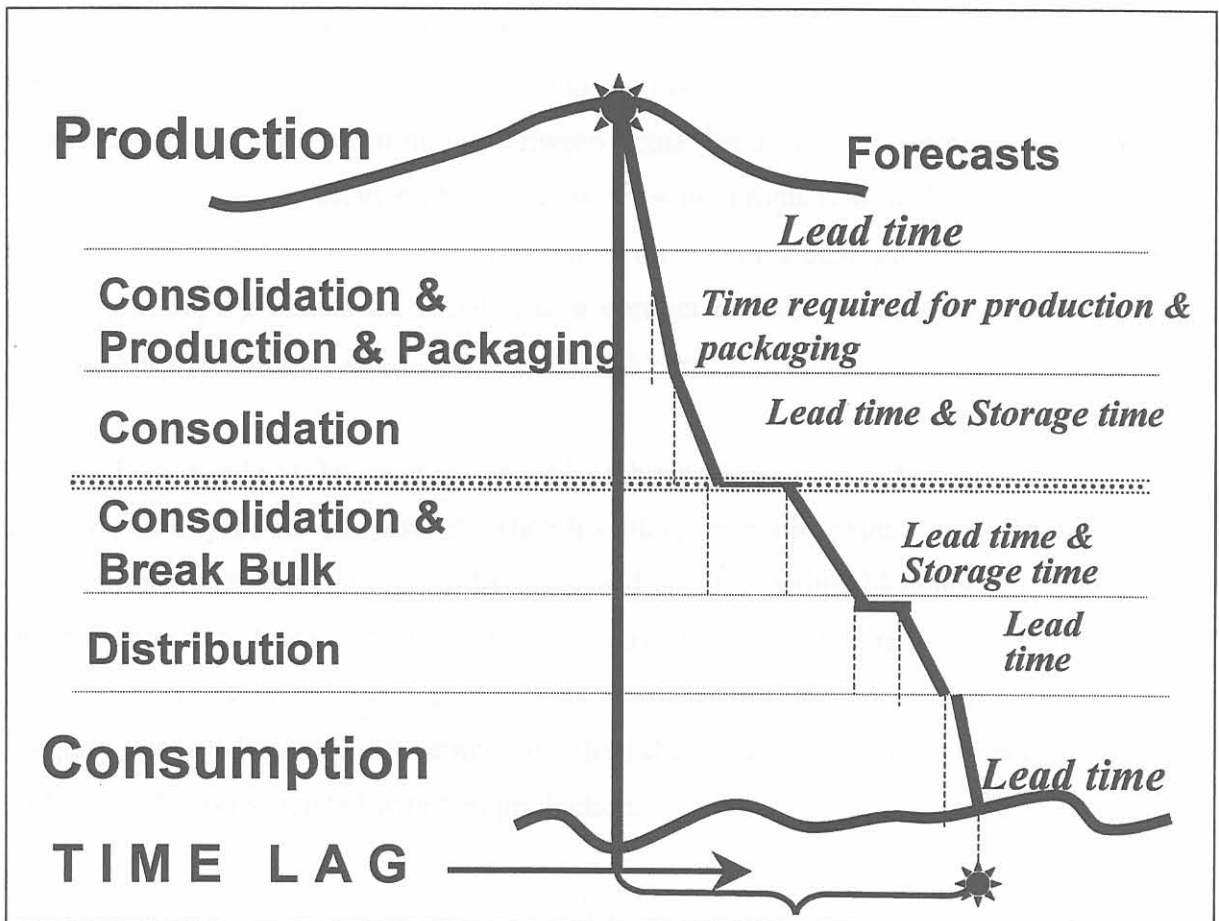


Figure 3.2: Food and agricultural supply and demand variation

Source: Bailey (2001)

While demand and supply forecasts are equally important in the agricultural supply chain, the ability of chain members to control supply is limited. As a result of factors specific to agricultural supply chains it is impossible for these supply chains to be purely customer driven. Seasonal patterns of production and other factors such as weather and diseases are

beyond the ability of either a company or chain members to control. Customers are usually at the far end of the chain and they have very specialised needs to which agricultural production does not and cannot react quickly. Bailey (2001) identifies agricultural supply chains as being production adjusted customer driven systems.

