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Title: Suppliers' Perception of Buyer Opportunism: Some Antecedents and Contingent Effect in Buyer-Seller Relationships.

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DEDICATION

This work is dedicated to the memory of my father Peter Kumah Amanyo

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LIST OF ABBREVIATIONS

COCOBOD	Ghana Cocoa Board
CMC	Cocoa Marketing Company
CRIG	Cocoa Research Institute of Ghana
CSSVDCU	Cocoa Swollen Shoot Virus Disease Control Unit
CTOR	Cocoa Take-Over Receipt
FOB	Free on Board
ERP	Economic Recovering Program
GCCMB	Gold Coast Cocoa Marketing Board
GCMB	Ghana Cocoa Marketing Board
GCCSFA	Ghana Cocoa, Coffee and Shea-nut Farmers Association
ICCO	International Cocoa Organization
LBC	License Buying Company
PBC	Produce Buying Company
PC	Purchasing Clerks
PNDC	Provisional National Defense Council
PPRC	Producer Price Review Committee
QCD	Quality Control Division
R & D	Research and Development
SAP	Structural Adjustment Programs
SPU	Seed Production Unit
WACCB	West African Cocoa Control Board

ABSTRACT

Purpose – The purpose of this study is to make a contribution to the literature on buyer seller relationships by looking at the relationship between smallholder cocoa growers (suppliers) and the License buying companies (buyers). The study reports on the factors that influence perceived buyer opportunism such as: relationship duration, buyer control, supplier satisfaction, trust, the relative power of the buyer over the supplier and transaction-specific supplier development efforts undertaken by the buyer in the supplier.

Design/method/approach – Literature on transaction cost theory and relational contracting theory are reviewed. This leads to the formulation of the research model and the hypotheses in order to test the proposed association between buyer opportunism and buyer control; supplier satisfaction; transaction-specific supplier development and the interaction between relationship duration and supplier satisfaction. Data from a survey of seventy three (73) small holder cocoa farmers of Ghana was used.

Findings – The empirical findings shows that buyer control has a significant positive association with buyer opportunism. Supplier satisfaction and transaction-specific supplier development have a significant negative association with buyer opportunism. The findings also indicate that under conditions of high supplier satisfaction, there is a stronger negative association between relationship duration and buyer opportunism than under conditions of low/moderate supplier satisfaction.

Limitation of the study – A major limitation of the study has to do with the sample size. The sample size of seventy three (73) does not meet the recommended sample size. Secondly, the study involved the analysis of one industry and hence findings cannot be generalized even though the study makes interesting findings regarding the contingent effect of supplier satisfaction on the association between relationship duration and buyer opportunism.

Managerial implication –Buyer opportunism is a very important issue that should be taken note of in business relationships. This is because perceive buyer opportunism reduces trust and supplier satisfaction. In order for management to overcome this issue they need to identify the key factors that influence buyer opportunism and put in place measures for the monitoring of agents who represents these buying firms in order to ensure a satisfactory buyer-supplier relationships. In conclusion, for long-term business relationships to be perceived by either party as less opportunistic there is the need for both parties to ensure satisfactory relationship outcomes for mutual benefit.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Buyer seller relationships have been in existence since man started trading in goods and services and has developed over time based on trust, friendship and quality goods and services (Wilson, 1995). The production of cocoa for export involves relationships between cocoa growers and buying agents representing Licensed Buying Companies (LBCs) which are firms authorized under the laws of Ghana to partake in the internal purchase and marketing of cocoa within the Ghanaian economy. Thus the relationship between buying firms and the cocoa growers is a typical buyer-seller relationship as it involves interactions between two parties over a period of time.

However, there seems to be growing dissatisfaction in the relationship existing between suppliers of this all important crop and buying firms due to perceived buyer opportunism. Recent reports of resentment by farmers give credence to this perception (Business and Financial Times, 2012b; Opoku, 2011). It is therefore the aim of this study to find out the key factors that influence buyer opportunism and also to elucidate on the key issues that can be taken into consideration for policy and management practice especially within the cocoa sector of Ghana. The second purpose is to contribute to theory as most studies on opportunism has been done from the perspective of buyers. This study takes a different approach by integrating transaction cost and relational contract theory and using the relationship between a buyer and supplier as the unit of analysis.

1.2 Background of the Study

From 1947 until 1993 the state was the only buyer of cocoa through the Ghana Cocoa Board (known as COCOBOD). As part of the World Bank Structural Adjustment Programs (SAPs) the sector was liberalized and farmers could now sell to 25 private licensed buying companies (LBC's) or to the Produced Buying Company (PBC) a former subsidiary of the Ghana Cocoa Board (COCOBOD). Farmers make the choice of which

LBCs to sell to depending on prompt payment and the degree of trust that the farmer has in the LBCs agent so they try to avoid the less trustworthy ones (Vigneri and Santos, 2007). The granting of loan, input on credit and the subsidizing of input also play an important role in the choice of which buyer to sell to.

Recent reports of resentment by farmers through perceived opportunism in the form of cheating by the purchasing agents has been a major source of dissatisfaction and worry. It was reported on Dec.29, 2011 in the Daily Guide newspaper that a section of the cocoa farmers in the Jomoro District of the Western Region were angry due to the perceived cheating in weighing of cocoa by purchasing clerks. The angry cocoa farmers claim they notice the disparity in the weights after they have weighed their beans from the house. This they believe is done through the manipulation of the scales by the clerks. They threaten to smuggle their product to Ivory Coast if the practice is not curtailed (Opoku, 2011). Findings from a survey involving 14 communities within the Ashanti, western and central regions of Ghana shows that the deliberate adjustment of weighing scale to favor the buyers was widespread in these communities (Business and Financial Times, 2012b). In a related report it was reported that the industry regulatory the Ghana Cocoa Board (COCOBOD) threatens to sanction LBCs found guilty of adjusting their weighing scale in order to cheat farmers (Business and Financial Times, 2012b).This tells the scale of this practice and how wide spread it is.

Buyer control in terms of quality control is exercised by the industry regulator called Ghana Cocoa Board (COCOBOD) through the various Licensed Buying Companies (LBCs) that are authorized to be involved in the internal marketing and purchasing of cocoa from the farmers. In a recent report titled "Performance Evaluation of Licensed Buying Companies - 2010/11 Main Crop Season", COCOBOD, revoked the license of four buying companies. Under the internal marketing of cocoa regulations in Ghana, LBCs are required to purchase a minimum of 2,000 tons of cocoa; failure by an LBC to meet the requirement after three seasons mandates the industry regulator, Ghana Cocoa Board (COCOBOD) to withdraw its license (Business and Financial Times, 2012a). The inability of these LBCs to meet this requirement may be due to the fact that the cocoa growers in their vicinity are dissatisfied with them thus their refusal to sell to them.

1.3 Research problem

This work is concerned with the study of buyer opportunism which is characterized by behaviors as lying, insincerity and the undervaluation of products by buying companies in the purchase of cocoa in Ghana. These behaviors are a reflection of opportunistic behavior as noted by (John, 1984; Williamson, 1985). Some examples of opportunistic behavior documented includes such behaviors as withholding or distorting information, lies, stealing, cheating, calculated efforts to mislead, disguise, confuse, and shirking or failing to fulfill promises or obligations (John, 1984; Williamson, 1985). Thus the study seeks to find reasons that lead to the exercise of such behavior by buying firms and the effect of their actions on the buyer supplier relationship. Shueh-Chin Ting et al (2007) noted that due to bounded rationality the display of opportunistic behavior is present in exchange relationships as partners seek their own interest thus opportunism is seen as an aspect of human behavior.

However opportunism in business to business relationships is said to be shaped by the partner's perception, it can be either real or perceived (Rindfleisch et al, 2010). Previous studies have shown the negative effect of opportunism on relational exchange norms such as trust, cooperation and on satisfaction (Batt, 2003; Joshi and Stump 1999; Morgan and Hunt, 1994; Sabel, 1993). Also the tendency for buyers to behave opportunistically is expected to reduce when relationship duration increases so why would buyers behave opportunistically when it is detrimental to the relationship? Thus, in view of the issues discussed this present study is undertaken to seek answers to the question:

- What key factors influence buyer opportunism as perceived by suppliers?
- Under what condition does supplier's prior relationship with an exchange partner reduces buyer opportunism?

1.4 Justification of the study

The purpose of this study is to investigate the perceived opportunism exhibited by buyers of cocoa. The study seeks to identify the key influencing factors of perceived buyer opportunism from the perspective of suppliers of cocoa in the buyer seller relationship. We rely on Transaction Cost Theory and Relational Contracting Theory as the main theoretical frameworks to help find answers to our research question in the study of this phenomenon.

Since it has been noted that research that investigate opportunism basically relies on transaction cost analysis and/or relational exchange theory (Lai et al. 2005; cited in Hawkins, 2007). We seek to integrate transaction cost and relational contract theory to better help explain the phenomenon understudy.

The key dimensions of transaction cost integrated with the relational propositions of relational contract theory make it a preferred theoretical framework for the study of business relationships. It is therefore appropriate to use transaction cost analysis and relational contracting theory as a theoretical framework due to the fact that the relationship between buying firms and the cocoa growers is a typical buyer seller relationship involving transactions over time. Rindfleisch and Heide, (1997) summarized a series of studies involving the use of transaction cost analysis in sales persons opportunism (Andersen, 1988); franchisee opportunism (John, 1984) and Parkhe (1993) on perception of opportunistic behavior. Wathne and Heide (2000) also gave examples of Industry cases involving opportunism (Dutta et al 1994; Klein 1996; Kelly and Kerwin, 1992; Murry and Heide 1998; Walton 1997). However there is the lack of empirical research on buyer opportunism. This study would contribute to the extant literature through the formulation and testing of the various hypotheses based on the empirical setting of the cocoa supply chain of Ghana. In this study the research questions would seek answers from the perspective of the suppliers, since previous research had looked at supplier opportunism from the buyer's perspective. It would therefore be interesting to research into this perspective in the buyer seller relationship.

Secondly, another important justification for the conduct of this study is the use of the findings emanating from it for management practice and public policy formulation and implementation. For example management control systems can be implemented by management of buying firms to help in controlling the behavior of buying agents; information systems can be implemented to collect timely information about transactions between suppliers and buying agents; reputation management by buying firms to better appeal to cocoa farmers and structural changes in terms of policy formulation by government to help create more enabling socio-political environment for the conduct of business within the cocoa sector of the economy.

1.5 Scope of the study

This study covers cocoa growers who are suppliers within the Oda Township, a cocoa growing district of the Eastern region of Ghana. Irrespective of this, the study employs other evidence outside the study area in order to find factors explaining the phenomena since the situation persist in other parts of the country. The study is also limited to a particular buyer-supplier relationship. Hence suppliers give their perception of the relationship they have with a particular buying firm over a time period. Thus a dyadic relationship approach is used instead of a network approach, with data collected from one side of the dyad, specifically from supplier side of the buyer-supplier relationship under study.

1.6 Organization of the study

The study is organized into eight chapters. Chapter one covers the introduction and includes the background of the study, the research problem, the justification of the study, scope of the study and the organization of the study. Chapter two gives the theoretical background for the study. Chapter three gives an overview of the cocoa industry in Ghana. Chapter four consists of the research model and hypotheses. In chapter five the research methodology employed in the study is outlined. The measurement of the variables and data validation is dealt with in Chapter six whiles Chapter seven deals with the empirical findings and data analysis. In chapter eight the final chapter, a summary, discussion, implication, the limitations of the study and future research are dealt with.

1.7 Summary

In this chapter the background to the study is provided. This is followed by the research problem, the justification of the study, the scope of the study, and an outline of the study. In the next chapter, the relevant literature on Transaction Cost Analysis; the behavioral assumptions and the dimensions of Transaction Cost Analysis are outlined (Williamson, 1975; 1985) and Relational Contracting Theory are reviewed.

CHAPTER 2
THEORETICAL PERSPECTIVES

2.1 Introduction

In the preceding chapter the background of the study was presented, the research problem, the justification of the study and the scope of the study were discussed. In this chapter, the relevant literature on Transaction Cost Analysis (Williamson, 1975; 1985) and Relational Contracting Theory are reviewed. The behavioral assumptions of Transaction Cost Analysis and its dimensions are also discussed.

2.2 Transaction Cost Theory

Transaction Cost Analysis (TCA) has served as the theoretical foundation on which many studies in B2B have been based on over the years (Geysken et al, 2006). Transaction Cost was introduced by Roland Coarse in 1937; this was further developed by Williamson (1975, 1985). It gives explanation to how transactions are organized (Coarse 1937; Williamson 1975, 1985). Williamson (1975) in Berthon et al (2003) referred to Transaction cost economics (TCE) or Transaction cost analysis (TCA) as the way of organizing economic activity "within and between markets and hierarchies." Transaction cost is concerned with how transactions are managed in order to reduce the total cost of production and transaction (Shueh-Chin Ting et al, 2007). Transaction cost refers to the cost that are incurred in the establishment of agreements, monitoring exchange partners performance so as to ensure that they adhere to contractual clauses (Joshi and Stump, 1999). Transaction cost is ether in the form of direct costs or the opportunity cost of foregone transaction and it includes ex ante cost such as the cost incurred in drafting or negotiating a contract as well as ex post cost being cost of monitoring and enforcing agreements (Rindfleisch & Heide, 1997; Williamson 1985).

Transaction Cost theory is said to rely on the concept of opportunism and

governance as the main foundation (Rindfleisch et al, 2010). In transaction cost analysis market governance is seen as the most suitable governance mechanism for solving the problem of adaptation and performance ambiguities. According to Rindfleisch et al (2010), many scholars have recognized that uncertainty and the investment of specific assets are the main characteristics that influence transaction cost (Andersen, 1985; Heide and John, 1990; Williamson 1985). For this reason the principle of adaptation is used in TCA in order to forge harmonious relationship between buyers and sellers.

TCA suggest that monitoring acts as check or control mechanism which should lead to the reduction in opportunistic behavior by partners (Alchan and Demsetz, 1992) however, other studies suggest the opposite for example in Barkema (1995), Deci et al (1999) and John (1984) findings on the way monitoring affects behavior outcome suggests that monitoring not only control opportunism but also promotes it due to its reaction effect (Heide, Wathne and Rokkan, 2007).

2.2.1 Behavioral Assumptions

TCA employs behavioral assumptions which refer to human factors that are exposed when undertaking economic activities. These assumptions are: *bounded rationality, opportunism* and *risk neutrality.*

Bounded rationality refers to human behavior of economic actors that are "intended rational but only limited" (Simon, 1961; Williamson, 1985). Due to uncertainty/complexity in the business environment in which business takes place there is a problem of bounded rationality. This problem has to do with the fact that it is difficult to know beforehand (ex-ante) problems that shall be encountered should a contract/deal be signed (Rindfleisch and Heide, 1997).

Bounded rationality is based on the fact that decision makers are constrained due to the lack of complete information. They try to be rational but this is limited by the lack of information processing and the ability to communicate. This limitation renders their efforts to be incomplete and their action not in accordance with their goals, and thereby makes their efforts to be less rational although they did not intend it be so (Simon, 1957 cited in Rindfleisch and Heide, 1997).

Opportunism Williamson (1975; p.6) defines opportunism as ''self-seeking with

guile''. This implies that people tries to seek their own interest. This was the original definition according to Wathne and Heide (2000) who gave examples of opportunistic behavior as the falsification of expense reports; the breach of distribution contracts; bait and stitch tactics; quality shirking and violation of promotion agreements. Opportunism presents costly implications since it leads to the use of non-productive additional expenses for control mechanism and monitoring. It also leads to opportunity cost in the form of deals which are foregone (Wathne and Heide, 2000).

In TCA, self-interest is considered as opportunism and this has been the domain of research by Rokkan and Buvik (2003) and Heide and John (1990) among others who studied free riding behavior in voluntary chains and marketing research respectively. As a construct opportunism has been used in different ways but it has been measured by only a few. It is seen as a fixed or exogenous condition based on TCA views. Andersen (1988) and John (1984) see it as an endogenous variable which needs to be explained (Wathne and Heide, 2000).

The forms of opportunism identified are blatant or strong form. This involves the deliberate misrepresentation during the initiation of a relationship (ex ante), or the violation over the course of the relationship that is ex post (Wathne and Heide, 2000). Opportunistic behavior is categorized into two general categories as active or passive by Wathne and Heidi, (2000). Passive opportunism is opportunism due to the problem of adverse selection. Here a party in an exchange relationship withholds critical information. Also Moral hazard problems such as the shirking or evasion of obligation in an exchange relation give rise to passive opportunism. On the other hand active opportunism is manifested when a party intentionally or deliberately lies or misrepresents material facts. It is also the commitment of a forbidden act or involves the actively breaching of a forbidden act. An example is the violation of a contract stipulations or the failure by a party to honor a contract (Wathne and Heide, 2000).

Opportunism can occur under any situation but it has been noted to be facilitated by conditions of vulnerability such an information asymmetry problem due to a partner's attributes or action or by lock-in conditions which represents vulnerability because the party cannot exist the relationship without incurring some economic lost. Due to this reason the party can only endure it by tolerating the opportunism (Wathne and Heide, 2000). According to John (1984) the potential to behave opportunistically in a long term

relationship is likely due to the fact that it cannot be easily terminated or done cheaply.

Barney and Ouchi (1988) cited in Berthon et al (2003) also identified three types of opportunism: *adverse selection*; *moral hazards* and *hold up*.

- *Adverse selection* - With respect to pre contractual opportunism. This is as a result of an ex ante opportunism problem and this occurs when there is information asymmetry about partner's performance in the future.
- *Moral hazards* - With respect to post contractual opportunism. This is an information asymmetry problem due to the fact that parties in an exchange relationship may not know the current performance capabilities of their partners.
- *Hold up* - This situation is due to investment in specific asset whose value is of specific importance to an exchange relation. This investment leads to the likelihood of exercising opportunism.

In a previous research Joshi and Stump (1996) found opportunism to be detrimental to the quality of an exchange relationship for example in functional conflict. Opportunism has also been found to have a negative effect on satisfaction (Gassenheimer et al, 1996) and undermines the continuation of relationship (Bucklin and Senugupta 1993; Parkhe 1993). In Cronso and Dahlstrom (2010) study, opportunism was found to reduce satisfaction within the fast food industry.

Risk Neutrality has not received much attention although it was included by Williamson (Williamson 1975; 1985) in (Rindfleisch and Heide, 1997).

2.2.2 Dimensions of a transaction

In transaction cost analysis, the individual transaction is the unit of analysis and the basic elements identified are the three dimensions of a transaction; *asset specificity*, *uncertainty* and the *frequency of exchange* (Williamson, 1985).

Asset Specificity means the degree to which a transaction needs or depends on transaction-specific assets (Douma and Schreuder, 2008). The deployment of specific assets is associated with the intention of future business (Heide and John, 1990; Tirole, 1989). Specific asset leads to the problem of safeguarding. Specific assets create bilateral dependence, high switching cost and the need for coordination between firms and the need

for the safeguarding assets at risk (Buvik and Reve, 2002). According to Williamson (1975), when there is substantial specific asset, the terms of trade between the parties would change from a conventional market situation into small number conditions thus evoking a change from market transaction to bilateral governance.

According to Williamson (1985, 1991) and Lohtia et al (1994) six types of asset specificity are categorized as follows:

1. *Site specificity* – This is characterized by transaction-specific investment with respect to specific sites such that investments done are immovable and expensive in terms of transfer cost. For example, investment in ports infrastructure and factory buildings. Investment in farm lands with respect to physical land preparations; buildings and the crops which cannot be moved to another location easily once they have been deplored.

2. *Physical asset specificity* – The key feature of this type of investment involves investment tailored for a specific product. For example the engineering and manufacturing of machines for a particular product line. Investments in farm equipment and machinery.

3. *Human assets specificity* – Investments made in human resource development such as acquisition of specific training, skills, capability and knowledge. Training of cocoa farmers in special agronomic practices with respect to cocoa cultivation.

4. *Brand name capital* – Investment made in development of brands such that customers have confidence and expectation of high service level or quality consideration. For example Coca-Cola, Starbucks etc. The "Ghanaian cocoa", that is cocoa produced from Ghana has a premium value worldwide due to several years of investments in quality considerations.

5. *Dedicated assets* – These are investments tailored specifically towards meeting the needs of a particular customer. For example buying companies in the cocoa growing areas of Ghana are involved in the transaction-specific supplier development initiatives such as the granting of "soft loans" working capital; farm inputs such as fertilizers, insecticides and improved seeds.

6. *Temporary specificity investments* – These are time restricted investment made to cater for a particular need. For example the construction of bole holes for harvesting water from underground water resources pending the construction of water treatment plant/system. Temporal grants of cash by buying firms to cocoa growers during harvesting periods.

Uncertainty was described by Williamson (1975) as the inability of parties to predict unforeseen occurrences in advance. Williamson (1985) categorized uncertainty into *Environmental uncertainty* and *Behavior uncertainty*, referring to opportunism due to strategic uncertainty as behavioral uncertainty and non-strategic uncertainty to environmental uncertainty.

Environmental uncertainty is referred to as "unanticipated changes in circumstances surrounding an exchange". Noordewier, et al. (1990; p.82) cited in Rindfleisch and Heide (1997). Environmental uncertainty is viewed to be unpredictable as well as complex. Environmental uncertainty leads to the problem of ex- ante adaptation due to the fact that it is difficult to put in place contingency plans for changing situations in the external environment before they occur (Rindfleisch and Heide, 1997). In order to overcome this problem parties in an exchange relationship may have to write contract which specifies all future uncertainties (Williamson, 1991). This problem is also linked to the problem of bounded rationality.

Behavioral uncertainty involves the problem encountered in monitoring exchange partners performance, leading to ex post performance evaluation problems due to opportunism and bounded rationality (Rindfleisch and Heide, 1997). Due to this it is not easy to know ex ante if you will be a victim of opportunistic behavior from another party in a business relationship. Behavior uncertainty poses a problem only when environmental uncertainty leads to problem of adaptation (Williamson, 1985). An increase in behavioral uncertainty would lead to an increase in cost of evaluating the performance of an exchange partner (Rindfleisch and Heide, 1997).

Similar to behavioral uncertainty is the concept of information asymmetry in agency theory which deals with the problem of Moral hazard; an ex post information problem due to private information (Douma and Schreuder 2008). Information asymmetry problem leads agents to behave opportunistically. In agency theory agent opportunism is a

key element. An agency relation is said to exist "whenever one part (the principal) depends on another (the agent) to undertake some action on the principal's behalf" (Bergen et al, 1992). Thus the relationship between the purchasing agents who represents the various buying firms in the cocoa growing communities of Ghana and the buying firms (usually referred to as Licensed Buying Companies) can be referred to as an agency relationship.