Figure 3.2 shows the variation in supply and demand for agricultural products. The left column represents the flow of material from the producer through to the customer. A horizontal line bisects the figure to indicate the movement of products across a country's borders. The right hand column depicts the interchange between production and demand, also the connection of actual versus forecast production and actual versus forecast customer demand. The variation between actual and forecast production when combined with demand uncertainty emphasise those characteristics unique to agricultural supply chains. These characteristics include: the time lag between actual production and product delivery to the final customer; the importance of storage for seasonal production; and the importance of the dual drivers of production and consumption on an integrated planning system. Hence, agricultural supply chains are faced with a conflict between production driven reality and customer driven reality.

The production side of the sugar industry like other agricultural supply chains is dominated by the perishability of its outputs. Perishability places specific requirements on the products. For example, sugarcane has to be delivered and crushed within 24 hours after harvesting in order to minimize loses in sucrose. Further, agricultural supply chains for different products have their own storage, handling, packaging, and delivery requirements. The characteristics unique to each of these chains emphasise the inherent variability in commodity production and in the chains associated with that production.

3.5 THE CONCEPTUAL MODEL FOR CANE GROWERS AND MILLERS' RELATIONSHIP

From the resource dependency and relational exchange theories, farmers and processors would get into a relational contract because of a need for resources required to achieve specified strategic, technical and operational purposes or benefits. The principle resource exchanged in this relationship is information, which is directed towards accomplishment of

strategic goals (those that relate to product, market and technology direction of the firm) (Nielson, 1994). The value of the information resides in its contribution to solving mutual strategic, operating, and technical problems directed towards achieving the firm's objectives. Therefore, what is central to this relationship is the processing firm's functional group interactions, since functional groups (R&D, production, processing, and marketing) are the main repository of the firm's strategic (ethical, product, and market) information. The functional interactions can be viewed as vertically interrelated variables: (1) intensity of the functional group interactions, (2) their cooperative orientation, and (3) trust. Cooperative in this context refers to inter-firm interaction behaviour characterised by open sharing of information, joint action, flexibility in the face of changing circumstances, an aversion to the use of power to influence the other party, and reluctance to cheat, even when presented with the opportunity to do so. The outcomes for these inter-firm relationships include psycho-social benefits and reduced transaction costs, and hence improved profits for both participants (Nielson, 1994).

The proposed overall framework (Figure 3.3) is based on the assumption that a relational contract (quasi-integration) is a particular form of inter-organisational relationship, which occurs when two or more organisations transact resources (money, physical, facilities, and technical staff services) with one another (Van de Ven, 1976). The relational contract among organisations is patterned after the social action system consisting of three major components: (1) the situational or contextual dimensions, (2) the process or structural dimensions, and (3) the outcome dimensions (Van de Ven, 1976).

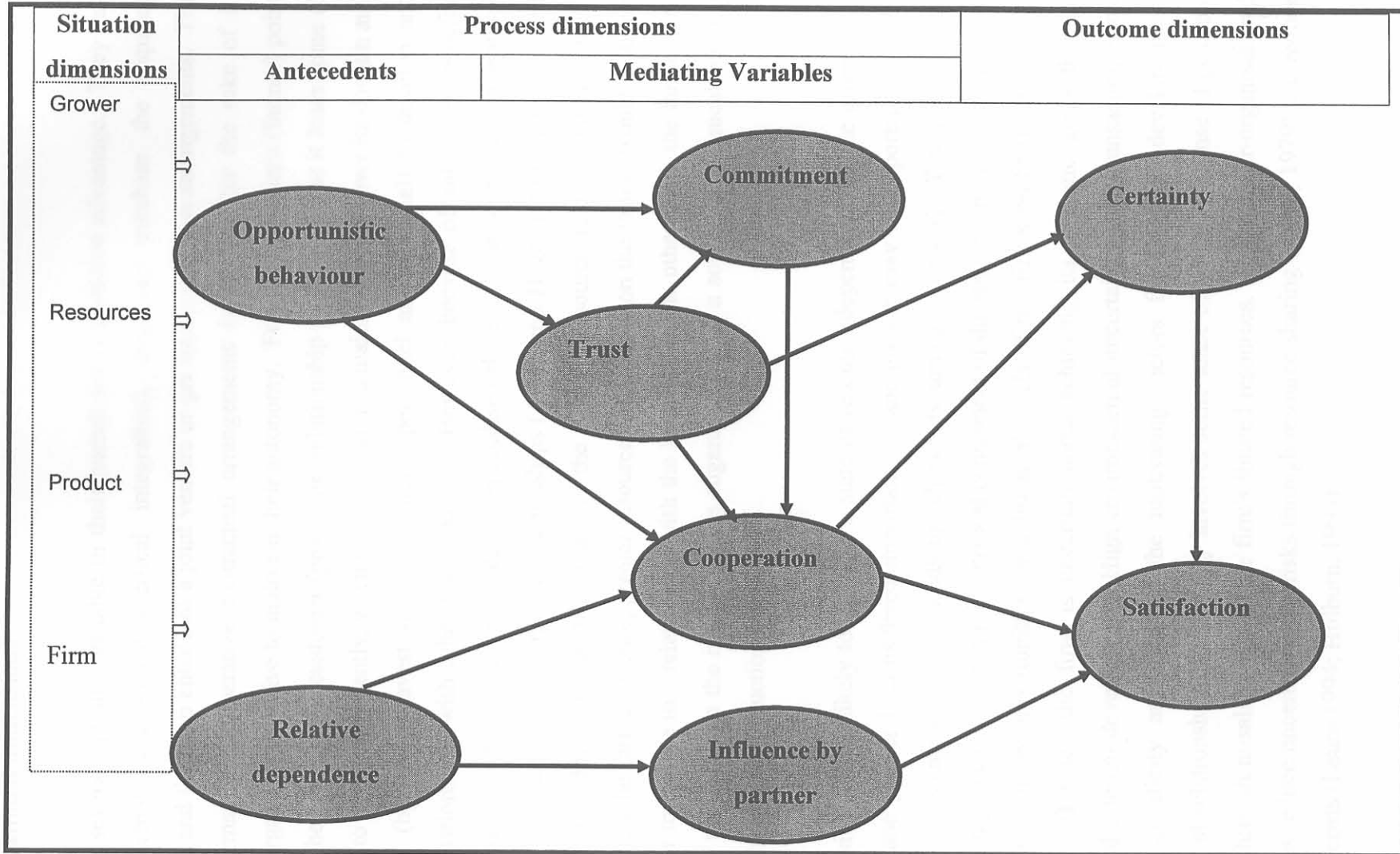


Figure 3.3: A conceptual model of cane growers and millers working under relational contract

Source: Adapted from (Van de Ven, 1976; Morgan and Hunt, 1994; Dwyer *et al*, 1987; Anderson and Narus, 1990)

3.5.1 Situational dimensions

Firms have several options available in their pursuit for competitive advantage. They can employ internal development (vertical integration), they can purchase the required technology, and they can enter into a joint venture or get into contractual arrangements. The entry of firms into cooperative contractual arrangements is not just for the sake of it, otherwise organisations strive to maintain their autonomy. From the supplier's (farmer) point of view, to be involved in customer (processor) relationship implies (a) that it loses some of its freedom to act independently, when it would prefer to maintain control over its domain and affairs, and (b) that it invest scarce resources (personnel and financial) to develop and maintain relationships with other organisations. However, because of anticipated benefits (not only money, but also resources such as specialised skills and satisfaction) organisations are pushed into inter-firm contractual relationships (Aiken and Hage, 1968). Therefore, the main situational dimension in the model is the miller's resource (e.g. labour and land) dependence on the farmer. Hence, greater resource dependence on the farmer would motivate the miller to engage in a relationship with the farmer. On the other hand, the farmer also depends on the miller as the market for his sugarcane and as a source of technical services regarding sugarcane production.

The processing firm is likely to perceive a state of resource dependence on the grower: (1) when the cane grower is considered important; a cane grower may be important if he/she possesses the resources the firm needs to achieve its strategic goals. (2) When the product involved is important, i.e. when it is a critical component of the strategic portfolio of the firm, and or when it offers opportunities for substantial levels of the firm's profit (Frazier *et al.*, 1988), and (3) when the firm is uncertain about achieving its strategic goals through conventional internal development. High environmental uncertainty, high transaction costs, and asset specificity are some of the motivating factors for firms to develop inter-organisational relationships. Uncertainty involves some sense of doubt and sense of possible loss (risk) through misallocation of the firm's limited resources. Hence, inter-organisational relationships reduce uncertainty and risks through resource sharing (Arndt, 1979) and reduce transaction costs (Laura 1994; Hillburn, 1993).