Frequency of exchange is the third dimension of a transaction that was considered by Williamson (1975; 1985). This refers to the annual orders or the amount of trade involved in the transactions. This dimension has not received much attention since only a few studies have delved into it and those which did where unable to confirm the hypothesized effect according to Rindfleisch and Heide (1997).

2.3 Relational Contracting Theory

Relational Contracting Theory (RCT) was introduced by Macaulay (1963) and later Macneil (1978; 1980). The theory posits that the prior history of a relationship is expected to lead to certain norms; trust and personal relationship that would affect the way the relationship between a manufacturer and a supplier are organized (Buvik and Reve, 2002; Macneil, 1978, 1980). Relational Contracting also predicts that as the relation develops relational norms will emerge and this would provide for the safeguarding of the relationship (Brachach and Eccles, 1989; Buvik and Halskau, 2001; Granovetter, 1985). It is expected that relational norms would act as a safeguarding mechanism against the exercise of opportunistic behavior.

These norms come into being as a result of extensive collaboration between the actors involved in purchasing and have gone through a lot of stages (Buvik and Burki, 2010; Heide, 1994). It is expected that as the relation evolves certain values and norms are developed which would serve as a guideline for ongoing exchanges dictating inter-firm exchanges and the contracting practices. This implies that the relational contract is expected to be adjusted as time goes on and at any time it would depend on the current status of the relationship and the history of the relationship (Buvik and Halskau, 2001). Due to this the governance form would be different from what was in place at the beginning of the relationship.

For example, it is expected that the relationship between a cocoa grower (supplier) and the purchasing agent (buyer), both of whom have interacted cordially over a period of

time such that there have been tranquility in relationship outcomes over that period and the present cordial status would have developed some normative behavior such as relationship satisfaction, normative expectations and trustworthiness. Such relationships are therefore expected to be governed by relational norms without explicit written agreement and by the partners in the exchange relationship being able to accommodate each other without reference to some laid down rules. Such relationships are characterized by friendships, personal relationships and the granting of favors to each other without recourse or the fear that one party will take advantage of the other and behave opportunistically.

2.3.1 Relationship duration, relational norms and trust

Relational duration has been recognized to be important in the marketing literature (e.g. Ring and Van de Ven, 1994). It has been noted to be the main element in relational exchange theory and is strongly related to relational governance (Lee et al., 2004 in Buvik and Burki, 2010). It has been noted to be important in accessing the form of governance structure that should be in place and also lead to relational norms (Heidi and John, 1990; Macneil, 1980).

The history of a relationship brings about norms such as trust and a satisfactory buyer-seller relationship. Trust is also regarded by the theory as a necessary factor in relationship building (Macneil, 1980). Trust is relevant when there is risk of mutual dependence as relational trust is derived from repeated interactions over time. Norms as a governance structure is developed in buyer-seller relationships as a result of trust between contracting parties who have dealt with each other over a period of time (Rousseau et al, 1998). Trust has also been found to reduce uncertainty and the threat of opportunism (Heide and John, 1990; Wathne and Heide, 2004).

It is expected that relationships between cocoa growers and buying firms that have prior interactions with each party, and are satisfactory and cordial are likely to be characterized by trust. Such trustworthy relationships are likely to have been developed based on prior experience as a result of the history of the relationship.

2.3.2 Relationship duration, relational norms and opportunism

Relational contracting theory predicts that as relationships evolve over time relational norms are established (Bradach and Eccles, 1989; Granovetter, 1985; Macneil, 1980). Relational norms will act as a reference on allowed behavior limits and also act as a check against opportunistic behavior (Bradach and Eccles, 1989; Ouchi, 1979;

Stinchcombe, 1987). Bradach and Eccles (1989; p.108) noted that when economic transactions are embedded in personal relationships the hazards of opportunism are diminished and the need for elaborate formal governance is rendered unnecessary.

Ex post transaction cost incurred through minimizing conflict, control and monitoring efforts for dealing with opportunism are decreased as the threat of opportunism is diminished due to the emergence of shared values and relational norms acting as a guild which are expected to safeguard the relationship against opportunism (Williamson, 1991; Ring and Van De Ven, 1992). Thus as opportunism diminishes ex post transaction cost is also reduced (Buvik and John, 2000; Ring and Van De Ven, 1992). Joshi (1998) found relative dependent manufactures are able to resist powerful suppliers through opportunistic behavior and they do so only when low relational norms characterized their relationship with the supplier. Joshi and Stump (1999) also found out that relational norms are capable of increasing commitment whiles it decreases opportunism.

In applying relational contract theory to this study, for example, it is expected that the relationship between a cocoa grower (supplier) and the purchasing agent (buyer), both of whom have interacted over a period of time and knows each other well will have developed personal friendships in their day-to-day interactions. Such relationships will be characterized by some level of trustworthiness and are therefore expected to be governed by relational norms such that the hazards of opportunism are diminished and the need for elaborate formal governance is rendered unnecessary.

Buying firms that have developed such cordial and trustworthy relationship with their suppliers are likely to be perceived by the suppliers with much admiration and approval. Buying agents representing such firms too are likely to be seen as working in the best interest of cocoa growers as a result of the mutual beneficial relationship outcomes, trustworthiness and good quality of the relationship. It is therefore expected that cocoa growers in such relationships will view the buying firms and their agents as being less opportunistic. This is because relationships characterized by friendships and personal relationships; trustworthiness and the granting of favors to each other without fear that one party will take advantage of the other and behave opportunistically are perceived in a more positive outlook.

2.4 Summary

In this chapter transaction cost analysis and relational contracting theory which are the main theory for this study is presented. In transaction cost analysis, bounded rationality; opportunism; specific assets and uncertainty are presents whenever a transaction takes place. Specific assets lead to dependence and this increases the incidence of opportunism. In relational contracting theory relationship duration, norms and trust guides the behavior of business relationships in a buyer seller relationship. The next chapter presents an overview of the cocoa industry in Ghana.

CHAPTER 3
THE COCOA INDUSTRY IN GHANA - AN OVERVIEW

3.1 Introduction

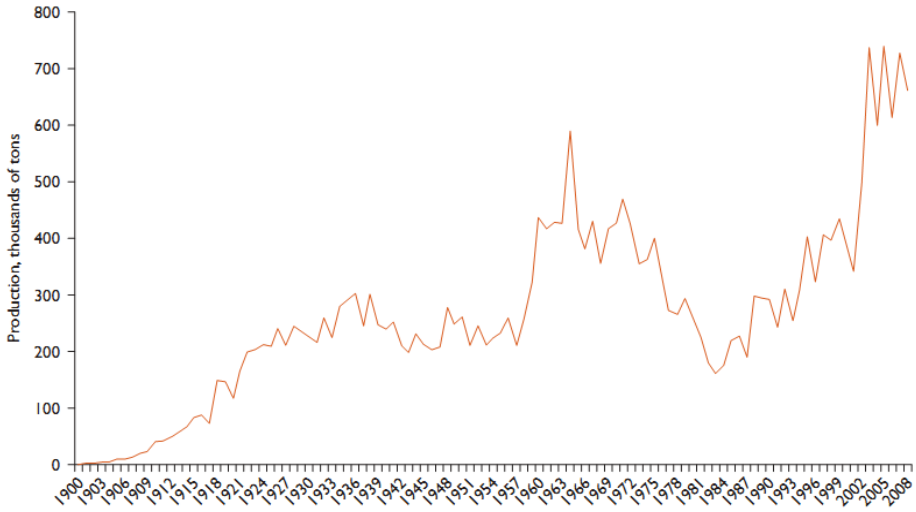
In the previous chapter, a review of the relevant literature on transaction cost analysis and relational contracting theory was presented. This chapter discusses an overview of the cocoa industry in Ghana. The Cocoa industry in Ghana was characterized by a monopsony situation where there are many suppliers with only one buyer. As part of the World Bank Structural Adjustment Programs (SAPs) the sector was liberalized in 1992/93. Ghana Cocoa Board's (COCOBOD) monopoly over the internal purchase of the crop and external marketing of the crop was changed with the introduction of some level of competition in the internal marketing of the product. Private participation was introduced in the internal purchase and marketing of the crop. This chapter therefore looks at the history and development of cocoa in Ghana, cocoa production, marketing, delivery and processing.

3.2 History and development of Cocoa in Ghana

Cocoa is a corruption of the word "Cacao" which comes from the botanical name of cocoa "cacao theobroma". It was introduced into Ghana in 1876 by Tetteh Quarshie a Ghanaian blacksmith who worked in Fernando Po (now Bioko in Equatorial Guinea). He returned home to Ghana with a single cocoa pod, the seeds of which he planted at Mampong in Akwapim, a town 50km from Accra (Amoah, 1998; Glavee-Geo, 2012). Earlier, the Dutch missionaries were reported to have planted cocoa in the coastal areas of Ghana (then Gold Coast) in 1815, and Basel missionaries also planted cocoa at Aburi in 1857 but these were unsuccessful until the introduction of the crop by Tetteh Quarshie (Amoah, 1998; COCOBOD, 2012; Glavee-Geo, 2012).

The development of cocoa in Ghana has been categorized into 4 phases according to Kolavalli and Vigneri (2011) as: Introduction and exponential growth (1888-1937), Stagnation and growth post-independence (1938-1964), the down turn (1964-1982) Recovery and expansion (1983- 2008). These developments are illustrated in Figure 3.1 below.

Figure 3.1 Ghana's cocoa production 1900-2008



Source: Kolavalli and Vigneri (2011)

3.3 Cocoa Production

According to Quartey (2007) and Glavee-Geo (2012), an estimated 1.2million hectare of land is used for the cultivation of cocoa in Ghana with a population of about 800,000 smallholder farmers engaged in the cultivation and sale of this crop. The ideal weather condition for cocoa is tropical environment. Hence, it does well in tropical rainforest and requires temperatures of between 18°C and 32°C (65°F to 90°F) and rainfall between 1000mm to 3000mm (400 inches to 1,100 inches) per year. The crop is a perennial tree crop with a life-cycle of between twenty-five to thirty years (Awua, 2002; Glavee-Geo, 2012). There are two main cocoa seasons in Ghana. The main crop season starts from October till June and the mild or light season is between July till September according to Anthiono and Darkoa (2009).

The main cocoa growing areas in Ghana are in six regions of Ghana notably the Ashanti, Eastern, Brong Ahafo, Central, Western and the Volta region where there are favorable agronomic conditions for the cultivation of the crop. This is shown in Figure 3.2 below. As can be seen from Figure 3.2, the cultivation of cocoa is concentrated mostly in the forest belt of Ghana covering the middle belt and extending to the western part of the country. These areas present favorable conditions for the cultivation of the crop after which they are transported finally to the south for export; or sale to local processors.

Figure 3.2 Cocoa Cultivation in Ghana

Source (Cadbury Skills Space 2012)

Ghana was between 1911 and 1978 the largest exporter of cocoa producing an average 30 percent of the world market. Currently it is the second-largest grower of cocoa after the Ivory Coast (Amoah, 1995). Figures from the International Cocoa Organization (ICCO) shows Ghana produced 662,000 and 632,000 tons in the 2008/2009, 2009/2010 seasons respectively. In the current state of recovery and expansion Ghana is aiming to produce between 850,000 – 900,000 tons in the ongoing 2011/12 season after hitting a record of over 1 million tons in the 2010/2011 season (ICCO, 2012). According to the World Cocoa Foundation (2010), Ghana's production for 2009/2010 accounted for 21% of global production. The world cocoa production from 2008 to 2011 is shown in figure 3.3 below.

Table 3.1 World Cocoa Production

Production of cocoa beans (thousand tonnes)						
	2008/09		2009/10		Estimates 2010/11	
Africa	**2516**	**70.0%**	**2483**	**68.4%**	**3180**	**74.8%**
Cameroon	224		205		230	
Côte d'Ivoire	1223		1242		1511	
Ghana	662		632		1025	
Nigeria	250		235		240	
Others	157		168		175	
America	**478**	**13.3%**	**517**	**14.2%**	**540**	**12.7%**
Brazil	157		161		200	
Ecuador	135		150		145	
Others	186		206		195	
Asia & Oceania	**598**	**16.6%**	**632**	**17.4%**	**530**	**12.5%**
Indonesia	490		550		440	
Papua New Guinea	59		39		45	
Others	48		44		45	
World total	**3593**	**100.0%**	**3631**	**100.0%**	**4250**	**100.0%**

Source: ICCO Quarterly Bulletin of Cocoa statistics XXVII, Cocoa year 2010/2011.

Cocoa production for export has been the main export earner for the country. It provides employment for millions of people whose livelihood dependent on it and contributes about 9% to agriculture GDP (Anin-Kwapong and Frimpong, 2004). Between 1990 and 1999 the crop contributed about 3.4% of total gross domestic product and 29% of total export revenue per annum, (Anon, 2001) and between 2000 and 2003 it contributed 22% (Dormon et al. 2004). According to a Bank of Ghana report, as at the end of November 2011, cocoa earned Ghana $1.9 billion (Bank of Ghana, 2011). Due to the importance of the cocoa sector to the economy of Ghana, the state has always been involved in its management through the state owned Ghana Cocoa Board.

3.4 Cocoa Marketing in Ghana

From 1947 until 1993 the state was the only buyer of cocoa through the Ghana Cocoa Board (known as COCOBOD). The Ghana Cocoa Board (COCOBOD) was the sole buyer of cocoa in the country through Cocoa Marketing Company (CMC) its marketing branch by virtue of a legislative instrument. It had direct control over the purchasing of the commodity right from the farm gate to when it is finally exported. COCOBOD has monopolistic power being the sole purchaser of cocoa in Ghana and this gives it a strong buyer power and bargaining power. This affects the industry because the price at which the commodity is sold is determined by the buyer COCOBOD (Anthiono and Aikins, 2009).

3.4.1 Cocoa Market Reforms

As part of the World Bank Structural Adjustment Programs (SAPs) the sector was liberalized in 1992/93. COCOBOD's monopoly over the internal purchase of the crop and external marketing of the crop was changed with the introduction of some level of competition in the internal marketing of the product with the involvement of private participants who are engaged in the purchase of the crop from the farmers. Farmers could now sell to 28 private licensed buying companies (LBC's) including the Produce Buying Company a subsidiary of COCOBOD (World Bank, 2011). However, COCOBOD still exercises much control over the governance of the chain horizontally by virtue of the fact that it is the main institution mandated by the state to regulate the industry (Glavee-Geo, 2012). Ghana is currently the only country where the government has control over the whole internal purchasing of cocoa even though there is partial liberalization with private participation. The sale of the commodity to domestic processors and direct export of the commodity by the LBCs therefore represent a very insignificant link in the supply chain as shown in figure 3.4 by the dotted lines (Glavee-Geo, 2012). The state still controls the prize at which the product is bought by the COCOBOD through the accredited buying firms (Doherty and Tranchell, 2005; Vigneri and Santos, 2007).

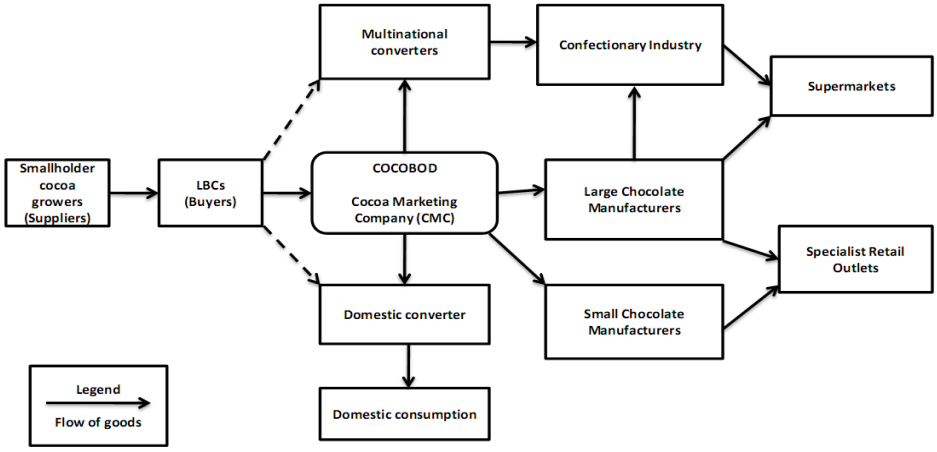
3.5 Cocoa Supply Chain

The cocoa supply chain involves several tiers starting from the farmers through various licensed buying companies (LBC's) to the Ghana Cocoa Marketing board (COCOBOD) before been sold to domestic processor or exported to manufacturing plants in other countries. This study focuses only on the relationship between farmers and licensed buying companies (LBC's) from the farmers' perspective.

The cocoa supply chain as shown in Figure 3.3 below is a more simplified illustration of the chain. The chain integrates the internal marketing of the commodity within the producer country Ghana with that of external global marketing through international trading of the commodity. The global supply chain of cocoa is made up of a complicated network of supply chain management components and their activities and supply chain business processes. It starts from the supply of the cocoa beans until it is exported and processed into finished cocoa products (Glavee-Geo, 2012). It is a complex

network involving growers (suppliers), buyers/traders (LBCs), COCOBOD the exporter grinders/ converters, manufactures and retailers. Although LBCs have been granted permission to export the commodity and to sell some of their purchases to domestic processors, they can only do so through the COCOBOD. The sale of the commodity to domestic processors and direct export of the commodity by the LBCs therefore represent a very insignificant link in the value chain as shown in figure 3.4 by the dotted lines (ibid).

Figure 3.3 Cocoa Commodity Supply Chain



Source: Adapted from Gilbert (2008), Glavee-Geo (2012)

3.6 Cocoa Delivery

The delivery of cocoa, starts first with the farmers delivering cocoa from their farms to about 3000 depots or locations known as “society” or buying centers comprising of village or hamlet cottage where the licensed buying companies (LBC’s) buys the cocoa. At these centers the purchasing clerks (PC) acts as agents for the LBC’s and they are responsible for preparing the crop for weighing (Anthiono and Aikins, 2009). The Quality Control Division (QCD) of the COCOBOD does the grading and sealing of the cocoa at the depot before they are transported by private transport service companies to either one of the three take-over locations in Tema port, Takoradi port or Kaasi inland port in Kumasi where it is delivered to Cocoa Marketing Company (CMC) the export subsidiary of COCOBOD after it has been checked and re-inspected. CMC sees to it that the cocoa is loaded into shipping containers and shipped abroad to cocoa product manufacturers in more than 25 locations (World Bank, 2012).

3.7 Cocoa processing

Cocoa processing involves various supply chain management processes and value adding activities. The processing of cocoa involves the conversion of cocoa into the nib, liquor, cake, butter and powder. Firms engaged in cocoa processing are known as grinders or converters, and are either multinationals or local companies. Some multinational converters are located in the producer countries. The large converters are trading companies who are not involved in manufacturing of chocolate and the large chocolate manufactures which have the capacity to process the cocoa beans can also buy from the exporters directly (Amoah, 1995, 1998; Gilbert, 2008), but this is not the case in Ghana since they can only buy through the Ghana Cocoa Marketing board (COCOBOD). The global cocoa processing industry is dominated by a few large manufacturers whilst in Ghana, the domestic processing of cocoa is done by 8 grinders but only three of these are dominant. The firms are Cargill, Barry Callebaut and ADM. Ghana Cocoa Board (COCOBOD) delivered 129,074 metric tons to 7 of these grinders and they processed 50, 933 ton of cocoa liquor, 22,944 tons of cocoa butter, 19,180 tons of cocoa cake and 5,054 tons of cocoa powder (World Bank, 2012).

3.8 Summary

In this chapter, an overview of the cocoa industry of Ghana was presented, starting with a brief history and development of the industry, the production, delivery and processing of cocoa. The supply chain of the sector was also presented. The structure and the main stakeholders of concern in this study; the suppliers (farmers), the buyers (LBC's) and the industry regulator the Ghana Cocoa Board (COCOBOD) will be presented in chapter 5 under the research setting. In chapter Four, the research model and the hypothesis of the study would be presented.

CHAPTER 4
RESEARCH MODEL AND HYPOTHESES

4.1 Introduction

In this chapter the research model on which the research hypotheses were developed for the study is presented. The various constructs presented in the model are also defined and discussed. Transaction Cost Analysis and Relational Contracting Theory which were reviewed in chapter two are applied in developing the various hypotheses in the study. Based on the hypotheses presented an empirical test is presented in chapter seven.

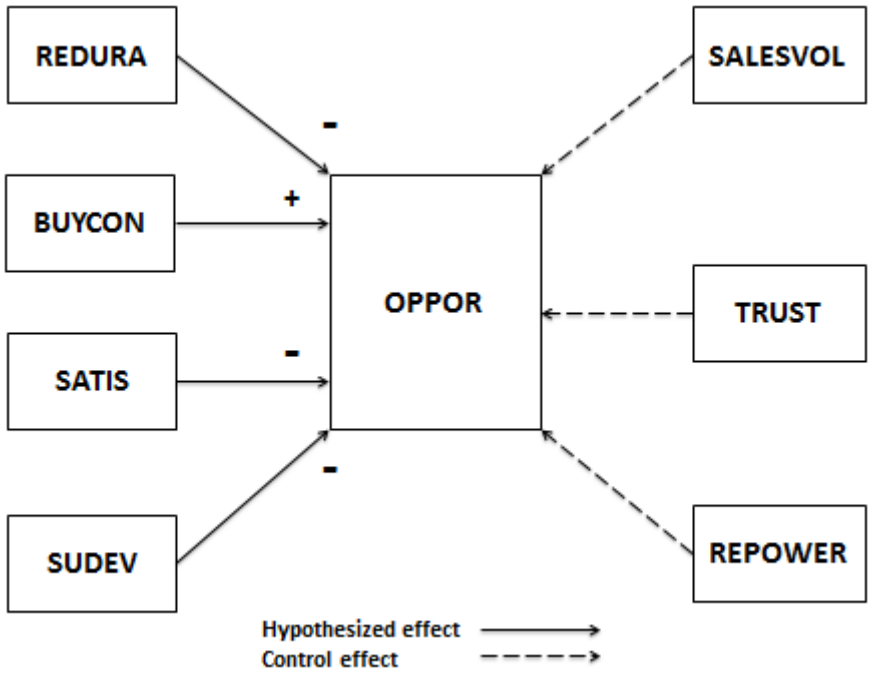
4.2 Overview of research model

The purpose of the study is to test the influence of the independent variables on the dependent variable buyer opportunism (OPPOR). The model illustrated in Figure 4.1 below focuses on how the independent variables in the study; relationship duration (REDURA); satisfaction (SATIS); buyer control (BUYCON) and transaction-specific supplier development (SUDEV) influence the dependent variable buyer opportunism (OPPOR). The control variables in the model which are: sales volume (SALESVOL); trust (TRUST); and relative power (REPOWER) are also presented.