3.5.2 The process dimensions

3.5.2.1 Antecedents of commitment, trust and cooperation

The behavioural component of the contractual arrangement is conceptualised as a process of iterative, dyadic group interactions between supplier and buyer occurring over an extended period of time. These groups are generally represented by the technical and marketing functions since the goals of the relationship involve attaining technical and competitive advantage. These inter-firm interactions are theorised to have both a quantitative and qualitative character (Van de Ven, 1976). The quantitative character is referred to as "intensity" of interactions, which is measured by the frequency of group meetings and number of groups and individuals involved in the relationship specificity and dependence (Frazier *et al.*, 1988). Qualitative character, referred to as "opportunistic orientation" of the relationship, reflects certain specific inter-firm behaviour.

Based on a review of the literature (Anderson and Narus, 1990; Morgan and Hunt, 1994; Neilson, 1994; Dwyer *et al.*, 1987) two antecedents of commitment, trust and cooperation in supplier-buyer relationships have been identified. It is argued that relative dependence and opportunistic behaviour are precursors to commitment, trust and cooperation in the relationship of cane growers and millers.

3.5.2.2 Relative dependence

Firms enter into relational contracting because they need each other's resources. Hence, they are interdependent. When one of the parties is terminated from a relationship, it is assumed that the terminated party will seek alternative relationships and in the process incur "switching costs" which, if too high, will lead to the partner's dependence on the other (Heide and John, 1988). Such costs are exacerbated by relationship specific investment (RSI), also called idiosyncratic investments, which make it difficult to switch to another relationship (Heide and John 1988; Dwyer *et al.*, 1987). Therefore, the partner's anticipation of high switching costs gives rise to his interest in maintaining a quality relationship. However, it may be possible that there would be no switch costs to be incurred after the relationship is dissolved. Therefore, terminal costs are all expected losses from termination and result from the perceived lack of comparable potential alternative partners, relationship dissolution expenses,

substantial switching costs (Morgan and Hunt, 1994) and relationship specific investment costs. These expected termination costs lead to an ongoing relationship being viewed as important, thus generating commitment and cooperation in the relationship. Since many business relationships are faced with uncertainty, the high expected terminal costs produce commitment that leads to cooperation.

A firm's perception of its dependence relative to its partner's dependence on the relationship is an important variable in buyer-seller relationship. It is this "relative dependence" that determines the extent to which a firm will have influence over, and be influenced by, its partner. Relative dependence can be defined as a firm's perceived difference between its own and the partner firm's dependence on the exchange relationship (Anderson and Narus, 1990). The principal result of relative dependence is influence or power. In inter-firm relationships, power can be reflected through the influence of one firm over the other or visa versa (Morgan and Hunt, 1994). Hence, it is argued that there is a positive relationship between relative dependence and influence by partner firm and cooperation. Therefore, a firm with greater relative dependence would be inclined to have an interest in sustaining the relationship and as a result it may be more receptive to changes by its partner. In contrast, a firm with less relative dependence can use its superior position to request changes to its partner that it believes will either mutually increase the outcomes of both or singly increase its own outcomes from the relationship (Morgan and Hunt, 1994).

3.5.2.3 Opportunistic behaviour

The transaction costs literature defines the concept of opportunistic behaviour as "self interest seeking with guile" (Williamson, 1979; Jap and Anderson, 2000). The essence of opportunistic behaviour is deceit-orientated violation of implicit or explicit promises about one's appropriate or required role behaviour. A central premise is that in any exchange either party may be capable of opportunism if the right circumstances arise. In practise, it involves several elements; (a) distortion of information, including overt behaviour such as lying, cheating and stealing, as well as more subtle behaviour such as misrepresenting information by not fully disclosing, and (b) reneging on explicit or implicit commitments such as shirking, or failing to fulfil promises and obligations. It is equivalent to bad faith and the implication is that the party that is opportunistic is not trustworthy. Opportunism figures prominently as a leading cause of relationship decline in the literature on organisational and social relationships

As Dwyer *et al.* (1987) put it, incorporating trust in models of distribution channel relationships provides a unique advantage point for treating opportunism as an explanatory variable. Hence, it is posited that when a farmer or a miller engages in opportunistic behaviour to relationship commitment, the result would be reduced commitment and reduced or absence of trust (Morgan and Hunt, 1994) and low cooperation.