An overview of the model presented in Figure 4.1 shows a negative association posited between relationship duration (REDURA) and buyer opportunism (OPPOR); suppliers who have prior relationship with buying firms and have been dealing with them for some time are expected to perceive their exchange partners as been less opportunistic. Buyer control is hypothesized to increase opportunism. Supplier who perceive buying agents and their firms as having an overly controlling behavior are likely to be perceived as being opportunistic. Hence an increase in the construct buyer control (BUYCON) is expected to have a positive influence on buyer opportunism (OPPOR), whilst a decrease in the supplier satisfaction (SATIS) and transaction-specific supplier development (SUDEV) are each postulated to increases perceived buyer opportunism (OPPOR). Dissatisfied suppliers are more likely to perceive buying firms' purchasing agents as being more opportunistic. Buying firms which invest less in their supplying partners are also likely to be perceived as being more opportunistic despite the need for such interventions by the suppliers to improve on their performance. The independent variable relationship duration

(REDURA) is again used as an interaction variable to measure the moderating effect of the variable supplier satisfaction (SATIS) on the influence of relationship duration on the dependent variable buyer opportunism though this is not illustrated in the diagram presented in Figure 4.1. The schematic representation of the research model is presented in Figure 4.1 below:

Figure 4.1 Research Model



Source: Own source

4.3 Definition of constructs

4.3.1 Dependent variable

Buyer opportunism (OPPOR)

Williamson (1975; p.6) defines opportunism as ‘‘self-seeking with guile’’. The scale is used to describe the degree to which a buyer is seen to be behaving in ways consistent with self-seeking interest. Examples of opportunistic behavior documented in the extant literature includes such behaviors as withholding or distorting information, lies, stealing, cheating, calculated efforts to mislead, disguise, confuse, and shirking or failing to fulfill promises or obligations (John, 1984; Williamson, 1985). Opportunism has been the subject of many researches (Cronso and Dahlstrom, 2010; Joshi and Stump 1999; Morgan and Hunt, 1994; Rokkan and Buvik, 2003; Sabel, 1993). It has been noted as the biggest threat to the integration of the supply chain (Ellram 1991; p.13).

4.3.2 Independent variables

Relationship duration (REDURA)

Relationship duration (REDURA) refers to the number of years that partners in a buyer-seller relationship have been interacting over a period of time (Buvik and Halskau, 2001; Heide and Miner, 1992). It has also been referred to as *link duration* by Kotabe et al. (2003) and use as a measure of the experiences gain from interacting between a buyer and seller. Relationship duration is operationalized as the number of years that a supplier has been dealing with a buying firm in this study.

Buyer control (BUYCON)

Buyer control has been conceptualized as the extent of the supplier's decision making that the buyer has authority and control over in a particular relationship (Buvik and Andersen, 2011; Heide, 1994). In this study, buyer control refers to the control of one partner by the other in a horizontal chain with respect to channel activities.

Supplier satisfaction (SATIS)

Supplier satisfaction has been defined variously by different authors (Ghijsen et al., 2009). Benton and Maloni (2005; p.2) defined it "as a feeling of equity with the supply chain relationship no matter what power imbalance exists between the buyer and seller dyad". To Geyskens et al. (1999; p.224) a channel member's satisfaction is usually defined as "a positive affective state resulting from appraisal of all aspects of a firm's working relationship with another firm". In this study supplier satisfaction is operationalized as both economic and social satisfaction derived within the buyer-seller relationship.

Transaction-Specific Supplier development (SUDEV)

Watts and Hahn, (1993; p.12) defines supplier development as ''a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers' technical, quality, delivery, and cost capabilities and to foster ongoing improvements''. Krause and Ellram (1997; p. 21) also defines supplier development as involving ''any effort of a buying firm with its suppliers to increase the performance and/or capabilities of

the supplier and meet the buying firm's supply needs''. This may include the use of limited as well as extensive practices by the buying firm. Supplier development according to Ghijsen et al. (2009) is usually initiated by buyers as a means of meeting the short term and long term objectives of the business relationship. This study refers to the provision of credits, inputs and extension services etc. by the buyers to the suppliers of cocoa to represent transaction-specific supplier development.

4.3.3 Control variables

Three control variables, sales volume (SALESVOL); trust (TRUST); and relative power (REPOWER) were in incorporated into the model. Control variables are included in order to provide alternative explanation for the dependent variable.

Sales volume (SALESVOL)

Sales volume refers to the annual amount of sales by a seller to a buyer. Sales volume is expected to influence satisfaction. High volumes of sales are expected to lead to economic and social satisfaction and hence overall satisfaction with the relationship.

Trust (TRUST)

Trust is defined as "a willingness to rely on an exchange partner in whom one has confidence" according to (Moorman et al., 1992; p.82). The role of trust is summarized by Sullivan and Peterson (1982; p.30) in Dwyer et al. (1987) as where parties trust one another there is the possibility of them overcoming challenges with regards to power conflict, low profitability and the likes. Thus the existence of trust is seen as an adequate safeguard thereby requiring no formal contracts against eventuality. Trust just like satisfaction have both been suggested as key factors of relationship marketing, but, satisfaction is rather seen as an important source for trust (Selnes, 1998). Suppliers who trust buying agents see them as been less opportunistic. Agents of buying firms (purchasing clerks) and some growers have had cordial relationship over time, where personal relationships and friendship have developed. Such cordial and trustworthy relationships have made the growers to perceive the buyers as been less opportunistic.

Relative power (REPOWER)

Maloni and Benton (2000) defined Power as "the ability of one firm (the source) to influences the intentions and actions of another firm (the target)". The relative power of a firm over another is the result of the net dependence of one on the other. This may be due to the differences in turnover or value of sales and size of suppliers compared to buying companies. These differences place the suppliers in a less powerful position in the

exchange such that the buying companies are more powerful and have the leading role in establishing policies relating to relationship administration and distribution of rewards (Glavee-Geo 2012; Griffith et al, 2006). In this study there is relative power between the suppliers of cocoa and the LBC's the buyers. This gives the buyers the power to determine the terms of the trade such as quality consideration.

4.4 Hypotheses

Buyer control and buyer opportunism

Buyer control corresponds to centralization, where the concentration of decision making authority or the degree of vertical control in the buyer seller relationship is on the buyer side (Heide, 2003). The implementation of this governance arrangement is expected to stabilize the terms of trade and overcome the performance measurement difficulties linked to bilateral dependence (Williamson, 1985). Transaction Cost theory posits that the presence of transaction-specific assets within an exchange relationship leads to "Contractual hazards" for this reason specialized governance structure in the form of vertical control are expected to be in place to act as a safeguard (Heide and John, 1992; Williamson, 1985).

Buvik and Andersen (2011) referred to hierarchical governance as buyer control in a buyer-seller relationship and stated that specific supplier investments and hierarchical governance (buyer control) leads to opportunism. In this study buyer control has been seen to be exercised by the buyer at the horizontal level due to the exercise of authority and control over the decisions making of the suppliers. Due to the fact that dependency creates an instance of power imbalance, the supplier's dependency on the buyers creates a relative power situation where power is more towards the buyer's and this enhances the buyer's ability to control the decisions of the supplier (Anderson and Weitz, 1989; Emerson 1962; Joshi, 1998). Suppliers may retaliate as profess by the resistance perspective of Joshi (1998) through counter measures (Rokkan and Buvik, 2003) but in the case of this study the suppliers are unable to retaliate because of the structural power of the buyers in comparison to the suppliers and the monopsony situation of the market.

Hierarchical control by the buyer makes the suppliers to perceive buyers who have much control over them to be more opportunistic. This is because buyers who have more control over the suppliers are those that can get the opportunity to exercise that control and behave opportunistically. The influence of terms of trade by the buyers through quality

assurance measures which are non-negotiable. For example buying agents representing the buying firms exercise control over the cocoa growers not only in terms of ensuring quality consideration and price but also as to who gets support in terms of credit, tools and equipment and rewards. This control especially at the personal level between the buying agents and the growers make it easier for the buying agents to dictate terms of trade (Glavee-Geo and Buvik 2012a). Suppliers therefore see this controlling behavior of buyers as a means through which opportunistic behaviors can be realized. Based on this it is proposed that:

H_1**:** There is a positive association between buyer control and buyer opportunism.

Supplier Satisfaction and buyer opportunism

Research on supplier satisfaction has been noted to be few and those that exist are mainly conceptual in nature (Benton and Maloni, 2005) in Ghijsen et al, (2009). According to Rodriquez et al (2006) satisfaction has been considered as one-dimensional by some authors (Andaleeb, 1996; Anderson and Narus, 1984; Ganesan, 1994; Selnes, 1998; and others) in the literature due to its affective nature. Whilst others recognizes that satisfaction has two dimensions: economic and non-economic, psychological or social satisfaction (Gassheimer et al., 1995; Gassheimer et al. 1996; Geyskens et al, 1999; Geyskens & Steenkamp, 2000; Rodriquez et al, 2006). Geyskens et al, (1999) distinguish between economic satisfaction which has to do with the economic rewards of the relationship and noneconomic satisfaction which is fulfillment and gratification derived from psychosocial aspect of the relations with an exchange partner.

Opportunism is an important variable in an exchange according to transaction cost analysis. Williamson (1975:6) defines opportunism as ‘‘self-seeking with guile’’. Opportunism was found within the fast food industry to reduce franchisee satisfaction in a study by Gassenheimer et al. (1996). In another study support was found for the negative association between satisfaction and opportunism by Cronso and Dahlstrom (2010). Due to its negative effect it undermines relationship continuation (Bucklin and Senugupta 1993; Parkhe 1993). The exercise of opportunistic behavior by an exchange partner leads to a reduction in both social and economic satisfaction of the other party or the relationship as a whole (Glavee-Geo and Buvik, 2012b). In this case the satisfaction in terms of the economic benefits derived from the sales of cocoa by the suppliers; the social satisfaction as a result of personal friendship and cordial relationships developed from past

transactions among other benefits makes the suppliers to see the buyers as people who care for them and want the best for them. Thus perceived opportunism by an exchange partner in a relationship is expected to results in dissatisfaction. Suppliers who have more satisfactory buyer-seller relationship with the buyers perceive them as being less opportunistic and suppliers who perceive their buying agents to be behaving opportunistic would be dissatisfied and are unlikely to continue in the relationships (ibid). It is therefore propose that:

> H_2: There is a negative association between supplier satisfaction and buyer opportunism.

Transaction-Specific Supplier development and buyer opportunism

Transaction-specific supply development entails investments made by a buying firm in its suppliers (Wagner, 2006). These supplier development efforts are intended to improve performance and the supply chain as a whole when used with other factors such as effective communication, the involvement of top management from the buyer side and the long term prospect of the buyer (Handfield et al., 2000; Humphreys et al., 2004; Krause and Ellram, 1997). Some supply development efforts are relationship specific in that the buying firm commits time and resource towards the supplier development through site visitations, offering of technical assistance, training and education etc. (Krause and Ellram, 1997; Wagner, 2006).

Buying firms invest in transaction-specific dedicated assets. The level of these transaction-specific investments by a buyer to a seller is considered a sign of the buyer's commitment to that supplier. From the compliance perspective in Joshi (1998) the employment of specific assets by manufacture or buying firm implies a long term profit and this implies the buying firm will not act opportunistically towards their suppliers because should they do so, this might leads to supplier hold-ups which will threaten the continuation of the exchange business. Suppliers can also behave opportunistically after receiving such investments due to the fact that they know it is not refundable on the cancellation of the relationship. However in this study it is the case of the buyers who manifested opportunism in the buyer seller relationship. The buyer's investment in suppliers is therefore expected to be inversely associated with the buyer's opportunistic behavior to the supplier (Bucklin and Sengupta 1993; Parkhe, 1993).

Transaction-specific supplier development in terms of the provision of credit; training and education; equipment and tools improved seedlings and performance improvement initiatives are supposed to help the growers to improve upon their performance and increase their outputs. Such investments by buyers in the growers does not only helps improve the suppliers' performance but also makes the suppliers perceive the buying firms as people who cared for them and want them to improve on their performance (Glavee-Geo and Buvik, 2012b). The suppliers who are recipient of such interventions see the buyers as people who are less opportunistic. In view of the above discussion we posit that:

H_3: There is a negative association between transaction-specific supplier development and buyer opportunism.

Relationship duration, Supplier satisfaction and Buyer opportunism

Relational duration or the history of a relationship (Heidi, 1994) has been recognized to be important in accessing the form of governance structure that should be in place and also lead to relational norms (Heidi and John, 1990; Macneil, 1980). The history of relationship brings about norms formation and the development of personal relationship which guides the way the buyer seller relationship is organized (Buvik and John, 2000; Macneil, 1980). Relational contracting theory posits that prior history of relationship is expected to lead to certain norms such as trust and personal relationships that will affect the way the relationship between two parties are organized (Buvik and Reve, 2002; Macneil, 1979, 1980). The relational norms established over time during an exchange relation then act as a reference on acceptable behavior limiting opportunism (Bradach and Eccles, 1989; Buvik and Burki, 2010; Ouchi, 1979; Stinchcombe, 1987).

Relationship duration is expected to reduce the incidence of opportunism within a buyer seller relationship. However according to John (1984; p.279) the potential for partner to be opportunistic is greater with time due to the fact that it is difficult to break the relationship or too expensive to be done. The buyer-seller relationship is also expected to result in satisfaction (Rodriguez et al, 2006). Various studies have studied the issue of satisfaction and its importance in channel relationships (Brown and Frazier, 1978; Dwyer et al 1987; Geyskens and Steenkamp, 2000). In these studies, it was found out that satisfaction increases a channel member orientation to long term relationships, ensures

continuation of relations and reduces conflict. However, opportunism has been found to reduce satisfaction. It is thus expected that satisfaction will play a moderating role between relationship during and buyer opportunism. Suppliers of cocoa who have been in a longer buyer-seller relationship with the buyers of their commodity are posited to perceive the buyers to be less opportunistic as relationship duration is expected to reduce perceived opportunism as depicted in figure 4.2 below.

Figure 4.2 illustrates the moderating effect of supplier satisfaction on the influence of relationship duration on buyer opportunism. In the top section perceived buyer opportunism is seen to be decreasing as relationship duration increases when supplier satisfaction is high. Whilst in the bottom part when supplier satisfaction is low or moderate, buyer opportunism is now seen to be increasing as relationship duration increases. A fuller explanation is given below, using the matrix in figure 4.3 below.

Figure 4.2 Moderating effect of Supplier satisfaction

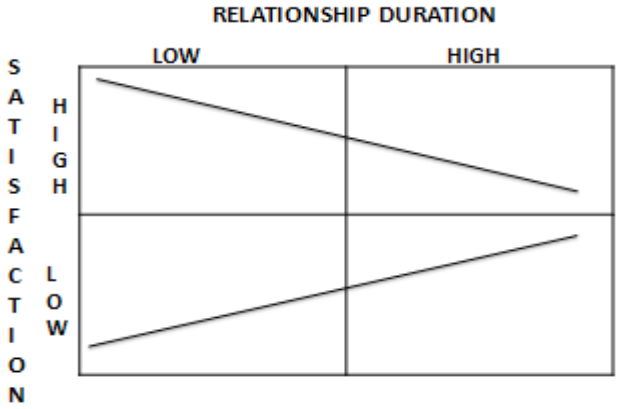
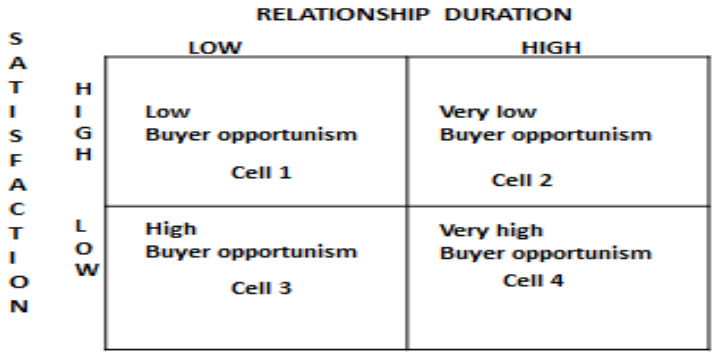


Figure 4.3 Matrix of Relationship duration, Supplier satisfaction and Buyer opportunism



Cell 1 A cocoa supplier who has had a short relationship with a buyer and is highly satisfied with the relationship outcome perceives buyer opportunism to be low.

Cell 2 this shows an instance where a supplier has long history of dealing with a particular buying firm and its buying agent and is highly satisfied in terms of relationship outcomes. Such a supplier is expected to perceive the buying firm as being less opportunistic.

Cell 3 here relationship duration is at an earlier stage of the relationship and supplier satisfaction is low/moderate, the perception of the supplier is that the buyer's opportunism is increasing.

Cell 4 finally when a suppliers duration of exchange with a buyer is long but the satisfaction derived from this exchange has always been low then relationship duration enforces his dissatisfaction of the supplier and his perception is that, the buyer's opportunism is seen to be increasing with time. Meaning that, suppliers who have had unsatisfactory relationship outcomes with buying firms and their agents after several years of dealing with them are likely to perceive the buyers and their agents as being very opportunistic with time. Hence in view of the above discussion, we suggest that:

> H_4: Under conditions of high supplier satisfaction, there is a stronger negative association between relationship duration and buyer opportunism than under condition of low/moderate supplier satisfaction.

4.5 Summary

In this chapter, the research model and the hypotheses for the study have been presented. The various constructs included in the model were defined. The control variables; the hypothesized main effects and the interaction effect were also presented. In the following chapter the research methodology adopted in the study is presented.

CHAPTER 5
RESEARCH METHODOLOGY

5.1 Introduction

The preceding chapter discussed the research model and the hypotheses that were formulated for the study based on the research questions (chapter1) and the theoretical framework (chapter 2). This chapter presents a discussion of methodological issues relevant to the study. It gives an overview of the philosophical position of the study; the research design, the research setting and geographical location of the study. It also discusses data collection strategies and sampling procedures and how these methodological issues were addressed in the study.

5.2 Philosophical Position

Researchers are advised to consider their philosophical position as an aid in their decision on a choice of a research design (Easterby-Smith et al. 2002). Two main research paradigms were suggested to be used in marketing research (Easterby-Smith et al. 2002; Malhotra and Birks 2006). These research paradigms are; the positivist and the interpretivist paradigms. These two paradigms have been referred to by other different names; the positive research paradigm is also referred to as quantitative, objective, scientific experimentalist or traditionalist whilst the interpretivist is also referred to as qualitative, subjective, humanistic, phenomenological and revolutionist (Malhotra and Birks 2006).

According to Malhotra and Birks (2006) the positivist use a deductive approach in arriving at conclusion by first identifying an area based on a well-developed theory for research. The issue for the enquiring thus is based on theoretical framework already established. Variables are then identified to be measured in the form of hypotheses and an instrument to measure these variables are developed. Followed by the collection of responses based on a uniformly accepted language and logic after which the responses are analyzed based on established theoretical framework. The researcher then tests the theory (could also be an integration of different theories) as to whether the hypotheses are supported or rejected, and hence an existing theory is developed incrementally by the

testing of the theory in a new situation. The interpretivist on the other hand uses the inductive method to arrive at a conclusion by following this procedure. The researcher identifies an area for research base on little or no theoretical framework. The focus of the research is either to observed, or responses are collected from within a particular context and the responses of respondents are used as a guide to conform to that particular context. After this the broad themes identified are discussed by either observation or further probing to gain more insight into the themes. From here the researcher then develop the theory through the search for things happening and the linkage of these happenings. A model is thus developed based on the enfolding events (Malhotra and Birks 2006).

The philosophical position followed by this study is the positive perspective. The work is based on established theories (Transaction Cost Analysis and Relational Contracting Theory) variables where identified to be measured based on the hypotheses formed and responses were collected which are analyzed based on established theoretical frame work in chapter 7. This study is quantitative in nature since it uses research techniques that quantify data and involves the application of statistical analysis (Malhotra and Birks 2006).

5.3 Research Design

According to Churchill (1999; p.98) research design is a plan showing how the researcher would be collecting and analyzing data. It shows the steps followed in undertaking a study. The purpose of a research design is to ensure that the study undertaken conforms to the problems and also less economical procedures are used. Churchill (1999) noted that there is no single procedure or framework in research design rather they have been classified into basic types based on the basic objective of the research: as explorative, descriptive or casual. Malhotra and Birks (2006) on the other hand categorized research design into two broad categories exploratory design which includes quantitative and qualitative and conclusive design which includes descriptive and causal research.

This study uses a descriptive research design which is a form of conclusive research. Descriptive research is concerned with finding out the number of times something happens or the relation between two things or variables (Churchill 1999). It is

used for the purpose of describing the attributes of groups, for estimating a proportion of a population that behaves in a like manner and to make predictions. Its major objective is to describe something for this reason it is pre planned and structured and the research question and hypotheses are specified beforehand. It also specifies the data collection methods and the criteria for selecting information sources (Malhotra and Birks 2006). Descriptive research presupposes that the researcher already have some idea about the issue under study and relies on one or more hypotheses. Descriptive research is seen to be rigid and the question of "who, what when, where, why and how" must be clearly specified in the research. Descriptive research design is further classified into longitudinal which comprises true panel and omnibus panel and cross-sectional which involves sample survey (Churchill 1999).

This study uses a pilot study survey of cocoa growers of Ghana. The advantage of using cross-sectional data is that it is collected at a single point in time and therefore less expensive than the use of longitudinal survey which involves conducting the survey over different time periods from the same respondents. The rationale for choosing the descriptive research design is because both research questions as well as hypotheses which had been specified earlier in chapter 4 are formulated beforehand; data is then collected by survey and appropriate statistical analyses are then conducted to test the hypotheses. The hypotheses are then supported or refuted. This then adds to theory development by the support of hypotheses which sheds lights on the phenomena the theory seeks to explain.

Apart from the descriptive research design the two other types of research design are explorative research and casual research designs. An explorative research is concern with finding ideas and insights to generate possible reasons of a problem and it is use for the formation of problem for specific investigation whilst casual research mostly involves experiments and are undertaken to find the relationship between cause and effect (Churchill 1999).

5.4 Empirical setting and Geographical Location of the study

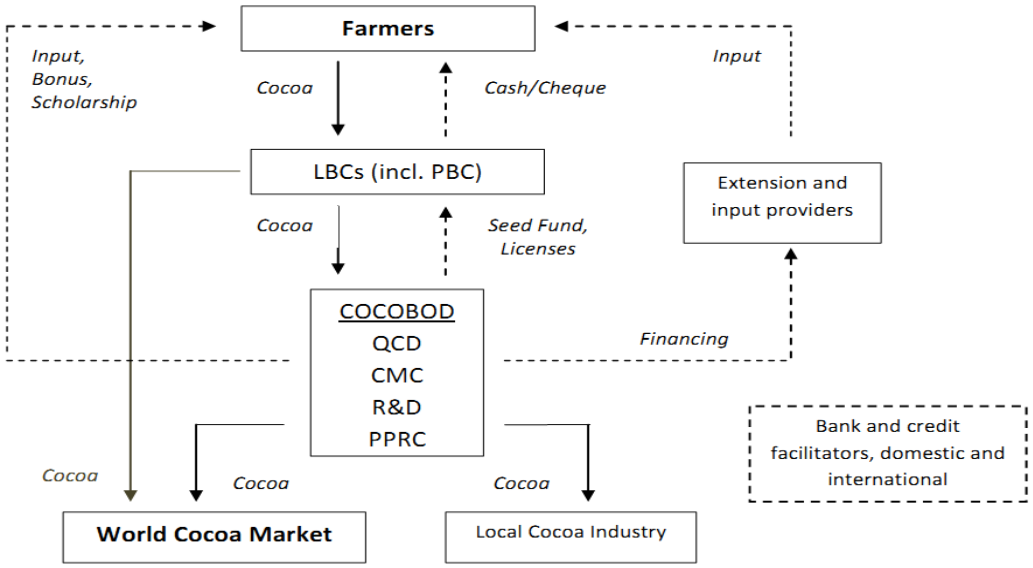
The Ghanaian cocoa industry is the empirical setting for this study. The study seeks to investigate some antecedents of suppliers' perception of buyer opportunism and the contingent effect of transaction-specific supplier development on the influence of relational duration on buyer opportunism in buyer seller relationships. The cocoa industry

of Ghana is a very important industry for the country; it serves as a major source of income to the country and provides employment to the millions of people involved in the various activities entailed in the supply, warehousing, transport, processing and export of the commodity.

The empirical context for this study is the relationship between growers of cocoa (suppliers) and LBCs (buyers). The industry is characterized by buyer control of the farmers by licensed buying companies (LBC's). The focus of the study is buyer opportunism while the unit of analysis is the relationship between the smallholder farmers and the buying agents. The geographical location for the study is the Oda district of the eastern region of Ghana, it is the municipal capital of the Birim Central municipal district with a population of about 38, 000 inhabitants. The town lies along the hilly side of the rain forest in the Birim River basin.

The structure of the cocoa sector is shown in figure 5.1 below. The main actors of interest to this study are the small holder farmers, the License Buying Companies (LBC's) and the Ghana Cocoa board (COCOBOD). The activities of these actors are shown in the structure of the industry depicted in figure 5.1 below.

Figure 5.1 Structure of the Cocoa Industry



Source: Lundstedt and Parssinen (2009)

5.4.1 Smallholder farmer

The cocoa sector has about 800,000 smallholder farmers who are the main upstream suppliers in the cocoa supply chain (Anin-Kwapong and Frimpong, 2004).

Farmers in Ghana are paid a guaranteed fixed price which is a minimum 70% of the projected free on board (FOB) price referred to as the producer price. The farmers therefore make the choice of which LBCs to sell to depending on prompt payment and the degree of trust that the farmer has in the LBCs agent so they try to avoid the less trust worthy ones (Vigneri and Santos, 2007). The granting of loan or credit and the subsidizing of input also play a role in the choice of which buyer to sell to.

According to (Opoku, 2012) the cocoa farmers are organized under the Ghana Cocoa, Coffee and Shea-nut farmers association (GCCSFA). The farmers benefit from the Ghana Cocoa Board in the form of fertilizers at subsidized prices, social amenities such as solar energy, bole holes for water, roads linking cocoa growing areas, housing schemes and the award of educational scholarships to their wards. They also depend on the License Buying companies for yearly cash bonus it pays (Opoku, 2012). On the contrary Lavan (2007) believes the Cocoa farmers in Ghana do not benefit much, they lack the organizational support for their power to negotiate, and also lack the bargaining power in relations to the state.

5.4.2 Licensed buying companies (LBC's)

Licensed Buying companies are private business granted permission to partake in the internal marketing of cocoa in Ghana as part of the liberalization of the cocoa sector. Although LBCs have been granted permission to export the commodity and to sell some of their purchases to domestic processors, they can only do so through the COCOBOD. The introduction of private participation in the internal marketing of cocoa has brought in its wake some form of competition in the system. According to Varangis and Schreiber (2001), the competitive purchasing of cocoa in the internal markets of producing countries results in efficiency and higher producer prices to farmers. However, COCOBOD is the single largest buyer of the commodity from the LBCs for sale to both overseas customers and to some domestic processors. The LBC's have been noted to cluster in the areas where a lot of cocoa farmers exist so that they can be able to buy from a few producers that produce on large scale (Vigneri and Santo 2007). Table 5.1 below shows LBC's and their ranking by market share.

Table 5.1 LBC's ranking by market share

		Market Share (%)					
	LBC	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009*	5-Year Average
1	Producer Buying Company	37,60%	32,76%	30,28%	30,63%	32,87%	32,83%
2	Akuafo Adamfo Marketing Co. Ltd.	13,11%	11,37%	9,29%	12,63%	13,45%	11,97%
3	OLAM Ghana Ltd.	13,18%	13,87%	11,47%	7,94%	7,11%	10,71%
4	Adwumapa Buyers Ltd.	7,24%	8,95%	9,75%	9,02%	8,14%	8,62%
5	Federated Commodities Ltd.	6,77%	6,82%	7,57%	6,90%	7,14%	7,04%
6	Kuapa Kokoo Ltd.	6,80%	6,61%	5,58%	5,29%	5,27%	5,91%
7	Transroyal Ghana Ltd.	5,06%	5,70%	6,71%	5,57%	5,54%	5,72%
8	Armajaro Ghana Ltd.	5,36%	4,97%	5,12%	6,86%	6,21%	5,70%
9	Cocoa Merchants Ghana Ltd.	2,21%	2,37%	3,59%	3,33%	4,36%	3,17%
10	Diaby Company Ltd.	0,09%	1,23%	4,03%	4,24%	3,91%	2,70%
11	Dio Jean Company	0,38%	1,26%	1,73%	1,30%	0,66%	1,07%
12	Royal Commodities Ltd.	0,45%	0,79%	1,09%	1,19%	1,69%	1,04%
13	Sika Aba Buyers Ltd.	0,10%	0,89%	1,00%	0,99%	1,24%	0,84%
14	Chartwell Ventures Ltd.	-	0,13%	0,95%	2,25%	0,68%	0,80%
15	Sompa Kokoo Ltd.	0,90%	0,68%	0,52%	0,43%	0,49%	0,60%
16	West Africa Exchange Co. Ltd.	0,33%	0,49%	0,75%	0,26%	0,07%	0,38%
17	CocoExco Ltd.*	0,41%	1,12%	-	-	-	0,31%
18	Evadox Ltd.	-	-	-	0,93%	0,45%	0,28%
19	Sunshine Commodities Ltd.*	-	-	0,57%	-	-	0,11%
20	Allied Commodities Ltd.	-	-	-	0,10%	0,25%	0,07%
21	Fereday Company Ltd.	-	0,04%	0,03%	0,10%	0,12%	0,06%
22	Farmers Alliance Co. Ltd.**	-	-	-	0,03%	0,10%	0,03%
23	CDH Commodities Ltd.**	-	-	-	-	0,11%	0,02%
24	Ghana Co-operative Marketing Co. Ltd.	-	-	-	0,01%	0,05%	0,01%
25	Aba Pa Golden Ltd.**	-	-	-	-	0,05%	0,01%
26	Yayra Glover Ltd.**	-	-	-	-	0,04%	0,01%
27	Aboafo Buying Co. Ltd.**	-	-	-	-	0,01%	0,00%
28	Duapa Buyers Co. Ltd.**	-	-	-	-	0,01%	0,00%
	Total	100%	100%	100%	100%	100%	100%

**Licensed withdrawn* ***Newly licensed LBC, ***Ongoing season*

Source: Lundstedt and Parssinen (2009)

COCOBOD is the single largest buyer of the commodity from the LBCs for sale to both overseas customers and to some domestic processors. In a survey by Vigneri and Santos (2007) it was realized that 62% of the farmers in all the regions sold their products to the Produced Buying Company (PBC) the purchasing subsidiary of COCOBOD. According to Vigneri and Santos (2007), five LBCs dominate the entire market. They are: Produced Buying Company a former subsidiary of the COCOBOD; Kuapa Kokoo - a farmer based cooperative which works with Fair Trade; Adumapa, a Ghanaian owned company; OLAM - Singapore owned and Amajaro a UK owned business. However, the LBC's ranking by Lundstedt and Parssinen (2009) showed a few of this five have been overtaken by other LBC's in the LBC's ranking by market share as shown in table 5.1 above.

5.4.3 The Ghana Cocoa Board

Before the Ghana Cocoa Board was established, the West African Cocoa Control Board (WACCB) was established by the British Colonial Government in 1940 to purchased cocoa at a guaranteed price to farmers. Later the Gold Coast Cocoa Marketing

Board (GCCMB) was created in 1947 through an ordinance No. 16 of 1947 to control the purchase of cocoa locally (Amoah, 1998; Glavee-Geo, 2012). The GCCMB become the sole authority that buys cocoa from farmers at stable producer prices. According to Amoah (1998) and Glavee-Geo (2012) several changes in title of the Board were made between 1947 and 1984 until the Provisional National Defence Council Law 81 changed the title of the Board from Ghana Cocoa Marketing Board (GCMB) to the current name Ghana Cocoa Board (COCOBOD) in 1984 (Amoah, 1998; Glavee-Geo, 2012).

The functions of COCOBOD are performed by specialized divisions of the Board. They deal with things regarding production, quality control; internal and external marketing of cocoa; research and extension. The functions are categorized into two main sectors; pre-harvest and post-harvest. The Cocoa Research Institute (CRIG), the Seed Production Unit (SPU), and the Cocoa Swollen Shoot Virus Disease Control Unit (CSSVDCU) perform the pre-harvest functions whilst the Quality Control Division (QCD) and the Cocoa Marketing Company (CMC) Limited are the division in charge of the post-harvest functions. Their activity involves quality control measures of the farmers' produce in order for it to be accepted at the buying centers by the Licensed Buying Companies (Amoah, 1998).

COCOBOD is by far the largest purchaser of cocoa in Ghana and it still dominates the marketing system in Ghana with so much regulatory control and power at the downstream end of the supply chain. It determines the producer price to be paid to the farmers.

5.5 Data Collection

Data collection involves the collection of data either by primary and/or secondary data collection method. Both primary and secondary data was used in this study. Data collection by primary methods involve getting consent from respondents; justifying the need for the study as some respondents will like to know what the researcher will be using the information collected for; providing incentives, this helps in increasing response rates; maintaining confidentiality, the need to maintain confidentiality is very important as it is not ethical to collect information from people without their consent or without assuring them of confidentiality of the information provided. Secondary data collection may also involve seeking consent from sources especially if such information is not freely available for the public by electronic means or other means. It is important to state that the relevance

of the findings of this study to the welfare of the respondents especially with regards to buyer opportunism made it quite easy for the many respondents to accept to participate in this study.

5.5.1 Primary and Secondary data

Primary data was collected through a survey from seventy-three (73) respondent mostly small holder farmers in January, 2011. According to Malhotra and Birks (2006; p.41) primary data is data collected by the researcher to address a specific research question.

Secondary data on the other hand is data not intended for the problem at hand at the time it was collected. It may be information already generated in an organization. They are available in such forms as books, journals, articles, databases and internet sources. The advantage of using secondary data is that it is economical and it saves time however it has the disadvantage of not fitting to the problem and they are not fully accurate (Churchill and Brown 2004). For the purpose of this study secondary data was sourced from the internet web pages of the International Cocoa Organization (ICCO) and the COCOBOD. Also a review of the literature from books, journal articles on related subject, past theses from the Himolde library Brage Him pages, online sources e.g. Science direct, ProQuest, BISSY database were also made use of to gain knowledge about the subject.

5.5.2 Population, Sampling frame, Sample size and Sampling procedures

A population is a total of the cases which are in conformity with the specifications of the required designation (Churchill and Brown 2004). The population for this study consists of all the 800,000 small holder cocoa farmers in the country. Malhotra and Birks (2006:357) defined a sample as "a subgroup of the elements of the population selected for participation in the study" and "a sampling frame as representation of the element that consists of a list or set of directions for identifying the target population" Malhotra and Birks (2006; p.359). The sample frame was a list of cocoa growers (suppliers) within the Eastern region of Ghana and the sample was further narrowed down to small holder cocoa farmers in the geographical location of the Oda Township of the Akim Oda district. The sample size was 120 smallholder farmers.

A convenience sampling technique was used in the sampling procedure. It involves

the selection of respondent who happen to be around at the time the interviewer was visiting (Because it was a farming community and not all the farmers could be found at home at the time of visit). The use of convenience sampling makes it least expensive and less time consuming to obtain because the sampling units are accessible, easy to measure and they are cooperative (Malhotra and Birks 2006). Although convenience sampling was not recommended for descriptive research due to the problem of selection bias, it was allowed for the pre-testing of questionnaires and for pilot studies (Malhotra and Birks 2006).

5.5.3 Data collection techniques and procedures

Data collection was done through cross sectional data survey. The data was collected by personal questionnaire administration through face to face interviews. According to Churchill (1999) a questionnaire can be administered by mail, telephone or by personal interviews. Face-to-face interviews using a structured questionnaire were done. Face-to-used interviews are very common method of data collection especially in research settings where the administration of questionnaires by mail are likely to result in very low response rate; and where facilities for such means are not well developed. Administrations by means of telephones are also not convenient within the research setting because a long questionnaire with many question items is likely to result in very low response rate. Secondly because it was impossible to use the other forms because of the nature of their job, they had no time for such conveniences. The researcher with the assistance of two research assistants visited the individual farmers with a questionnaire to have face-to-face interviews with the respondents. Hence the dataset for this study is based on the original pilot survey conducted by PhD student/researcher Mr. Glavee-Geo in January 2011.

5.6 Measurement

According to Kerlinger (1986) measurement is the assignment of numerals to objects according to rules. Adapted multi–item scales from previous research were used to measure the constructs. This is to ensure the operationalization of each of the constructs in the model. Theory plays very important role in the conceptualization of measurement since most variables in the social sciences are not observable hence the need for theory to help in conceptualizing and operationalizing unobserved constructs (De Vellis, 2003). Poor

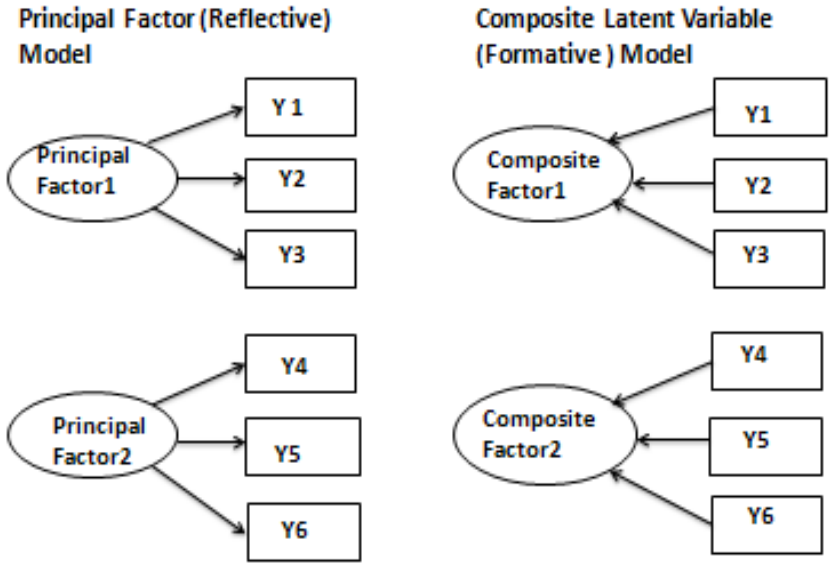
measurement is said to impose an absolute limit on the validity of conclusions that a researcher can draw from his or her studies. For this reason it is advised that it is important for a researcher to get the measurement part of the study to be conducted well from the initial beginning of the study so as to be able to draw better conclusion of the study (De Vellis, 2003). This study used adapted scales which have been used in other studies such that the validity and reliability of such scales have been unquestionable.

5.6.1 Measurement Model

Two types of measurement model have been used in inter-organizational studies to find the relationship between a set of latent constructs. These are the principal factor model also known as reflective model and the composite latent variable model which is also known as formative scales. These models involve the use of multiple indicators in measuring a phenomenon which is unobservable (Jarvis et al, 2003).

The Principal factor model involves reflective scales and shows the direction of causality from the construct to measure. The measures of the reflective scales are expected to have internal consistency to ensure reliability. The meaning of the construct is not altered when an indicator is removed from the model and this type of model takes into account measurement error at the item level. This is in contrast to the composite variable model where the direction of causality is from the measure to the construct, and it does not require internal consistency but rather requires criterion reliability and it takes into account error at the construct level (Jarvis et al 2003). However there are also similarities in both models in that both scale scores do not adequately represent the construct which leads to inconsistency in the reflective model and biased estimates in composite variable model (Jarvis et al 2003). In this study all the constructs are operationalized as latent variables and all the variables were measured using reflective scale.

Figure 5.3 Measurement Models



Source: Jarvis et al (2003:201)

5.6.2 Measurement of the variables

The guidelines proposed by De Vellis (2003) in developing measures for the latent constructs were followed in this study. De Vellis (2003) defines a scale as a measurement instrument which is joined together into a score, with the intention of revealing the level which are not easily observable but exist in theory. He proposed a guideline in scale development following eight steps similar to those proposed by Churchill (1979). This guideline is consistent with those used in previous works by (Burki, 2009; Mia and Mentzer, 2004). The most important step is the validity of the construct which is determined by the following steps: Specification of constructs; Item selection; Purification and Scale validation (Burki, 2009; Churchill 1979).

In order to determine what was to be measured, an extensive literature search was conducted regarding opportunism in buyer seller relationship and an item pool was generated. After the items were review by an expert (supervisor) the items were administered in a survey as pilot study. The items were evaluated by means of an exploratory factor analysis in assessing the latent variable and those that revealed low loadings as well as those that exhibited cross loadings were eliminated in order to establish the reliability of the scales and validated for convergent and discriminant validity. The results of these assessments are reported in chapter 6.

5.7 Measurement Process

In this section the various question items that make up the variable are listed. In this study there is only one dependent variable; buyer opportunism(OPPOR), four independent variables ; relationship duration (REDURA), buyer control (BUYCON), supplier satisfaction (SATIS), and transaction-specific supplier development (SUDEV). And three control variables namely sales volume (SALESVOL), relative power (REPOWER) and trust (TRUST).

5.7.1 The Dependent Variable

In this study Buyer Opportunism (OPPOR) is used as the dependent variable. To measure perceived buyer's opportunism, the approach used in studies by Gundlach et al. (1995); Skarmeas et al (2002) and Provan and Skinner, (1989) were used as a guide. The construct consist of four items and are negatively worded and anchored from 1 strongly agree to 7 strongly disagree.

OPPOR 1 This purchasing clerk has always not provided me with a completely truthful picture of my sales transactions with their company

OPPOR 2 The purchasing clerk was always insincere about the correct weighting of my cocoa

OPPOR 3 This buying company always breaches formal or informal agreements concerning timely payment of cash bonuses to their benefits

OPPOR 4 This purchasing clerk has benefited from our relationship to my detriment by undervaluing the weights of cocoa purchased from my farm.

OPPOR 5 Sometimes this purchasing clerk lies to me about the quality of my cocoa beans in order to protect their interest

OPPOR 6 This purchasing clerk has sometimes promised to correct errors concerning my sales transactions without actually doing that later.

OPPOR 7 Sometimes this purchasing clerk alters the weighing scale slightly in order to get what they want

5.7.2 The Independent Variables

Relationship duration (RUDURA)

Relationship duration measured in years represents the number of years that a supplier has been selling to the buyer. This variable was adapted from Heide and Miner (1992). The natural logarithm of the REDURA is used and it is measured by the single open question: How long have you been selling to this company?

Buyer control (BUYCON)

Buyer control (BUYCON) items were adapted from Buvik and Halskau (2001).

BUYCON1 This buyer determines all aspect of quality assurance such as grading.

BUYCON2 This buyer makes sure the quality of the cocoa I sell is ok before taking possession

BUYCON3 This buyer takes control of the product for quality inspection

BUYCON4 This buyer ensures that the quality test is passed

BUYCON5 This buyer has more control of the quality of cocoa I sell to their company

BUYCON6 This buyer always rejects poor quality cocoa sold to their company

Supplier satisfaction (SATIS)

Supplier satisfaction (SATIS) was adapted from Geyskens and Steenkamp (2000); Skinner et al. (1992); Crosby et al (1990) and Benton and Maloni (2005). The variables were 1 to 7 point scales anchored by “strongly disagree” and “strongly agree”.

SATIS1 My relationship with this buying company has been very beneficial for my farm business

SATIS2 My relationship with this buying company is very attractive with respect to prompt payment of cash bonuses

SATIS3 I am very pleased with my decision to sell to this buyer due to the financial benefits the company provides for my farm business

SATIS4 I would recommend that other farmers sell their products to this buying company

SATIS5 I am very satisfied at the price at which I sell my cocoa to this buying company

SATIS6 I have a favorable relationship with this buying company personnel

SATIS7 I am satisfied with dealing with this buying company

SATIS8 Would continue selling to this buying company always because of the good personal relationship I have with their staff

SATIS9 This buying company is good to do business with

SATIS10 I am pleased with dealing with this buying company always

Supplier development (SUDEV)

Supplier development (SUDEV) is measured by using a 7 point Likert scale where 1 represents strongly disagree and 7 represent strongly agree, and is operationalized by the following four items adapted from Krause (1999) and Ghijsen et al. (2009).