3.5.3 Mediating variables

3.5.3.1 Relationship cooperation

Any relationship is characterised by disagreements or "conflicts", therefore, relational exchanges have no exception (Dwyer *et al.*, 1987). The hostility and bitterness resulting from disagreements not being resolved amicably can lead to relationship dissolution. However, when disputes are resolved amicably, such disagreements are referred to as "functional conflicts," because they prevent stagnation, but stimulate interest and curiosity. The firms will interact with (a) limited use of power and harmonious resolution of conflict (Fraizer *et al.*, 1988), (b) flexibility and the use of "give and take" (Macneil, 1980), (c) the willingness to share valuable, proprietary information and not reveal confidences, and (d) jointly decision making, planning, problem solving, and goal identification (Speckman, 1988). The value of the exchange of information and the resulting strategic outcomes are a function of the extent to which cooperation is established in the relationship.

The cooperative functional interactions are conceptualised as an iterative and evolving process of increasing levels of interaction leading to higher levels of trust and cooperation, which in turn generates relatively high levels of exchange of valuable information. The recognition by a firm's functional participants that the relationship is creating valuable information exchange (leading to realisation of objectives) further increases the level of trust and cooperation. The degree of cooperation is also a function of resource dependence of each partner on the other. Each participant views the other as providing complementary strengths in the form of resources to the relationship (Arndt, 1979). Hence, cooperation is a "key" factor to successful relationships. As a result of cooperation, productivity may increase in an exchange relationship and it can be viewed as "just another way of doing business" (Anderson and Narus, 1990, p.45).

3.5.3.2 Trust

Trust is conceptualised as existing when one party has confidence in an exchange partner's reliability and integrity. Trust in a working relationship and its implications for a firm's actions have been defined as the belief that another partner will perform actions that will result in positive outcomes for the firm as well as not take unexpected actions that would result in negative outcomes for the other partner. The strength of this belief may result in the firm making trusting action, whereby it commits itself to a possible loss, depending upon the actions of the other partner. Trust will still be maintained, however, if the firm believes its partner has taken the expected actions, but forces beyond its control have negated the expected outcomes (Anderson and Narus, 1990). In buyer-seller relationships, it has been found that trust is central to the process of achieving cooperative problem solving and constructive dialogue. It has been established that trust is a key factor in the determination of the buyer's long-term orientation. Ganesan (1994) found that buyers who desired long-term orientation relationships, expected trust as a key factor in the relationship. Parkhe (1998) suggests that trust reduces opportunistic behaviour and can facilitate conflict resolution and cooperation.

In an organisational context it has been found that trust leads to high levels of commitment by the bargaining partners (Schurr and Ozanne, 1985). Hence, trust is theorised as an important factor in relational exchanges. Trust is a determinant of relationship commitment (Achrol, 1991; Anderson and Narus, 1990) and cooperation between cane growers and millers.

3.5.3.3 Relationship commitment

Morgan and Hunt (1994) conceptualised relationship commitment as a belief by one partner in an exchange that an ongoing relationship with another is so important that it warrants maximum effort at maintaining it. That is, the committed party believes that the relationship is worth working on to ensure that it endures indefinitely. Moorman *et al.* (1992) defined relationship commitment as an enduring desire to maintain a valued relationship. Hence, it is central to relational exchanges among firms, and is directly related to cooperation.

Commitment is a common feature of a long-term relationship, which manifests itself not just in the investments adaptations the parties make to each other, but also the perceptions each

has of the other's degree of commitment to the future of the relationship. It has been found to be a key factor of other variables in the buyer-seller relationships (Morgan and Hunt, 1994; Kale and Barnes, 1992). The perceptions of commitment held by each party play an important role in determining the development of the relationship (Ford, 1980). Commitment may be shown by investment of time or money in the relationship or it may also be just a willingness to make changes and work towards mutual goals and benefits. It is therefore expected that commitment would positively enhance cooperation between the cane growers and millers.