SUDEV1 This buying company personnel makes visits to help me improve on my performance

SUDEV2 This buying company personnel frequently invites me to discuss issues for performance improvement with respect to grading of my cocoa beans

SUDEV3 This buying company recognizes my farm business for achievements/performance in the form of awards

SUDEV4 This buying company provides my farm business with training/education

SUDEV5 This buying company provides my farm business with equipment or tools for improvement

SUDEV6 This buying company provides my farm business with credit/capital

5.7.3 Control Variables

In addition to the dependent and independent variables, three control variables: annual sales volume (SALEVOL) Relative power (REPOWER) and trust (TRUST) were included in the model.

Annual sales volume (SALEVOL)

The annual sales volume (SALEVOL) is measured as a single item scale adapted from a previous research by Heide and Miner (1992). The sale volume was measured by the natural logarithm of the total weight in bags of the produce sold to the buying firm and is measured by a single question:

How much in terms of weight were you able to sell to this company during the last crop season…….. tons……..kg

Relative power (REPOWER)

Relative power is operationalized by the following two items adapted from Joshi and Stump (1999) and Andersen and Weitz (1989).

REPOWER1 With respect to sales volume during the last twelve months, my farm business sales to this buying company as compared to what they buy from all other farmers is much smaller?

REPOWER2 How large do you perceive cash bonuses paid by this buying company to your farm business as compared to what were paid to all other farmers?

REPOWER3 How large do you perceive your dependency on this particular buying company compared to other buying companies within this district?

REPOWER4 How much will it cost you in terms of transportation fare if you want to replace this buying company for another one in a new location?

Trust (TRUST)

Trust (TRUST) is measure by a using a 7 point Likert scale where1 represents strongly disagree and 7 represent strongly agree, and is operationalized by the following seven items adapted from Moorman et al (1992); Morgan and Hunt (1994) and Ganesan (1994).

TRUST1 I trust this purchasing clerk that I deal with because he ensures that my cocoa sales are weighed accurately

TRUST2 I trust this purchasing clerk to sometimes do things on my behalf which I can't do myself like ensuring that correct entries of my sales are done in their books

TRUST3 In our relationship this purchasing clerk can always be trusted at all times to be very truthful about my sales transactions with their company

TRUST4 In our relationship this purchasing clerk has high integrity concerning my business dealings with them

TRUST5 In our relationship this purchasing clerk can be counted on to do what is right always

TRUST6 This purchasing clerk is like a friend because of his truthfulness

TRUST7 This purchasing clerk cares for me always by his high levels of accurate record keeping of my sales transactions with their company in my passbook

5.8 Summary

In this chapter the research methodology applied in the study was discussed. The philosophical position and the research design used in this study were discussed. The empirical setting including the geographical location, as well as the data collection methods employed were also presented. Also presented is the measurement of the variables and their question items. In the next chapter the measurement assessment and data validation will be presented. It is worthy of mention that the items that were used in the operationalization of the constructs were formulated and/or adapted scales by Richard Glavee-Geo under supervision of Professor Arnt Buvik (Glavee-Geo, 2012; Glavee-Geo and Buvik, 2012a; 2012b).

CHAPTER 6

MEASUREMENTS ASSESSMENT AND DATA VALIDATION

6.1 Introduction

In the preceding chapter, the research methodology of the study and the measurement of variables were discussed. In this chapter an explanation of the preliminary data assessment is presented. The chapter discusses data assessment in terms of data screening and cleaning; descriptive statistics and reliability of the various scale items as well as their factor loadings. The chapter ends with a discussion on the validation process of the various constructs/factors that forms the basis of data analysis in the next chapter.

6.2 Data Screening and Cleaning

According to Pallant (2007; p 43) before data is analyzed it is advised that the data is checked for errors since this may affect the results of the analysis. The process of screening the data involves:

Step 1: Checking for errors: By checking for values out of range within the possible scores. Such as mistakes made in data entering.

Step 2: Finding and correcting the error in the data file: By locating exactly where the error can be found in the data file and rectifying or deleting the value (Pallant, 2007, p 43).

In accordance with the recommendation, in this study the data set was checked for errors such as outliners but this was found to be non-existent.

6.3 Descriptive Statistics

According to Pallant (2007) it is advisable that data is initially subjected to a descriptive analysis before it is validated or use for any analysis. The statistics obtained can be used as a characterization of the sample, it can also be used to check whether any of the variables undermine the assumption of the intended statistical technique to be use in answering the research questions and also use in particular research questions. Descriptive statistic is defined by Gaur and Guar (2006) as numerical and graphical method used in the summary of data. They gave three numerical methods for descriptive statistic as the: Measurement of central tendency (mean, median, and mode) and normality; Measurement of variability (range and variance) and the Measurement of skewness and kurtosis (Gaur

and Guar, 2006). In this regard, descriptive statistic was run for the variables. The items were checked for normality (Appendix 2a, 2b and 2c) and they were found to be acceptable in meeting the various assumptions of normality. This is important according to Hair et al. (1998) because when it is not normal it will compromise the results of the correlation and the factor analysis. The result of the descriptive statistics for all the variables in the research model and the sample characteristics of the study are presented in Table 6.1 and 6.2 shown below. It includes the minimum, maximum, mean and the standard deviations of the variables. However, the measure of normality is shown in the Appendix 2a, 2b and 2c.

Table 6.1 Descriptive Statistics

	N	**Min.**	**Max.**	**Mean**	**SD**
Sales volume	73	4.14	8.02	6.01	7.83
Buyer control	73	3.00	7.00	6.05	.76
Trust	73	1.43	7.00	5.57	1.43
Relative power	73	1.00	7.00	5.53	1.39
Transaction specific supplier development	73	1.50	6.75	4.54	1.46
Buyer opportunism	73	1.00	7.00	3.78	1.46
Relationship duration	73	-1.40	1.60	.00	.81
Supplier satisfaction	73	-3.30	1.20	.00	1.04
Supplier satisfaction *relationship duration	73	-4.12	3.11	-.06	.86

Table 6.2 Characteristics of the sample

	N	**Min.**	**Max.**	**Mean**	**SD**
Relationship duration (years)	73	2.00	30.00	8.39	7.13
Annual sales volume (Kg)	73	63.00	3050.00	555.31	525.25
Farm size (Ha)	73	1.00	7.00	2.2	1.57

6.4 Scale Reliability

In this section the reliability of the scales used in the study is discussed. Reliability is referred to by Kerlinger (1986; p.404-405) cited in Agle and Kelly (2001) as the accuracy or precision of a measuring instrument….. Synonyms to reliability are: dependability, stability, consistency, predictability and accuracy". Thus it seeks to answer the questions does the measurement represent the true properties; should the research be conducted by new researcher with new variables will the same results be obtained? Agle and Kelly (2001).

Peter (1979) cited in Mentzer and Flint (1997) identified four types of reliability depending on the main intents of the research. It could either be test-retest; mostly used for the development of psychological constructs; split half reliability, where the sample is randomly divided into two half and the results from the two groups are correlated; internal consistency which is the commonest method used based in the determination of Cronbach Alpha; and inter-judge, commonly used in case study based research (Kimberin and Almut, 2008; Mentzer and Flint 1997).

The scale reliability for each of the latent construct was assessed. This was done by first undertaking an exploratory factor analysis (EFA). Exploratory factor analysis is one of the two types of factor analysis and the other type is confirmatory factor analysis. According to Pallant (2007; p179) factor analysis refers to data reduction technique whereby large sets of data are taken and a way is found for reducing that data into a smaller set of factors or components. She explained several different approaches used in the factor extraction, namely the principal component model; the principal factors; image factoring; maximum likelihood factoring; alpha factoring; unweighted least squares; and generalized least squares. In this study the principal component approach was adopted due to the fact that it is the commonest method use for factor extraction (Pallant, 2007).

Tables 6.3 below shows the results of the Varimax rotated factor analysis carried out in this study. Six factors were identified namely factor1 Buyer opportunism, factor2 represents buyer control (BUYCON), factor3 is trust (TRUST), factor4 is supplier satisfaction (SATIS), the factor5 is relative power (REPOWER) and factor6 is transaction-specific supplier development (SUDEV). Items with factor loadings less than .40

(OPPOR1, OPPOR3, OPPOR7, REPOWER3, REPOWER4, SUDEV 5 and SUDEV6) were deleted and all cross loading items were also deleted. The result shows all the factor loading were between .519 and .866 (Table 6.3). High factor loading has been recognized to be a good indicator of high convergent validity (Hair et al, 1998).

Table 6.3 Factor analysis

Items	Component					
	1	2	3	4	5	6
OPPOR 2	**-.653**					
OPPOR 4	**-.810**					
OPPOR 5	**-.755**					
OPPOR 6	**-.646**					
BUYCON 1		**.677**				
BUYCON 2		**.730**				
BUYCON 3		**.757**				
BUYCON 4		**.667**				
BUYCON 5		**.625**				
BUYCON 6		**.788**				
TRUST 1			**.794**			
TRUST 2			**.795**			
TRUST 3			**.798**			
TRUST 4			**.850**			
TRUST 5			**.866**			
TRUST 6			**.823**			
TRUST 7			**.822**			
SATIS 1				**.525**		
SATIS 2				**.519**		
SATIS 3				**.721**		
SATIS 4				**.666**		
SATIS 5				**.575**		
SATIS 6				**.569**		
SATIS 7				**.583**		
SATIS 8				**.802**		
SATIS 9				**.708**		
SATIS 10				**.655**		
REPOWER 1					**.914**	
REPOWER 2					**.798**	
SUDEV 1						**.698**
SUDEV 2						**.748**
SUDEV 3						**.720**
SUDEV 4						**.619**

Rotated Component Matrix Extracted Principal Component Analysis.

Rotated Method: Varimax with Kaiser Normalization.

Rotation converged in 8 iterations

The Cronbach alpha of each factor is used in assessing the internal consistency in this study. This is due to the fact that it is a very important indicator of reliability and without it the other tests will have no meaning (Mentzer and Flint, 1997). The Cronbach alpha is used to compare how well each of the questions in a questionnaire correlates with the other questions measuring the construct. It is seen as an average correlation of one question to the rest in the group. A low Cronbach alpha shows that the sample poorly captures the construct used for measurement (Nunnally, 1967). It is therefore advised that the construct should have at least three question items to establish reliability since the greater the number of items the higher the Cronbach alpha will be and this will improve the measurements reliability and precision (Mentzer and Flint, 1997). The coefficient of Cronbach alphas of the constructs shown in Table 6.4 below indicates that all the measurement items forming a construct/factor have internal consistent reliability greater than .70 as recommended by Nunnally (1967) with buyer opportunism (OPPOR) having the least with $\alpha = .67$.

Table 6.4 Reliability

Construct	**Items**	**No. of Items**	**Reliability (Cronbach alpha) α**
Buyer opportunism	OPPOR 2, 4,5 6	4	.67
Buyer control	BUYCON 1,2,3,4,5,6	6	.84
Trust	TRUST 1,2,3,4,5,6,7	7	.95
Supplier satisfaction	SATIS 1,2,3,4,5,6,7,8,9.10	10	.89
Relative power	REPOWER 1,2	2	.80
Transaction-specific supplier development	SUDEV 1,2,3,4	4	.71

6.5 Validity

Validity has been explained to refer to the degree that what we think we have measured has been measured by our measures. They deal with the degree that our measurement adequately represents our constructs theoretically (Kerlinger, 1986). Agle

and Kelley (2001) classified validity into different type's notably content validity, face validity, criterion- related validity, convergent validity, discriminant validity and constructs validity.

Content validity and Face validity have been considered as the same by some authors (Buvik 2011; Mentzer and Flint, 1997; Ping Jr., 2004). It refers to the validation by expert in a field of study on measures they have encountered (Agle and Kelley, 2001). According to Churchill (1979) if a sample's item "looks right" then face or content validity has been achieved. It shows the completeness with which the area of the characteristic is captured by the measure (Buvik, 2011). Criterion validity also known as predictive validity refers to the validity that is based on some measures criteria which is supposed to measure the item been studied (Agle and Kelley, 2001). It shows the usefulness of the measure as a predictor of some other characteristic or character (Buvik, 2011). Thus it provide evidence on how well a developed measure correlates with other measures of a similar construct or the same construct Kimberlin and Almut (2008).

6.5.1 Construct Validity

Construct validity involves the use of different types of validity to address the issue of how well we define and measure the theoretical issues in our study (Mentzer and Flint 1997). Construct Validity refers to the degree to which a measured construct is equal to the construct that is been measured (Agle and Kelley, 2001).

6.5.2 Convergent validity

In this study convergent validity and discriminant validity were considered. This is due to the fact that the assessment of construct validity is mostly supported by convergent validity and discriminant validity Dunn et al. (1994). Convergent validity refers to the degree to which there is agreement between different data sources and measurement methods on a construct been assessed. The existence of such agreement makes the construct to be considered valid (Agle and Kelley 2001).

A confirmatory factor analysis (CFA) based on AMOS18 (Arbuckle, 2009) was used to assess the convergent validity of the constructs. A one factor validation was used for the items in each construct. Relationship duration (REDURA) and Sales volume (SALESVOL) are single item measures for this reason they were not assessed for validity as they are assumed to fully measure the construct they are supposed to measure. There was also no calculation for fit estimate for Relative Power (REPOWER), although a multi

item since a two item scale would give a trivial fit (Buvik, 2002). The model was evaluated using different goodness of fit indicators such as: the Chi square test results, Root Mean Square Residual (RMR), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Error of Approximation (RMSEA).

The results from the fit statistics of the various constructs in the model are shown in Table 6.5 below. The fit statistic showed trust (TRUST) and buyer control (BUYCON) gave adequate fit with high significant loading found to give good convergent validity. Some of the items of the other constructs had insignificant factor loadings though the overall model fit indicates adequate fit. For example buyer opportunism OPPOR ($\chi 2_{(2)}$ =4.28; P=0.12; GFI=0.97; CFI=0.97; TLI=0.90; RMSEA=0.13 RMR=0.23) had adequate fit though an item Oppor4 had an insignificant loading (λ_{12}=.13 with t-value 1.01). Transaction-specific supplier development SUDEV ($\chi 2_{(2)}$ =15.93; P=0.00; GFI=0.92; CFI=0.83; TLI=0.50; RMSEA=0.31 RMR=0.47). These did not meet the cutoff criteria recommended by Schreiber et al[1]. (2006).

[1] The recommended cutoff criteria for fit indexes according to Schreiber et al (2006) are: Chi square test results, ratio of $\chi 2$ to d.f $\leq$ 2or 3 ; Root Mean Square Residual (RMR), the smaller the better 0 indicates a perfect fit; Goodness of Fit Index (GFI), $\geq$ .95; Comparative Fit Index (CFI), $\geq$ .95 ; Tucker-Lewis Index (TLI) $\geq$ .95 but can be 0 > TLI > 1 for acceptance and Root Mean Error of Approximation (RMSEA) < .06 to .08 with confidence interval.

Table 6.5 Assessment of Construct Validity

Scale	**Standardized loading (t-values)**	**Fit indices**	**Reliability Cronbach alpha**
OPPOR (4 items) Buyer Opportunism	λ_{11}=0.50 [a] λ_{12}=0.13 (1.01) λ_{13}=0.86 (7.03) λ_{14}=0.84(6.92)	$\chi 2_{(2)}$=4.28 P=0.12 GFI=0.97 CFI=0.97 TLI=0.90 RMSEA=0.13 RMR=0.23	0.67
BUYCON (6 items) Buyer Control	λ_{21}=0.70[a] λ_{22}=0.70(4.90) λ_{23}=0.89 (4,96) λ_{24}=0.68 (4.80) λ_{25}=0.51 (3.86) λ_{26}=0.61 (4.45)	$\chi 2_{(7)}$=9.99 P=0.19 GFI=0.96 CFI=0.98 TLI=0.96 RMSEA=.08 RMR=0.05	0.84
SATIS (10 items) Supplier Satisfaction	λ_{31}=0.25[a] λ_{32}=0.48 (1.93) λ_{33}=0.58 (2.01) λ_{34}=0.68 (2.06) λ_{35}=0.51(1.96) λ_{36}=0.67(2.41) λ_{37}=0.84 (2.11) λ_{38}=0.74(2.08) λ_{39}=0.89(2,12) λ_{310}=0.92 (2,13)	$\chi 2_{(30)}$=43,73 P=0.05 GFI=0.88 CFI=0.97 TLI=0.950 RMSEA=0.08 RMR=0.06	0.89
SUDEV (4 items) Transaction specific Supplier Development	λ_{41}=1.09[a] λ_{42}=0.65(3.71) λ_{43}=0.30 (2.30) λ_{44}=0.37 (2.67)	$\chi 2_{(2)}$=15.93 P=0.00 GFI=0.92 CFI=0.83 TLI=0.50 RMSEA=0.31 RMR=0.47	0.71
TRUST (7 items) Trust	λ_{51}=0.79[a] λ_{52}=0.83(7.84) λ_{53}=0.84(7.97) λ_{54}=0.87(8.34) λ_{55}=0.87(8.37) λ_{56}=0.82 (7.78) λ_{57}=0.85(8.12)	$\chi 2_{(12)}$=10.34 P=0.50 GFI=0.96 CFI=1.00 TLI=1.01 RMSEA=0.00 RMR=0.06	0.95

[a] Standardized estimated factor loading

6.5.3 Discriminant Validity

Discriminant Validity according to Fornell and Larker (1989) refers to the degree to which a latent variable discriminates from other latent variables. It is the ability of an individual to able to differentiate the construct been studied from similar ones (Agle and Kelley 2001) so that the measure does not correlate highly to others that it is supposed to be different from. When assessing discriminant validity the latent variable should be able to account for more variance in the variable been observed to be related to it than a) the measurement error or similar unmeasured influences; or b) other construct existing within the conceptual framework. The absence of these renders the validity of the indicators and constructs questionable (Farrell et al, 2008; Fornell and Larcker, 1981). Discriminant validity was assessed using the Average Variance Extracted versus Shared Variance Test method presented by Fornell and Larcker (1981). Here the average variance extracted (AVE) of the construct is compared with the shared variance amongst the constructs. Discriminant validity is said to be achieved if the AVE for each construct is found to be greater than the shared variance (i.e., the squared correlation) between the construct (ibid). The resultant estimates are shown in Table 6.6 below.

Table 6.6 Discriminant validity: squared inter construct correlation (R^2) and variance extracted estimates (AVE)

Factor	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1Buyer opportunism	1	.00	.00	.00	.14	.02	.02	.14	.06
2Relationship duration		1	.15	.01	.00	.00	.03	.03	.01
3 Sales volume			1	.00	.00	.00	.00	.00	.00
4Buyer control				1	.14	.12	.00	.07	.00
5 Trust					1	.53	.00	.19	.03
6Supplier satisfaction						1	.00	.10	.00
7 Relative power							1	.02	.02
8Supplier development								1	.00
9Supplier satisfaction*Relationship duration									1
AVE	.28	-	-	.30	.50	.28	-	.41	-

Based on the above method the results of the AVE supports discriminant validity for the constructs OPPOR, BUYCON and SUDEV who's AVE were greater than their shared variance. The construct TRUST and SATIS had shared variance (.53) greater than their respective AVE (.50; .28) thus discriminant validity was not supported for them. It is possible that for a small sample size (n=73) as used in this study and the stringent method of assessing discriminant validity according to Fornell and Larcker (1981) and Farrell et al (2008) as applied in this study might not have been applicable or appropriate.

6.6 Summary

In this chapter the preliminary assessment of the data was presented. This chapter discussed data screening and cleaning, descriptive statistics and sample characteristics. The reliability and validity of the measurements of variables used in the study were also discussed. The scale reliability was assessed using the Cronbach's alpha and the validity was assessed by the means of the various items factor loadings and Average Variance Extracted (AVE). In the next chapter the data is analyzed and the hypotheses tested based on the theory.

CHAPTER 7
DATA ANALYSIS AND EMPIRICAL FINDINGS

7.1 Introduction

In the previous chapter the data screening and cleaning; the descriptive statistics; reliability and the validity of the various scale items were discussed. In this chapter we present the model estimation, estimation results, empirical testing of hypotheses and results found in the study.

7.2 Regression Model

The regression model that was applied in this study used the Ordinal Least Square (OLS) estimation technique. All the variables were included in the regression model. The model looks as follows:

$$OPPOR = b_0 + b_1 REDURA + b_2 SALESVOL + b_3 BUYCON + b_4 TRUST + b_5 SATIS + b_6 REPOWER + b_7 SUDEV + b_8 SATIS*REDURA + \varepsilon \quad \text{------- (1)}$$

In order to assess the interaction term included in the model, a new model was derived by taking a partial derivative of BUYCON with respect to REDURA to give:

$$\delta OPPOR / \delta REDURA = b_1 + b_8 (SATIS) \quad \text{------ (2)}$$

Where:

Dependent Variable:

OPPOR	Buyer opportunism

Independent Variables:

REDURA	Relationship Duration (The natural logarithm of relationship duration)
BUYCON	Buyer Control
SATIS	Supplier Satisfaction
SUDEV	Transaction Specific Supplier Development

Control variables:

SALEVOL	Sales Volume (The natural logarithm of annual sales)
TRUST	Trust
REPOWER	Relative Power

Interaction effect:

REDURA*SATIS	Relationship duration*Supplier satisfaction

7.3 Estimation results

7.3.1 Correlation matrix

The correlation matrix presented in Table 7.1 shows results from the correlation analysis (Appendix 4) and the corresponding means and standard deviations. The obtained result shows trust (TRUST), supplier satisfaction (SATIS), transaction-specific supplier development (SUDEV) and the interaction effect are significantly related to buyer opportunism (OPPOR).

Table 7.1 Correlation matrix

Factor	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1 OPPOR	1	-.08	.07	.06	-.37**	-.39**	-.15	-.37**	-.24*
2 REDURA		1	.39**	.09	.02	-.07	-.17	-.15	-.09
3 SALESVOL			1	.03	-.09	-.09	-.05	-.09	-.03
4 BUYCON				1	.38**	.34**	-.04	-.26*	.09
5 TRUST					1	-.73**	-.06	-.44**	-.16
6 SATIS						1	.01	-.32**	.07
7 REPOWER							1	.13	.14
8 SUDEV								1	.04
9 SATIS*REDURA									1
Mean	3.78	0.00	6.00	6.05	5.57	0.00	5.53	4.54	-.06
SD	1.46	.81	.78	.76	1.43	1.04	1.39	1.46	.86

** Correlation significant at the.01level (2-tail)
*Correlation significant at the .05 level (2-tail)
Values for REDURA and SATIS are mean centered

7.3.2 Regression analysis

Results from the hierarchical multiple regression analysis technique is shown in Table 7.2 and 7.3 below. The analysis in table 7.2 includes both the independent variables

and the control variables (Model 1) whilst the analysis in table 7.3 includes in addition to the independent variables and the control variables the interaction term (Model 2). Tables 7.2 and 7.3 also include values of Tolerance and the Variance inflation factor (VIF) which was used in assessing multicollinearity. The result indicates there was no high intercorrelations between the independent variables since all the tolerance value were greater than .10. A VIF value of 10 or above is also an indicator of the existence of multicollinearity (Pallant, 2007). The individual VIF also indicates the variables in this study are not highly correlated.

Table 7.2 Regression analysis: Dependent variable Buyer opportunism

Hierarchical Regression Model	Independent variables	Unstandardized coefficients	t-value	Tolerance (VIF)
Model 1	Constant b_0	5.02	2.66***	
	REDURA b_1	-.35	-1.66**	.76 (1.32)
	SALESVOL b_2	.13	.61	.83 (1.21)
	BUYCON b_3	.59	2.76***	.81 (1.23)
	TRUST b_4	-.10	-.56	.40 (2.53)
R^2 =.33	SATIS b_5	-.47	-2.22**	.45 (2.23)
	REPOWER b_6	-.05	-.48	.92 (1.09)
	SUDEV b_7	-.31	-2.67***	.74 (1.35)

R^2_{adj}=.26 F (7, 65) = 4.54 p<.001 Values for REDURA and SATIS are mean centered scores
**p<.05 t- values greater than 1.64 are significant at 0.05 one tail
***p<.01 t-values greater than 2.33 are significant at 0.01 one tail

An overall assessment of the goodness of fit model 1 show model fit based on the t- value from the ANOVA in (appendix 5a) and this was found to be statistically significant at p<.001, (t = 2.66, p<.001, R^2= 0.33 R^2_{adj}=0.26, F= 4.54). An interpretation of the R^2_{adj}=0.26 means that 26% of the variance in the buyer opportunism (OPPOR) construct is explained by the independent variables in the model whilst the remaining percent of the explanation is done by other non-included variables. The coefficient of multiple determination known as R^2 refers to the degree of variation of the dependent variable explained by the covariance of the independent variables (Churchill and Brown, 2004). Thus R^2=0.33 means 33% of the variation in the dependent variable buyer opportunism (OPPOR) is explained by the variation in the independent variables relationship duration (REDURA), supplier satisfaction (SATIS), buyer control (BUYCON) and transaction specific supplier development (SUDEV).

Table 7.3 Regression analysis: Dependent variable Buyer opportunism

Hierarchical Regression Model	Independent variables	Unstandardized coefficients	t-value	Tolerance (VIF)
Model 2	Constant b_0	4.08	2.25**	
	REDURA b_1	-.41	-2.03**	.75 (1.33)
	SALESVOL b_2	.13	.66	.83 (1.21)
	BUYCON b_3	.69	3.33***	.80 (1.26)
	TRUST b_4	-.26	-1.55*	.35 (2.85)
R^2 =.41	SATIS b_5	-.32	-1.51*	.42 (2.39)
	REPOWER b_6	.01	.06	.89 (1.13)
	SUDEV b_7	-.29	-2.61***	.74 (1.35)
	SATIS*REDURA b_8	-.52	-2.95***	.84 (1.19)

R^2_{adj}=.34 F (8, 64) = 5.53 p<.001 Values for REDURA and SATIS are mean centered scores
*p<.10 t- values greater than 1.35 are significant at 0.10 one tail
**p<.05 t- values greater than 1.64 are significant at 0.05 one tail
***p<.01 t-values greater than 2.33 are significant at 0.01 one tail

An overall assessment of model 2 shows the model is significant based on the t-value found in the ANOVA output in (Appendix 5b) at p<.001, (t = 2.25, p<.05, R^2= 0.41 R^2_{adj}=0.34, F= 5.53). A comparison of the two models shows that R^2 =0.33 for model 1(consisting of control variables and main effects) increased to R^2 =0.41 for model 2 (with the addition of interaction effect SATIS* REDURA). The increment in the change in R^2 by introducing the interaction effect was 0.08. An F-test was conducted to evaluate the significance of its F-value (Buvik, 2002; Jaccard and Turrisi, 2003). This was 8.69 (F(1, 64)=8.69 p < 0.05) i.e. 8.69 > 3.84 so interactive model 2 is significant.

From the regression model 2 (Table 7.3) the estimates were extracted and inserted into equation 1 to give:

OPPOR = 4.08 – 0.41REDURA + 0.13SALESVOL + 0.69BUYCON – 0.26TRUST – 0.32SATIS + 0.01REPOWER - 0.29 SUDEV – 0.52SATIS * REDURA+ ε

The regression model (Table 7.3) shows the association between the dependent variable, buyer opportunism (OPPOR); the independent variables relationship duration (REDURA), buyer control (BUYCON) supplier satisfaction (SATIS), transaction specific supplier development (SUDEV); the control variables sales volume (SALESVOL), relative power (REPOWER) and trust (TRUST) and the interaction effect of relationship duration and satisfaction (REDURA*SATIS).

The β coefficient is used in interpreting the regression model. The β coefficient of

the various independent variables (predictor variables) is interpreted to mean the average change in the particular predictor variable when all other predictor variables are held constant.

The statistics from table 7.3 shows that relationship duration (REDURA) is negatively associated with buyer opportunism (OPPOR) at the significant level of $p<.05$; with $b_1 = -.41$ and $t= -2.03$. This means that as the level of relationship duration increase by one unit whilst the other variables remain unchanged buyer opportunism decrease by -2.03units. The estimation shows the relationship is significant.

The path coefficients of sales volume (SALESVOL) $b_2=.13$; $t=.66$ and relative power (REPOWER) with $b_6=.01$; $t=.06$ are both positively associated with buyer opportunism (OPPOR) but these relationships are not significant.

Buyer control (BUYCON) is positively associated with buyer opportunism (OPPOR) at the significant level of $p<.01$; with $b_3 = .69$ and $t= 3.33$. This means that if the level of buyer control increase by one unit, all other variables held constant, buyer opportunism will increase by 3.33 units. This relationship is significantly enforced.

The path coefficient of trust (TRUST) $b_4=-.26$; $t=-1.55$ is negatively associated with buyer opportunism (OPPOR) but this relationship is only significant at the level $p<.10$. Supplier satisfaction (SATIS) is also negatively associated with buyer opportunism (OPPOR) with $b_5 = -.32$ and $t=-1.51$. Meaning, an increase in the level of supplier satisfaction by one unit, whiles the other variables remain unchanged, buyer opportunism (OPPOR) will decrease by -.32. This relationship is also only significant at the level of $p<.10$.

Transaction-specific supplier development (SEDEV) is also negatively associated with buyer opportunism (OPPOR) with $b_7 = -.29$; and $t=-2.61$. This means that, as the level of transaction-specific supplier development increase by one unit, whiles the other variables stay the same buyer opportunism (OPPOR) will decrease by -.29. This relationship is also very significant at the level of $p<.01$.

The interaction effect of relationship duration and satisfaction (REDURA*SATIS) is shown by first taking the partial derivative of buyer opportunism (OPPOR) with respect to the effect of relationship duration (REDURA). The relationship derived is presented as:

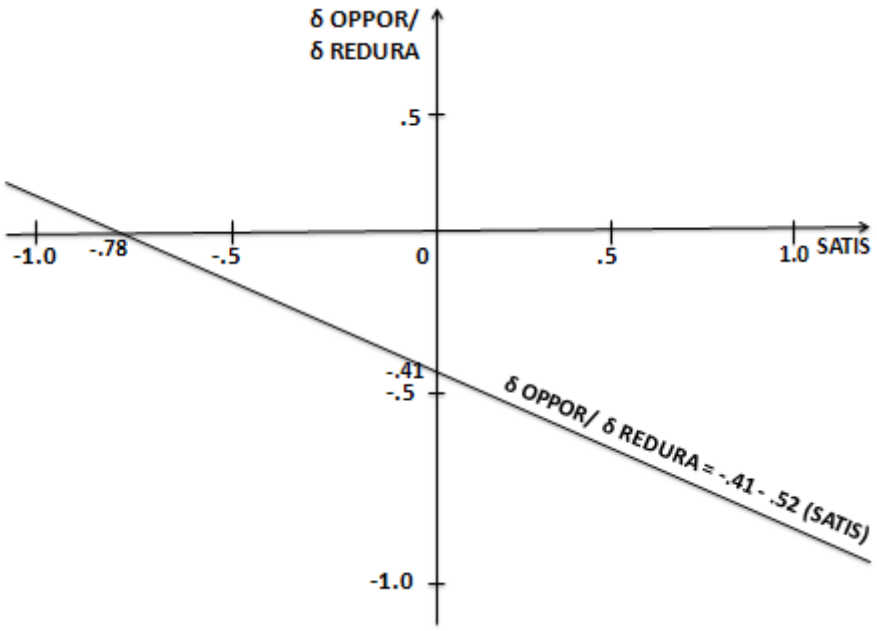
$$\delta \text{ OPPOR}/ \delta \text{ REDURA} = \beta_1 + \beta_8 \text{ (SATIS)}$$

By inserting the values from the regression output we obtain:

δ OPPOR / δ REDURA = -0.41- 0.52 (SATIS)

The interaction effect of relationship duration and buyer opportunism is shown graphically in Figure 7.1 below. It shows the plot of the partial derivative of buyer opportunism (OPPOR) with respect to relationship duration (REDURA) over the range of supplier satisfaction (SATIS). For low levels of SATIS increases in REDURA have a positive effect on buyer opportunism (OPPOR). Specifically, REDURA has a positive effect on OPPOR in the SATIS range below -.78 and a negative effect when SATIS is greater than -.78.

Figure 7.1 The effect of relationship duration (REDURA) on buyer opportunism (OPPOR) for different levels of supplier satisfaction



7.4 Test of hypotheses

In Chapter 4, four hypotheses were presented. This was tested by using the statistical results from the SPSS regression estimates. The four hypotheses are:

$H_{1:}$ There is a positive association between buyer control and buyer opportunism

H_2: There is a negative association between opportunism and supplier satisfaction.

H_3: There is a negative association between transaction-specific supplier

development and buyer opportunism.

In addition to these main effects one other hypothesis was hypothesized. The variables for the main effect were mean centered as recommended by Cronbach (1987) before they were used for the testing in order to prevent the problem of multicollinearity. The variables mean centered are Relationship duration (REDURA) and satisfaction (SATIS). The hypothesized interaction effect is:

> H_4: Under conditions of high supplier satisfaction, there is a stronger negative association between relationship duration and buyer opportunism than under low/moderate supplier satisfaction.

Hypothesis 1

A look at the statistics (b_3= .69, t=3.33, p<.01) shows a positive association between buyer opportunism (OPPOR) and buyer control (BUYCON) as suggested (Table 7.3). This shows that Hypothesis 1 is supported by the estimates of the statistical regression and it is significant.

Hypothesis 2

Hypothesis 2 is supported by the statistical results from the regression estimates (b_5 = -.32, t=-1.51, p<.10). A negative association was hypothesized between buyer opportunism (OPPOR) and supplier satisfaction (SATIS) and this was supported.

Hypothesis 3

The statistical results presented support the hypothesis. A significant negative association is observed between buyer opportunism (OPPOR) and transaction-specific supplier development (SUDEV) as hypothesized. The estimate is summarized as (b_7= -.29, t=-2.61, p<.01).

Hypothesis 4

The result of the regression analysis in model 2 supports this hypothesis. A look at the model shows it is significant at F = 4.54 at p<.001. From the equation of the partial derivative of buyer opportunism with respect to relationship duration, the coefficient of the interaction term b_8 = -.52 is greater than 0 and the t-value of -2.95 shows that the interaction is significant at p<.01.

7.5 Summary of hypotheses test

Table 7.4 below presents the summary of the hypothesized effects and the findings. The results show that all four hypotheses were supported significantly.

Table 7.4 Summary result of hypotheses

Hypotheses	**Association between variables**	**Hypothesized effect**	**Findings**
H1	Buyer control and Buyer opportunism	+***	Supported
H2	Supplier satisfaction and Buyer opportunism	-*	Supported
H3	Transaction-specific supplier development and Buyer opportunism.	-***	Supported
H4	Under conditions of high supplier satisfaction, there is a stronger negative association between relationship duration and buyer opportunism than under low supplier satisfaction	-***	Supported

*p<.10 t- values greater than 1.35 are significant at 0.10 one tail

**p<.05 t- values greater than 1.64 are significant at 0.05 one tail

***p<.01 t-values greater than 2.33 are significant at 0.01 one tail

7.6 Summary

The chapter discussed the analysis of the empirical data using multiple regression technique. The hypotheses were tested based on the results of the ordinary least square estimation technique (OLS). The findings show that all four hypotheses were supported significantly. In the final chapter the statistical results are further discussed and its implication for theory, limitation and further research are discussed.

CHAPTER 8
SUMMARY, DISCUSSION, CONCLUSION, IMPLICATION AND LIMITATIONS

8.1 Introduction

In the previous chapter the empirical tests and results found in the study were discussed. That included the estimation of the model; the estimation result and the testing of the hypotheses in the study. This chapter presents the conclusion of the study, which begins with a summary of the study, followed by the discussion, the implications and suggestions for further research, as well as the limitations of the study.

8.2 Summary of findings

The aim of this study was to find out the key factors that influence buyer opportunism and also to elucidate on the key issues that can be taken into consideration for policy and management practice especially within the cocoa sector of Ghana using the relationship between a buyer and supplier as the unit of analysis. The second purpose is to contribute to theory as most studies on opportunism has been done from the perspective of buyers. This study takes a different approach by integrating transaction cost and relational contract theory and using the relationship between a buyer and supplier as the unit of analysis.

The result obtained from the correlation matrix shows trust, supplier satisfaction, transaction specific supplier development and the interaction effect are significantly related to buyer opportunism. An overall assessment of model 2 shows the model is significant based on the t-value found in the ANOVA output in (Appendix 5b) at t=2.25, ($F(8, 64) = 4.54$, $p<.05$, $R^2= 0.41$, $R^2_{adj}=0.34$, $F= 5.53$). Thus $R^2=0.41$ means 41% of the variation in the dependent variable buyer opportunism is explained by the independent variables in the model whilst the remaining percent of the explanation is done by other non-included variables.

The empirical results supported our hypothesis1 based on Transaction cost theory. The hypothesized association between buyer opportunism and Buyer control is positive and significant. Hypothesis 2 which states a negative association between Buyer

opportunism and Supplier satisfaction was found to be significant and of the right sign, that is a negative association. Hence perceived buyer opportunism reduces supplier satisfaction. This is consistent with the findings of Gassenheimer et al (1996) and Cronso and Dahlstrom (2010) where opportunism was found to reduce satisfaction. Buyer opportunism and Transaction-specific supplier development (hypothesis 3) was also found to be significant and negatively associated. In the fourth hypothesis the model is expanded to include the interaction terms between relationship duration and supplier satisfaction, (REDURA* SATIS). When tested the interaction terms was found to be negatively associated with the dependent variable buyer opportunism and highly significant (t= -2.95, p= <.01).

This research sought to find answers to a set of research questions of which the first research question was "what key factors influence buyer opportunism as perceived by the supplier?" The findings from this study suggest that the exercise of control by buying firms and their purchasing agents is perceived by suppliers as a means by which they the suppliers can be taken advantage of by the buying agents. This is because a partner who has the power to control another can sometimes abuse the relationship to his/her advantage. Hence most cocoa growers see this controlling behavior of the purchasing agents as an opportunity to be exploited to their disadvantage by the buying firms. Supplier dissatisfaction is one other important factor that has been identified to influence buyer opportunism. Suppliers who are not pleased with relationship outcomes in terms of the economic and or the social aspect of the relationship perceive buyers as being opportunistic.

Hence dissatisfaction of a partner in a relationship can be cited as one of the many reasons why one partner may see the other as being opportunistic. Cocoa growers who are not satisfied with their relationship with buying companies and their agents especially in terms of economic outcomes are likely to perceive these firms and their agents as being opportunistic. Recent media publication in the Ghanaian press where some cocoa growers complained of being cheated by buying agents with respect to undervaluation of their sales attest to this assertion.

Supplier development is one other factor that has been identified to have an influence on buyer opportunism. Transaction-specific supplier development particularly reduces perceived buyer opportunism. Suppliers therefore perceive buyers who invest in them as been less opportunistic. They see such investment as goodwill from the buying firms as such good intensions can only be coming from people who wants the best for them and their farm business. Buyer's investment in transaction specific-supplier development gives the buyer the mandate to safeguard its investment and this makes the suppliers to perceive the buyers as less opportunistic.

The second research question under what condition does a supplier's prior relationship with an exchange partner reduces buyer opportunism? A supplier's prior relationship with an exchange partner reduces perceived buyer opportunism under conditions of high supplier satisfaction, where there is a stronger negative association between relationship duration and buyer opportunism than under low/moderate supplier satisfaction.

8.3 Discussion

According to transaction cost analysis (TCA) the presence of specific assets creates the need for specialize governance structure by allowing the buyer to safeguard his assets or investment. This necessitates buyer control of supplier decision in the form of quality consideration and the determination of who get credits and other forms of assistance. In transaction cost theory, specific assets lead to the problem of safeguarding. It is therefore seen in this light that the buyer specific investment in supplier significantly increases the control the buying firm exercises over the decision of the supplier. Power and control goes hand-in-hand.

There is an imbalance of power between small holder cocoa supplier and their trading partners as seen from the comparison of their respective turnovers. Buying firms in the cocoa industry of Ghana are noted to have more relative power than cocoa growers (Vigneri and Santos, 2007). Buying firms turnover in terms of purchases form cocoa suppliers is relatively larger than sales from individual cocoa suppliers. Hence, the relative power of the buyer firms compared to that of individual small holder farmers is huge this makes them to exercise decision control over the suppliers. The exercise of this decision control makes the suppliers to think that they behave opportunistically. There is therefore

the need for suppliers to see buyers as not been opportunistic due to the power imbalance that exists between them but as partners in the buyer seller relationship.

Another contributory factor to the perceived buyer opportunism is due to vulnerability which may be due to either information asymmetry or a lock-in situation (Wathne and Heide, 2000). The latter is more appropriate to the situation of cocoa suppliers in Ghana. Buying companies (LBC's) are located in the supplier's community and an unsatisfied supplier would have to transport his/her cocoa to another nearby community in order to sell to alternative buyers though there may be other buying firm representatives in the same locality. This may prove to be difficult due to the switching cost associated with such a move which adds to the transaction cost and thereby reducing income.

In Transaction cost analysis (TCA) the presence of specific assets creates the need for specialize governance structure by allowing the buyer to safeguard his assets or investment. This necessitates buyer control of supplier decision in the form of quality consideration and relationship administration. However, buying firms investing in cocoa growers through transaction-specific supplier development initiatives in the form of dedicated assets such as the provision of equipment, tools; "soft" loans or capital; training and recognition of achievement in terms of awards for example "best farmer" are seen by the cocoa growers herein the suppliers as efforts that are geared towards improving their performance (Glavee-Geo and Buvik, 2012a). Such investments by the buying firms necessitate some form of control by the firm over the supplier not only as a safeguard for dedicated assets employed but more also as a means of channel management.

It is also argued that because buying firms invest in the suppliers, the expectation of normative behavior by both partners in the relationships makes the suppliers perceive the buyers as being less opportunistic. Cocoa growers who are the suppliers in such relational exchanges therefore perceive the buying firms and their purchasing agents as being less opportunistic. The deployment of transaction-specific supplier development can therefore be suggested to lead to some norm development and friendships which can influence the way one partner perceive the other as this study seems to suggest. Cocoa growers who receive some form of intervention (dedicated transaction-specific assets) from their exchange partners perceive these partners as being less opportunistic than those who did not receive any form of intervention form their partners. Hence the negative

influence of supplier development on perceived buyer opportunism as supported by this study.

The availability of supplier development initiatives by buyers contribute to enhancing the buyer seller relationship. These factors contribute to enhancing the economic as well as the social aspect of the relationship through the development of the friendships after repeated exchanges. Satisfactory buyer-seller relationships between suppliers of cocoa and the buyers then translate into improved buyer seller relationship (Glavee-Geo and Buvik 2012b). Satisfaction, trust and commitment have been identified as important aspects of a quality relationship (Ivens, 2004). Thus for satisfactory buyer seller relationships between buyers and suppliers, an assessment of the two main effect of a relationship regarding; the behavior of a transaction partner and the benefit or cost associated with the relationship is needed. The positive outcome of this evaluation from the initial stages of a relationship will move it to the next stage the relationship maintenance stage (Heide, 1994).

The positive outcome makes the exchange partners satisfied so that as partners continue to have repeated transactions they begin to develop trust and the degree of that trust gives an indication of the relationship quality (Dervitsiotis, 2006). But the opportunistic behavior of some buying agents leads to the suppliers not trusting the purchasing agents but also the firms that they represent. This goes to tarnish the image and the reputation of the firms. The mistrust may lead the suppliers to switch over to other buying firms in order to enjoy more economically and socially satisfying relationships (Glavee-Geo and Buvik 2012b). On the other hand, when opportunism is low this indicates an honest and well performing trading partner.

Selnes and Sallis (2003) also noted that time duration is able to enforce the experience and also act as an essential defense in preventing the exchange partner from behaving opportunistically. The prospect of opportunistic behavior is comprehensive due to the short prior history existing between partners at the relationship initiation stage which is modest as a result of established relational norms (Buvik and Burki 2010). Thus after repeated exchanges when satisfaction is high the prior history of the relationship will decrease the perceived opportunism. The history or prior relationships have negative influence on buyer opportunism. Cocoa growers who have been dealing with their

exchange partners for some time can be said to have a more satisfactory relationship with these partners. Prior relationships therefore lead to norm formation.

Prior relationship reduces perceived buyer opportunism. However those relationships are condition on the fact that there are satisfactory relationship outcomes. A supplier's prior relationship with an exchange partner reduces perceived buyer opportunism under conditions of moderate supplier satisfaction. Thus dissatisfied cocoa suppliers perceived their exchange partners as being highly opportunistic. The effect of relationship duration on perceived buyer opportunism increases with dissatisfactory relationship outcomes while satisfactory relationship outcomes reduce the perception of buyer opportunism.

8.4 Implication of the study

The theoretical implication of this study is that the study contributes to the extant literature on buyer supplier relationship by integrating two theories (Transaction cost theory and Relationship contracting theory). Relationship duration is expected to reduce opportunistic behavior due to establishment of relational norms according to relational contracting theory whilst satisfaction is also expected to reduce opportunism but the findings from this study shows that relationship duration is able to reduce opportunism but contingent on the existence of moderate satisfaction than when there is low satisfaction.