3.5.3.4 Influence by partner

Contractual agreement between two organisations reflects frequent power imbalance between parties as the dependence of one partner over the other leads to authoritative controlling behaviour. The behaviour of one partner controlling the other implies that the controlling partner's goals would dominate decisions, would determine which opportunities were to be targeted, and how risks and rewards will be allocated across the relationship (Jarratt and Morrison, 2001). The influence of one partner over the other in a relationship occurs when one partner hierarchically determines and applies rules that will govern interaction between partners. Jarratt and Morrison, (2001) argue that controlling behaviour implied through contractual agreements can be mitigated through the introduction of relational practises such as collaboration, constructive conflict resolution, and restraint from opportunism. Collaborative practises would involve data exchanges, information flows (Mohr *et al.*, 1996) and other measures of relational norms (flexibility and solidarity). Where controlling behaviour exists, there is likelihood that the controlled partner would perceive an inequitable distribution of relationship outcomes, which negatively influence the perception of the relationship. Hence, control by a partner may be negatively related to the influenced partner's satisfaction.

3.4.4 Outcome dimensions

The outcome dimensions of a relational exchange can be categorised as either "strategic" (product, market, or technological) or "psycho-social" (Nielson, 1994). The main strategic benefit to the farmer is the actualisation of the strategic aims or goals (market and money), which motivated the relationship. This may include improved quality and performance,

reduced production costs, or an improved logistic system resulting in the benefits associated with Just in Time (JIT) concept, while the psycho-social benefits may be reduced uncertainty, and expectation of continuity of the relationship (satisfaction). However, the principal functional cost is the development of "switching costs", investments in plant or other long-term capital, procedures, and personnel, which tend to be irreversible and transaction specific (Williamson, 1979).

3.5.4.1 Certainty

Certainty in decision making refers to the extent to which a partner (1) has enough information to make key decisions, (2) can predict the consequences of those decisions, and (3) has confidence in those decisions (Achrol and Stern, 1988). Walker and Weber (1987) define uncertainty as the inability to predict changes in relevant factors surrounding the exchange between a buyer and a seller. They argue that environmental uncertainty increases different expectations and goals about future supply requirements. Consequently, the buyer and the seller would likely desire a different contract term. For instance, if a farmer is unable to accurately forecast the price of his product inputs, he will be reluctant to enter into a contract that will lock him into a fixed price for an extended period of time. Instead, he would prefer negotiation of the agreements that address this price uncertainty and allow for periodic price adjustments. Similarly, the inability of the miller to predict the demand of his end products (sugar) makes him hesitant to commit to purchase a specified quantity of sugarcane. Therefore, the presence of uncertainty would make it difficult for the miller and the farmer to negotiate their contract. It is therefore expected that trust and cooperation reduce decision making uncertainty but promotes certainty, and certainty in turn increases their relationship satisfaction.

3.5.4.2 Satisfaction

Satisfaction has been defined as a positive affective state resulting from the appraisal of all aspects of a firm's working relationship with another firm (Anderson and Narus, 1990). Satisfaction is a focal consequence of working partnerships in this model. It is worth noting that satisfaction may not necessarily be an indicator of effectiveness, but it may be a predictor of future actions by partners as well as continued long-term relationships. Supply chain models have been utilised to measure the performance of a supply chain. Most supply chain

models have used costs and a combination of costs and customer responsiveness to measure performance. Cost measures include inventory costs and operating costs, while customer responsiveness measures include lead-time, stockout probability, and fill rate (Beamon, 1999). Beamon argues that other performance measures have been identified as appropriate for supply chain analysis, such as satisfaction, information flow, supplier performance and risk management. Hence, satisfaction is used in this model as a proxy for performance. The presence of uncertainty, power imbalance that may result in influence by a partner and cooperation in a supply chain is expected to impact the supply chain performance. It is posited that cane growers' relationship with millers is positively related to perceived cooperation and certainty but negatively related to the cane growers' influence by millers.

3.4 SUMMARY

Contractual relationships that link actors together like in the supply chain comprise of stream of transactions and these transactions may be differentiated according to their type and structure. They consist of exchange processes, which are limited to economic transactions. Broadly, they consist of all mutual advantages that form the basis of exchange. Therefore, contractual relationships involve the transfer of goods, services, diffusion of information and knowledge, development of trust and friendship and the flow of legitimacy (Thorelli, 1986).

This chapter introduce the conceptual framework for analysing contractual relationships between smallholder cane growers and millers in the sugar industry supply chain. A model of the cane growers' relationship with millers has been proposed, which is subsequently estimated to indicate the relationships in the industry. The subsequent chapter will involve specification of the method and analytical procedures followed in this study.