Relative power which is more towards the license buying companies LBC's makes the buying agents to behave opportunistic towards the farmers (suppliers). A managerial implication of this study is that managers of the buying firms would have to monitor the agents who represent them in dealing with the suppliers as monitoring acts as a check or control mechanism which leads to the reduction in the exercise of opportunism by exchange partners as the failure to do so goes to tarnish the image of the buying firm as well. Another managerial implication of this study is that it would give an understanding of the key factors that influence perceived buyer opportunism. In conclusion, for long-term business relationships to be perceived by either party as less opportunistic there is the need for both parties to ensure satisfactory relationship outcomes for mutual benefit.

8.5 Limitation of the study

A major limitation of this study has to do with the small sample size. In this study the sample size is 73. This is below the recommended sample size using the formula proposed by Tabachnick and Fidell (1996) in Pallant (2007) which considers the number of independent variables involve in the study. They recommended that: $N > 50+8m$ where m is the number of independent variables. Another methodological issue has to do with the sampling technique used. The study used convenience sampling which is not recommended for descriptive research. But it is permissible for pilot studies for which the original intention of the data collection was. A final limitation of this study is based on the fact that the study involved the analysis of one industry. Based on these issues, the result from this study may not be generalized.

8.6 Further research

Due to the limitation of the analysis of a single industry in this study it is recommended for further studies to be conducted across different industries. Also due to the fact that the study used cross-sectional data based on which the hypotheses were tested at a single point in time it is recommended that longitudinal studies are conducted at different points in time to explain more on the issue of buyers' opportunistic behavior in exchange relationships.

Another point for further research is that since the data was collected from only the supplier side of the buyer-supplier dyad, the measuring of buyer opportunism is the supplier's perception of buyer opportunism. It could be possible to examine buyer opportunism from the buyer's perspective to see if there will be convergence. However, previous research has shown that such convergence in viewpoint of different parts of the dyad does not happen (e.g. Anderson and Narus1990; Anderson and Weitz 1989; Ganesan 1994 cited in Joshi, 1998).

References

Agle, B.R., and Kelley, P.C. (2001) "Ensuring Validity in the Measurement of Corporate Social Performance: Lessons from Corporate United Way and PAC Campaigns". *Journal of Business Ethics* 31, p.271-284

Alchan, A. A. and Demsetz, H. (1972) "Production, Information Costs, and Economic Organization". *The American Economic Review*, 62(5), p.777-795

Amoah, J.E.K. (1995) *Development of consumption, commercial Production and Marketing.* Cocoa outline series No. 1 Jemre Enterprises Limited, Accra.

Amoah, J.E.K. (1998) *Marketing of Ghana Cocoa 1885-1992*. Cocoa outline series No. 2 Jemre Enterprises Limited, Accra.

Andaleeb, S. S. (1996) "The Trust Concept: Research Issues for Channel of Distribution". *Research in Marketing,* 11, p.1-34

Anderson, E. (1985) "The Salespersons as Outside Agent or Employee: A Transaction Cost Analysis". *Marketing Science*, 4, p. 234-254

Anderson, E. (1988) "Transaction Costs as Determinants of Opportunism in Integrated and Independent Sales Forces" *J Econ Behav Org* 9 p.247-264

Anderson, J.C., and Narus, J.A. (1984) "A Model of the Distributor's Perspective of Distributor –Manufacturer Working Relationships" *Journal of Marketing*, 48 (4), p.62-74

Anderson, J.C., and Narus, J. A. (1990), "A Model of Distributor Firm and Manufacturer Firm Working Partnerships" *Journal of Marketing*, 54 (January) p.42-58.

Anderson, J.C., and Weitz, B.A. (1989) "Determinant of Continuity in Conventional Industrial Channel Dyads" *Marketing Science*, 8(4), p.310-323.

Anin- Kwapong, G.J., and Frimpong, E.B. (2004) Vulnerability and Adaptability Assessment under the Netherlands Climate Change Studies Assistance Programme Phase 2 (NCCSAP2) Vulnerability of agriculture to climate change-impact of climate change on cocoa production. CRIG, New Tafo Akim

Anonymous, (2001) The State of the Ghanaian Economy in 2000. Institute of Statistical,

Social and Economic Research (ISSER), University of Ghana, Legon, p.162

Anonymous, (2003) The State of the Ghanaian Economy in 2002. Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon, p.164

Anthonio, D.C., and Aikins, E. D. (2009) "Reforming Ghana's Cocoa Sector- An Evaluation of Private Participating in Marketing". Master's Thesis submitted to the Luleå University of Technology, 2009.

Arbuckle, J.L. (2009) *Amos 18.0*, Chicago, IL: SPSS.

Awua, P. K. (2002) *The success story of cocoa processing and chocolate manufacture in Ghana: The success story that demolished a myth*, David Jamieson & Associates Limited, Castle Street, Saffron Walden, Essex, Great Britain, 144p.

Bank of Ghana (2011) Statistical Bulletin. IDPS Department, Bank of Ghana, Accra: Ghana February 2011.

Barkema, H.G. (1995) "Do Top Managers Work Harder When They are Monitored?" *Kyklos*, 48(1), p.19-42

Barney, J. and Ouchi, W. editors. *Organizational economics*. San Francisco: Jossey-Bass, 1988

Batt, P. J. (2003) "Building Trust between Growers and Market Agents", *Supply Management, An International Journal*, 8(1), p. 65-78.

Benton, W.C., and Maloni, M. (2005) "The Influence of Power driven Buyer / seller Relationships on Supply Chain Satisfaction" *Journal of Operations Management* 23 p.1-22

Bergen, M., Dutta, Shantanu, and Walker, O. Jr. (1992) "Agency Relationships in Marketing: A Review of the Implication of and Applications of Agency and Related Theories" *Journal of Marketing*. Chicago 56, p.1-24

Berthon, P., Pitt. L.F., Ewing. M.T., and Bakkeland G. (2003) "Norms and Power in Marketing Relationships: Alternative Theories and Empirical Evidence" *Journal of Business Research* 56, p.699-709

Bradach, J.L., and Eccles R.G. (1989) "Price, Authority and Trust: From: Ideal Types to Plural Forms" *Annual Review of Sociology*, 15, p.97-118

Brown and Frazier, G.L. (1978) "The Application of Channel Power: Its Effects and Connotations". *AMA Summer Educator's Conference Proceedings*. Chicago p.266-270

Bucklin, L.P., and Sengupta (1993) "Organizing Successful Co-Marketing Alliances",

Journal of Marketing, 57(April), p.32-46

Burki, U. (2009) Cross Cultural Effects on the Relational Governance of Buyer-Supplier Relationships: An Empirical Study of the Textile Exporting Firms of Pakistan Doctor of Philosophy dissertation submitted to the Molde University College, Unpublished

Business and financial Times (2012) COCOBOD to revoke four buyers' licenses 16th January, 2012 2:30 pm Business News of Monday, 6 February 2012

Business and financial Times (2012) COCOBOD to sanction buyers http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=229354 Accessed 12.04.12

Buvik, A. (2002), "Manufacturer-Specific Asset Investments and Inter-Firm Governance Forms: An Empirical Test of Contingent Effect of Exchange Frequency", *Journal of Business-to-Business Marketing,* 9 (4), p.4-26.

Buvik, A. (2011) Lecture Note Research Design Seminar Molde University College 2011

Buvik, A. and Andersen, O. (2011) "The Effect of Multiple Sourcing on Buyer Control in Industrial Buyer-Seller Relationships". Working paper, Molde University College, January 2011

Buvik, A. and Burki, O. (2010) "Do relationship History and Norms Matter in Overcoming Interorganizational Difficulties in Procurement Function?" *International Journal of Procurement Management*, 3 (3), p.279-291

Buvik, A., and Halskau, Ø. (2001) "Relationship duration and Buyer Influence in Just-in-Time Relationship" *European Journal of Purchasing and Supply Management*, 7, 2.

Buvik, A., and John G. (2000) "When Does Vertical Coordination Improves Industrial Purchasing Relationships?" *Journal of Marketing*, 64(4), p.52-64

Buvik, A. and Reve T. (2002) "Interfirm Governance and structural Power in industrial Relationship: The Moderating effect of Bargaining Power on Contractual Safeguarding of Specific Assets". *Scandinavian Journal of Management,* 18, p.261-284.

CadburySkillSpace(2012)Online: http://www.skillsspace.co.uk/geography/geography_images.asp?large_image_name=GHANA_COCOA_REGION&large_image_caption=Ghana%E2%80%99s%20cocoa-growing%20region Accessed 24.4.12

Churchill, G.A. Jr. (1979) " A Paradigm for Developing Better Measures of Marketing Constructs" *Journal of Marketing Research* (pre-1986); Feb.1979;16,000001; p.64

Churchill, Jr. G.A. (1999) *Methodological Foundations,* 7th edition, *Marketing Research:* The Dryden Press- Harcourt Brace College Publishers, University of Wisconsin

Churchill, Jr. G.A. and Brown, T.J. (2004) *Basic Marketing Research,* 5th edition; Thomson South-Western Publishing, USA

Coarse, R. (1937) "The nature of the firm" *Economica*, 4, p.386-405

COCOBOD (2012) Ghana Cocoa Board http://www.cocobod.gh/history.php Accessed 14.02.12

Cronbach, L. (1987) "Statistical Tests for Moderator Variables: Flaws in Analysis Recently Proposed" *Psychological Bulletin* 102 p.414-417

Cronso, J. L., Dahlstrom, R. (2010) "Examining the Nomological Network of Opportunism: A Meta-Analysis" *Journal of Marketing Channels,* 17 (3), p.177-190

Crosby, L. A., Evans, K. R. and Crowles, D. (1990), "Relationship Quality in Services Selling: An Interpersonal Influence Perspective" *Journal of Marketing***,** 54 (3), (July 1990), p. 68-81

Deci, E.L., Koestner, R. and Ryan, R.M. (1999) "A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation" *Psychological Bulletin*, 125(6), 627-668

Dervistsiotis, K.N. (2006) "Building Trust for Excellence in Performance and Adaptation to Change", *Total Quality Management& Business Excellence*, 17(7), p.795-810

De Vellis R.F. (2003) *Scale development Theory and Application* 2nd edition Sages Publication Inc. California

Doherty, B., and Tranchell, S. (2005) "New Thinking in International Trade? A Case of the Day Chocolate Company" *Sustainable Development* 13, p.166-176

Dormon, E.A.N, Huis, A.V., Leeuwis, C., Obeng-Ofori, D., and Sakyi-Dawson, O. (2004) 'Causes of low Productivity of cocoa in Ghana: Farmers' Perspective and Insights from Research and the Socio-Political Establishment NJAS 52-3/4

Douma, S. and Schreuder, H. (2008) *Economic approaches to organizations* (4 ed).Essex, UK: Pearson Education Ltd

Dunn, S.C., Seaker, R.F. and Waller, M.A. (1994) "Latent Variables in Business Logistics Research: Scale Development and Validation" *Journal of Business Research* 15(2) p. 145-172

Dutta, S., Bergen, M., and John, G. (1994) "The Governance of Exclusive of Exclusive Territories When Dealer Can Bootleg" *Marketing Science*, 13 (1), p.83-99

Dwyer, R.F., Schurr, P.H., and Oh, S (1987) "Developing Buyer-Seller Relationships" *Journal of Marketing*, 51(2) p.11-27

Easterby-Smith, M., Thorpe, R. and Lowe, A. (2002), *Management Research*, 2nd edition, SAGE Publications, London- Thousand Oaks- New Delhi

Ellram, L.M (1991) "Supply Chain Management: The Industrial Organization Perspective", *International Journal of Distribution and Logistics Management*, 21 (1) p.13-40

Emerson, R.M. (1962) "Power and Dependence Relations" American *Sociological Review* 27, p.31-41

Farrell, A. M. (2010), "Insufficient Discriminant Validity: A Comment on Bove, Pervan, Beatty and Shiu (2009)", *Journal of Business Research*, 63, p. 324-327.

Fornell, C. and Larcker, D. F. (1981) "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error". *Journal of Marketing Research* 18, (1), 39-50.

Gaur, A.S. and Guar, S.S. (2006) *Statistical methods for practice and research- a guide to data analysis using SPSS*, Response Books/Sage Publications, New Delhi

Ganesan, S. (1994) "Determinants of Long-term Orientation in Buyer-Seller Relationships", *Journal of Marketing*, 58 (April), p. 1-19.

Gassenheimer, J. B., Calantone, R. J. and Scully, J. L. (1995) "Supplier Involvement and Dealer Satisfaction: Implications for Enhancing Channel Relationships" *Journal of Business and Industrial Marketing* 10 (2), p.7-19.

Gassenheimer, J.B., Sterling, J.U., and Robicheaux, R.A. (1996) "Long-term Channel Relations using Meta-Analysis of Satisfaction: A Comparison of Reseller-Supplier Relationship". *Journal of Retailing*, 70 (3), p.253-266

Geyskens, I., Steenkamp, J.E.M. (2000) "Economic and social satisfaction: Measurement and Relevance to Marketing Channel Relationships" *Journal of Retailing*, 76(1) p.11-32

Geyskens, I., Steenkamp, J.E.M and Kumar, N. (1999) "Economic and social satisfaction: Measurement and Relevance to Marketing Channel Relationships" *Journal of Marketing Research*, Vol. XXXVI (May) p.223-238

Geyskens, I., Steenkamp, J.E.M and Kumar, N. (2006) "Make, Buy or Ally: A Transaction Cost Theory Meta-Analysis. *Academy of Management Journal*, 49(3), p.519-543

Ghijsen, P. W. Th., Semeijn, J., and Ernstson S. (2009) "Supplier Satisfaction and Commitment: The Role of Influence Strategies and Supplier Development. *Journal of Purchasing and Supply Management*, doi: 101016/j.pursup.2009.06.002

Gilbert, C. L. (2008) Value chain analysis and market power in commodity processing with application to the cocoa and coffee sectors. In: FAO. *Commodity market review*, Rome, Italy: FAO, p. 5-34.

Glavee-Geo, R. and Buvik, A. (2012a), The Contingent Effect of Supplier Development on Supplier Performance: An Empirical Study of Agro-commodity Suppliers of Ghana, proceedings of the *Fagkonferanse I Bedriftsøkonomiske Emner (FIBE)* 2012 Conference, Bergen 5-6 January, 2012.

Glavee-Geo, R. and Buvik, A. (2012b), Factors Influencing Supplier Performance and Satisfaction in Agro-commodity value chains, proceedings of the *21st International Purchasing and Supply Education and Research Association* (IPSERA) Conference, Naples 1-4 April, 2012.

Glavee-Geo, R. (2012) The Antecedents and Consequences of Supplier Satisfaction in Agro-Commodity value Chain: An Empirical Study of Smallholder Cocoa Growers of Ghana, PhD Thesis (forthcoming), Molde University College, Norway, Unpublished.

Granovetter, M. (1985) "Economic Action and Social Structure the Problem of Embeddedness" *American Journal of Sociology* 91, p.481-510

Griffith, D.A, Harvey, M.G. and Lusch, R. F. (2006) "Social Exchange in Supply Chain: The Resulting Benefits of Procedural and Distributive Justice" *Journal of Operations Management*, 24, p.85-98

Gundlach, G.T., Achrol, R. S. and Mentzer, J. T. (1995) "The Structure of Commitment in Exchange" *Journal of Marketing*, 59 (January), p.78-92.

Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C. (1998) *Multivariate data analysis*, 7th Edition, New Jersey: Prentice-Hall.

Handfield, R.D., Krause, D.R., Scannell, T.V., and Monczaka, R.M. (2000) "Avoid the Pitfalls in Supplier Development". *Sloan Management* 41 (2), p.37-49.

Hawkins, T.G. (2007) Explaining Buyer Opportunism in Business to Business Doctor of Philosophy dissertation Submitted to the University of North Texas

Heidi, J.B. (1994) "Inter-Organizational Governance in Marketing Channels: Theoretical Perspective on Forms and Antecedents". *Journal of Marketing*, 58(1), p.71-85

Heide, J.B. (2003) "Plural Governance in Industrial Purchasing" *Journal of Marketing*, 67 (October), p.18-29

Heide, J. B., John, G. (1990) "Alliances in industrial purchasing: the determinants of joint action in buyer seller relationships". *Journal of Marketing Research*, 27, p.24-36

Heide, J. B., John, G., (1992) "Do Norms Matter in Marketing Relationships?" *Journal of Marketing* 56 (April), p.32-44.

Heide Jan B., Miner, A. S. (1992) "The Shadow of the Future: Effects of Anticipated Interaction and Frequency of Contact on Buyer-Seller Cooperation". *Academy of Management Journal* 6 (June), p.265-291.

Heide, J. B., Wathne, K.H., and Rokkan, A.I. (2007) "Interfirm Monitoring, Social

Contracts and Relationship outcomes" *Journal of Marketing Research* Vol. XLIV (August), p.425-433

Humphreys P.K., Li, W.I., and Chan, L.Y. (2004) "The Impact of Supplier Development on Buyer Supplier Performance" *Omega The International Journal of Management Science* 32 (2), p.13-143.

ICCO Quarterly *Bulletin of Cocoa Statistics*, Vol. XXXVII, No.4, Cocoa year 2010/11

Ivens, B. S. (2004) "Industrial Sellers' Relational Behavior: Relational Styles and their Impact on Relationship Quality", *Journal of Relationship markerting*, 3(4), p.27-43

Jaccard, J, and Turris, R. (2003) *Interaction Effects in Multiple Regression*, (2nd ed). Sage University Papers Series on Quantitative Applications in the Social Sciences, series no. 07-072) Thousand Oaks, CA: Sage.

Jarvis, C.B., Mackenzie, S.B., and Podsakoff, P.M. (2003) "A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research" *Journal of Consumer Research*, 30(2) p.199-218

John, G., (1984) "An Empirical Investigation of Some Antecedents of Opportunism in a Marketing Channel" *Journal of Marketing Research* 21 (3), p.278-289.

Joshi, A.W. (1998) "How and why do relatively Dependent Manufactures Resist Supplier Power?" *Journal of Marketing Theory and Practice* Special Issue 6(4), p.61-77

Joshi, A.W., and Stump, R. L. (1996) "Supplier Opportunism: Antecedents and Consequences in Buyer-Supplier Relationships" in *AMA Educator's Conference Proceedings*, Cornelia Droge and Roger Calantone, eds., p.129-135

Joshi, A.W., and Stump, R. L. (1999) "Determinants of Commitment and Opportunism: Integration and Extending Insight for Transaction Cost Analysis and Relational Contracting Theory". *Canadian Journal of Administrative Science*, 16(4), p.334-352.

Kerlinger F.N, (1986) *Foundations of behavioral research*, Second edition, Holt Rinehart and Winston, New York, NY

Kelly, K., and Kerwin K. (1992) "There's Another Side to the Lopez Saga" *BusinessWeek*, (August 23), 26

Klein, B. (1996) "Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships" *Economic Inquiry*, 34 (3) p.444-463

Kimberlin, C.L., and Almut, W.G. (2008) "Validity and Reliability Measures used in Research" *Am J Health-Syst Pharm*- 65(1)

Kolavalli, S., and Vigneri, M. (2011) Cocoa in Ghana: Shaping the success of an economy. In P. Chuhan-Pole, and M. Angwafo (Eds.) *Yes African Can: Success Stories from a dynamic continent* (p.201-218). Washington D.C: The International Bank for Reconstruction and Development/The World Bank

Kotabe, M., Martin, X. and Domoto. (2003) "Gaining from Vertical Partnerships: Knowledge Transfer, Relationship Duration, and Supplier Performance Improvements in the U.S. and Japanese Automoative Industries", *Strategic Management Journal*, 24(4), p. 293-316.

Krause, D. R. (1999) "The Antecedents of Buying Firms' effort to Improve Suppliers". *Journal of Operations Management* 17 (2), p.205-224.

Krause, D.R. and Ellram, L.M. (1997) "Success Factors in Supplier development", *International Journal of Physical Distribution and Logistics Management* 27(1/2), p.39-52

Lai, C., Shuei- Shen, L., Chin-Fang, Y., Hong-Wei, L., and Hung-Wen, T. (2005) "Governance Mechanisms of Opportunism: Integrating from Transaction Cost Analysis and Relational Exchange Theory," *Taiwan Academy of Management Journal,* 5(1), p.1-24

Lavan, A. (2007) Marketing reforms in Ghana Cocoa Sector Partial liberation, partial benefit? Background note (December, 2007) Oversea Development Institute: Online http://www.odi.org.uk/resources/ Accessed 15.03.2012

Lee, D-J., Sirgy, M.J., Brown, J.R. and Bird, M.M. (2004) "Importers' Benevolence towards their Foreign Export Suppliers", *Academy of Marketing Science Journal*, 32 (1) p.32-48

Lohtia, R., Brooks, C.M. and Krapfel, R.E. (1994) "What Constitutes A Transaction Specific Asset? An Examination of the Dimensions and Types" *Journal of*

Business Research, 30(3), p.261-270

Lundstedt, H., Parssinen, S. (2009) Cocoa is Ghana, Ghana is Cocoa Evaluating reforms of the Ghanaian Cocoa Sector Minor Field Study Series No.198, University of Lund, Sweden http/www.nek.lu.se/Publ/mfs/198.pdf Accessed 21.4.12

Macaulay, S. (1963) "Non-Contractual Relationships in Business" *American Sociological Review*, 28 (February), p.55-70

Macneil, I.R. (1978) "Adjustments of long term Economic Relations under Classic, Neoclassical and Relational Contract Law", Northwestern *University Law Review*, 72(6), p.854-905

Macneil, I.R. (1980) *The New Social Contracts* New Haven: Yale University Press CT

Malhotra, N.K, and Birks, D.F. (2006) *Marketing Research An Applied Approach* Updated Second European Edition, Pearson Education Limited Prentice Hall

Maloni, M., and Benton, W.C. (2000) "Power Influences in the Supply Chain" *Journal of Business Logistics* 21(1) p.49-73

Mentzer, J.T., and Flint D. J. (1997) "Validity in Logistics Research" *Journal of Business Logistics,* 18 (1), p.199

Moorman, R.C, Deshpande, R. and Zaltman, G. (1992) "Factors Affecting Trust in Market Research Relationships". *Journal of Marketing*, 57(January), p.81-91

Morgan, R.M. and Hunt, S.D. (1994) "The Commitment Trust Theory of Relationship Marketing", *Journal of Marketing Research* 58 (3), p.20-38

Murry, J.P and Heide, J.B (1998) "Managing Promotion Programs Participation within Manufacturer-Retailer Relationships" *Journal of Marketing*, 62 (January), p.58-69

Noordewier, T.G., John. G., and Nevin J.R. (1990) "Performance outcomes of Purchasing Arrangements in Industrial Buyer- Vendor Relationships" *Journal of Marketing*, 54 (October), p.80-93

Nunnally, P. (1967) *Psychometric Theory*, 2nd ed., New York Mc Graw- Hill

Opoku, E. (2011) Cocoa Farmers Angry: http://www.dailyguideghana.com/?p=35610

Accessed 30.12.11

Opoku, E. A. (2012) Towards a sustainable trade: Potentials for fair market structures in Ghana's cocoa industry http://www.suedwind-institut.de/fileadmin/fuerSuedwind/Publikationen/2011/Kakaotagung_2.1_Emmanuel_Opoku_-_Potentials_for_fair_market_structures_in_Ghana_s_cocoa_industry.pdf Accessed 13.03.2012

Ouchi, W.G. (1979) "A Conceptual Framework for the Design of Interorganizational Control Mechanism" *Management Science*, 25(9), p.833-848

Pallant, J. (2007) *SPSS Survival Manual* Third edition Mc Graw Hill

Parkhe, A. (1993) "Strategic Alliance Structuring: A Game Theoretical and Transaction Cost Examination of Interfirm Cooperation" *Academy of Management Journal*, 34(4), p.794-829

Peter, P. J. (1979) "Reliability: A Review of Pychometric Basics and Recent Marketing Practices" *Journal of Marketing Research* 16 (February), p.6-19

Ping Jr., R.A. (2004) "On Assuring Valid Measures for Theoretical Models using Survey data *Journal of Business Research* 57 (2004) p.125-141

Provan, K. G., Skinner, S. J. (1989) "Interorganizational Dependence and Control as Predictors of Opportunism in Dealer-Supplier relations" *Academy of Management Journal* 32(1), p.202-212.

Quartey, E. (2007), COCOBOD Presentation, Research Department, Ghana Cocoa Board, Online: http://gssp.files.wordpress.com/2007/12/quartey-cocobod.pdf, Accessed 06.03.2012.

Rindfleisch, A., Antia, K., Bercovtitz, J., Brown, J.R., Cannon, J., Carson, S.J., Ghosh, M., Helper, S., Robertson, D.C., and Wathne K.H. (2010) "Transaction Cost Opportunism, and Governance: Contextual Considerations and Future Research Opportunities" *Market Lett* 21: p.211-222

Rindfleisch, A., and Heide, J.B. (1997) "Transaction Cost Analysis: Past, Present, and Future Applications" *Journal of Marketing*, 61 p.30-54

Ring, P. S and Van de Van, A. H. (1992) "Structuring Cooperative Relationships between Organizations", *Strategic Management Journal*, 13(7), p. 483-498

Ring, P. S and Van de Van, A. H and Andrew, H. (1994) " Development Processes of Cooperative Interorganizational Relationships" *The Academy of Management Review* , 19, (1), p. 90

Rodriguez, I.B., Agudo, J.C., and Gutierrez, H.S. M. (2006) "Determinants of Economic and Social Satisfaction in Manufacturer-Distributor Relationships" *Industrial Marketing Management* 35 (2006) p.666-675

Rokkan, A. I. and Buvik, A. (2003) "Inter-firm Cooperation and the Problem of Free riding Behavior: An Empirical Study of Voluntary Retail Chains, *Journal of Purchasing and Supply Management*, 9, p.247-256.

Rousseau, D. M, Stitkin, S.B., Burt, R. S and Camerer, C. (1998) "Not so Different after all: A Cross Discipline View of Trust", *The Academy of Management Review*, 3, p. 93.

Sabel, C.F (1993), "Studied Trust: Building New Forms of Cooperation in a volatile Economy" *Human Relations*, 46 (9), p.1133-70

Schreiber, J. B., Stage, F. K and King, J. (2006) "Reporting Structural Equation Modeling and Confirmation Factor Analysis Results: A Review" *The Journal of Education Research* July /August (2006) 99 (6)

Selnes, F. (1998) "Antecedent and Consequences of Trust and Satisfaction in Buyer Seller Relationships" *European Journal of Marketing*. Bradford: 1998 Vol. 32, Iss. 3/4; p. 305

Selnes, F. and Sallis, J. (2003) "Promoting Relationship learning" *Journal of Marketing*, 67 (3) p.80-96

Shueh-Chin, T., Chen-Nan, C., and Darrell, B.E. (2007) "An Integrated study of Entrepreneurs Opportunism" *Journal of Business and Industrial Marketing* 22(5), p.322-335

Skarmeas, D., Constantine S Katsikeas, C. S., Schlegelmilch, B. B. (2002) "Drivers of Commitment and its Impact on Performance in Cross-Cultural Buyer-Seller relationships: The Importer's Perspective" *Journal of International Business Studies*. 33 (4), p.757-783

Skinner, S. J, Gassenheimer J.B and Kelly, S. W. (1992), "Cooperation in Supplier-Dealer Relations" *Journal of Retailing*, Summer, 68 (2) p.174-193.

Simon, H. (1957) *Models of Man*. New York: John Wiley and Sons

Simon, H. (1961) *Administrative Behavior* (2nd ed). New York Macmillan

Stinchombe, A. L. (1987) *Constructing Social Theories*, Chicago: University of Chicago Press

Sullivan, J. and Peterson R. B. (1982) " Factors Associated with Trust in Japanese-American Joint ventures" *Management International Review*, 22, p.30-40

Tabachnick, B. C and Fidell, L.S. (1996) *Using multivariate statistics* (3rd edition), New York Harper Collins

Tirole, J. (1986) "Procurement and Renegotiation" *The Journal of Political Economy*, 94(2), p.235-259

Varangis, P., Schreiber G. (2001) Cocoa market reforms in West Africa, in Akayima, T. Baffes, J. Larson, D., Varangis, P. (Eds.), Commodity market reforms: Lessons of two decades, The World Bank, Washington, DC. Chapter 2, p.35-82.

Vigneri, M., and Santos, P. (2007) "Ghana and the Cocoa Marketing dilemma: What is liberalization without prize competition achieved?" ODI Project Briefing No. 3 December, 2007

Walton, M. (1997), "When your Partner fails you" *Fortune*, 135(10), p.87-89

Wathne, K.H. and Heide, J.B (2000) "Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions". *Journal of Marketing*, 64 (October), p.36-51

Wathne, K.H. and Heide, J.B (2004) "Relationship Governance in a Supply Chain Network". *Journal of Marketing*, 68 (1), p.73-8

Watts, C. A. and Hahn, C. K. (1993) "Supplier Development Program: An Empirical Analysis" *International Journal of Purchasing and Materials Management*, 29 (2), 11-17.

Wagner, S. M. (2006) “Supplier Development Practices: An Exploratory study”. *European Journal of Marketing* 40 (5/6), p.554-571

Williamson, O.E. (1975) *Markets and Hierarchies*: Analysis and Antitrust Implication. New York: The Free Press

Williamson, O.E. (1985) *The economic Institution of Capitalism*. New York: The Free Press

Williamson, O.E. (1991) “Comparative economic organization: The analysis of discrete structural alternatives”. *Administrative Science Quarterly*, 36(2), p.269-296

Wilson, D.T. (1995) “An Integrated Model of Buyer-Seller Relationship” *Journal of Academy of Marketing Science* 23(4) p. 335-345

World Bank (2012) Supply Chain Risk Assessment Cocoa in Ghana Online: http://www.agriskmanagementforum.org/farmd/doc/supply-chain-risk-assessment-cocoa-ghana Accessed 29.02.12

World Cocoa Foundation (2010) Cocoa Market Updates, May 2010

APPENDICES

APPENDIX 1a Descriptive statistics (before centering of SATIS and REDURA)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
REDURA	73	.41	3.40	1.8037	.81086
SALESVOL	73	4.14	8.02	6.0068	.78281
BUYCON	73	3.00	7.00	6.0525	.76066
TRUST	73	1.43	7.00	5.5753	1.43213
SATIS	73	2.50	7.00	5.7973	1.03949
REPOWER	73	1.00	7.00	5.5342	1.39525
SUDEV	73	1.50	6.75	4.5411	1.46369
OPPORreversed	73	1.00	7.00	3.7842	1.45733
satisCCXreduraInCC	73	-4.12	3.11	-.0553	.86058
Valid N (listwise)	73				

APPENDIX 1b Descriptive statistics (with centering of SATIS and REDURA)

Descriptive Statistics

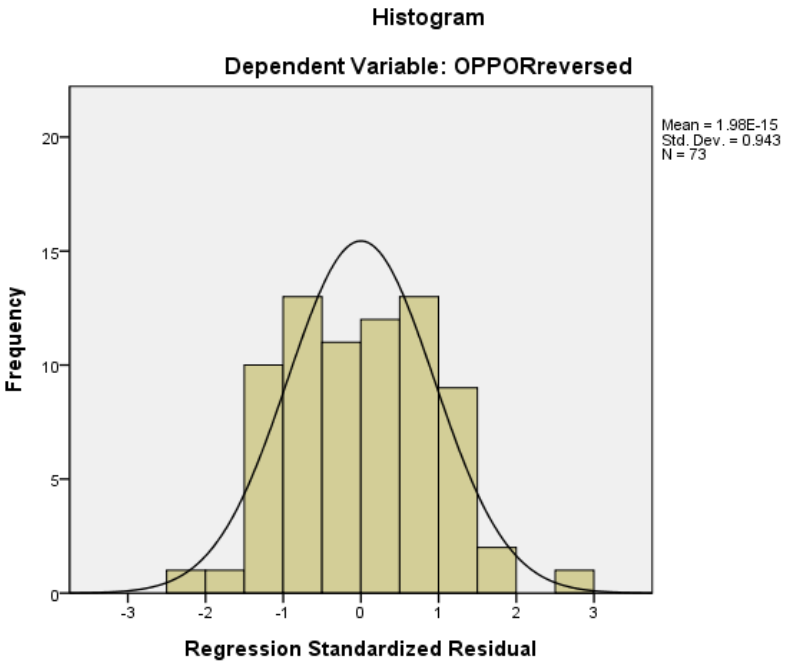
	N	Minimum	Maximum	Mean	Std. Deviation
SALESVOL	73	4.14	8.02	6.0068	.78281
BUYCON	73	3.00	7.00	6.0525	.76066
TRUST	73	1.43	7.00	5.5753	1.43213
REPOWER	73	1.00	7.00	5.5342	1.39525
SUDEV	73	1.50	6.75	4.5411	1.46369
OPPORreversed	73	1.00	7.00	3.7842	1.45733
satisCCXreduraInCC	73	-4.12	3.11	-.0553	.86058
satisCC	73	-3.30	1.20	.0000	1.03949
reduraln	73	-1.40	1.60	.0000	.81086
Valid N (listwise)	73				

APPENDIX 1c Sample characteristics statistics

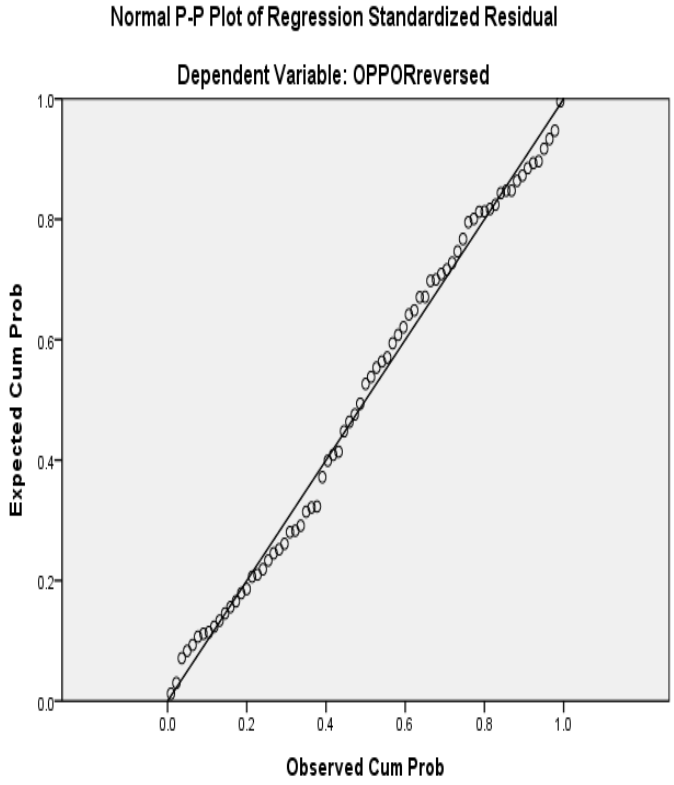
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How long have you been selling to this company (months)	73	18.00	360.00	100.6849	85.51168
How much in terms of weight were you able to sell to this company during the last crop season (Kg)	73	62.50	3050.00	555.3082	525.25274
What is the total size of your farm (Hectares)	73	.40	7.28	2.1953	1.58179
Valid N (listwise)	73				

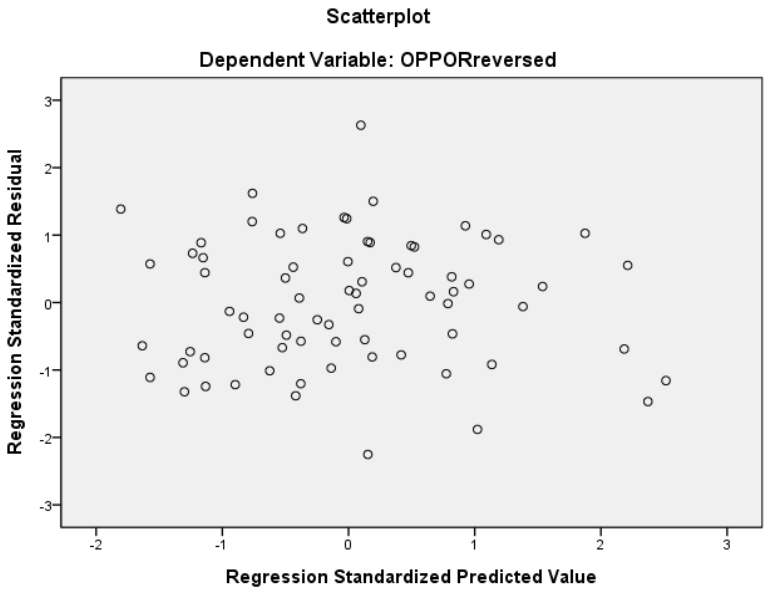
APPENDIX 2a Normality



APPENDIX 2b Normality



APPENDIX 2c Normality



APPENDIX 3 Reliability

Scale: BUYER OPPORTUNISM (OPPOR)

Reliability Statistics

Cronbach's Alpha	N of Items
.670	4

Scale: BUYER CONTROL(BUYCON)

Reliability Statistics

Cronbach's Alpha	N of Items
.837	6

Scale: TRUST(TRUST)

Reliability Statistics

Cronbach's Alpha	N of Items
.946	7

Scale: SUPPLIER SATISFACTION(SATIS)

Reliability Statistics

Cronbach's Alpha	N of Items
.896	10

Scale: RELATIVE POWER(REPOWER)

Reliability Statistics

Cronbach's Alpha	N of Items
.800	2

Scale: TRANSACTION-SPECIFIC SUPPLIER DEVELOPMENT(SUDEV)

Reliability Statistics

Cronbach's Alpha	N of Items
.708	4

APPENDIX 4 Correlation matrix

Correlations

		OPPORreversed	reduraln	Salesvoln	BUYCON	TRUST	SATIS	REPOWER	SUDEV	satisCCXreduralnCC
OPPORreversed	Pearson Correlation	1	-.079	.072	.065	-.372**	-.392**	-.150	-.366**	-.243*
	Sig. (2-tailed)		.509	.546	.584	.001	.001	.205	.001	.038
	N	73	73	73	73	73	73	73	73	73
reduraln	Pearson Correlation	-.079	1	.388**	.098	.017	-.067	.174	-.149	-.095
	Sig. (2-tailed)	.509		.001	.409	.889	.576	.141	.209	.426
	N	73	73	73	73	73	73	73	73	73
Salesvoln	Pearson Correlation	.072	.388**	1	.033	-.089	-.095	-.046	-.085	-.029
	Sig. (2-tailed)	.546	.001		.782	.452	.425	.702	.473	.809
	N	73	73	73	73	73	73	73	73	73
BUYCON	Pearson Correlation	.065	.098	.033	1	.375**	.343**	-.040	.260*	.086
	Sig. (2-tailed)	.584	.409	.782		.001	.003	.738	.026	.472
	N	73	73	73	73	73	73	73	73	73
TRUST	Pearson Correlation	-.372**	.017	-.089	.375**	1	.733**	.055	.443**	-.158
	Sig. (2-tailed)	.001	.889	.452	.001		.000	.644	.000	.182
	N	73	73	73	73	73	73	73	73	73
SATIS	Pearson Correlation	-.392**	-.067	-.095	.343**	.733**	1	.011	.322**	.065
	Sig. (2-tailed)	.001	.576	.425	.003	.000		.926	.005	.587
	N	73	73	73	73	73	73	73	73	73
REPOWER	Pearson Correlation	-.150	.174	-.046	-.040	.055	.011	1	.131	.144
	Sig. (2-tailed)	.205	.141	.702	.738	.644	.926		.269	.223
	N	73	73	73	73	73	73	73	73	73
SUDEV	Pearson Correlation	-.366**	-.149	-.085	.260*	.443**	.322**	.131	1	.037
	Sig. (2-tailed)	.001	.209	.473	.026	.000	.005	.269		.754
	N	73	73	73	73	73	73	73	73	73
satisCCXreduralnCC	Pearson Correlation	-.243*	-.095	-.029	.086	-.158	.065	.144	.037	1
	Sig. (2-tailed)	.038	.426	.809	.472	.182	.587	.223	.754	
	N	73	73	73	73	73	73	73	73	73

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX 5a Without interaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.573[a]	.328	.256	1.25689	.328	4.542	7	65	.000

a. Predictors: (Constant), SUDEV, Salesvoln, REPOWER, BUYCON, SATIS, reduraln, TRUST

b. Dependent Variable: OPPORreversed

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.229	7	7.176	4.542	.000[a]
	Residual	102.685	65	1.580		
	Total	152.914	72			

a. Predictors: (Constant), SUDEV, Salesvoln, REPOWER, BUYCON, SATIS, reduraln, TRUST

b. Dependent Variable: OPPORreversed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.016	1.887		2.658	.010					
	reduraln	-.349	.210	-.194	-1.663	.101	-.079	-.202	-.169	.758	1.320
	Salesvoln	.126	.208	.068	.605	.547	.072	.075	.061	.827	1.209
	BUYCON	.596	.216	.311	2.759	.008	.065	.324	.280	.813	1.230
	TRUST	-.092	.164	-.090	-.559	.578	-.372	-.069	-.057	.396	2.527
	SATIS	-.472	.213	-.337	-2.218	.030	-.392	-.265	-.225	.448	2.230
	REPOWER	-.053	.111	-.051	-.480	.633	-.150	-.059	-.049	.920	1.087
	SUDEV	-.313	.117	-.315	-2.665	.010	-.366	-.314	-.271	.742	1.348

a. Dependent Variable: OPPORreversed

APPENDIX 5b with interaction

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.639[a]	.409	.335	1.18865	.409	5.529	8	64	.000

a. Predictors: (Constant), satisCCXreduraInCC, Salesvoln, SUDEV, REPOWER, BUYCON, SATIS, reduraln, TRUST

b. Dependent Variable: OPPORreversed

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.490	8	7.811	5.529	.000[a]
	Residual	90.424	64	1.413		
	Total	152.914	72			

a. Predictors: (Constant), satisCCXreduraInCC, Salesvoln, SUDEV, REPOWER, BUYCON, SATIS, reduraln, TRUST

b. Dependent Variable: OPPORreversed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.081	1.813		2.251	.028					
	reduraln	-.405	.199	-.225	-2.031	.046	-.079	-.246	-.195	.751	1.332
	Salesvoln	.130	.197	.070	.662	.510	.072	.082	.064	.827	1.209
	BUYCON	.688	.207	.359	3.328	.001	.065	.384	.320	.795	1.258
	TRUST	-.256	.165	-.252	-1.550	.126	-.372	-.190	-.149	.351	2.851
	SATIS	-.315	.208	-.225	-1.512	.135	-.392	-.186	-.145	.419	2.387
	REPOWER	.006	.107	.006	.057	.955	-.150	.007	.005	.887	1.127
	SUDEV	-.291	.111	-.292	-2.610	.011	-.366	-.310	-.251	.738	1.354
	satisCCXreduraInCC	-.523	.177	-.309	-2.946	.004	-.243	-.346	-.283	.842	1.187

a. Dependent Variable: OPPORreversed

APPENDIX 6 Questionnaire

RESEARCH PROJECT ON SUPPLIER SATISFACTION IN BUYER-SELLER RELATIONSHIPS WITHIN THE COCOA INDUSTRY OF GHANA

SURVEY ON FACTORS THAT INFLUENCE SUPPLIER SATISFACTION AND PERFORMANCE IN AGRO-COMMODITY VALUE CHAIN

MOLDE UNIVERSITY COLLEGE
P. O. BOX 2110
N-6402 MOLDE, NORWAY

Tlf: +47 71 21 40 00 Fax: +47 71 21 41 00
Website: www.himolde.no

Dear Respondent,

This survey on Supplier Satisfaction within the Cocoa Industry of Ghana is to find out key factors that influence supplier satisfaction and performance of smallholder cocoa growers of Ghana who are the main suppliers of cocoa beans within the Ghanaian Cocoa Value Chain. The cocoa industry of Ghana is a very important one in that it is a major source of foreign exchange for the economy and provides several direct and indirect jobs and employment opportunities to several others. The result of this research project will help in better understanding of the key factors that need to be looked at in the formulation of policies for the industry apart from the contributions it will make to the academic literature. Findings of this research project will be made available in the form of an executive summary when requested.

Please use the given value scales where **1 represent strongly disagree** up to **7 which represent strongly agree for responding to all questions**, except questions **A1 to A7** where **1 represent strongly agree** up to **7 which represent strongly disagree**. While in case of ranking your performance with respect to other competitive farm businesses, **1 represent worse performance** to **7 which represent better performance.** Kindly circle the value which best describe your answer to any particular question. These answers should best describe your perception of any theme that runs through the questionnaire. The last part of the questionnaire requires filling in the answers to the various questions as well as ticking the answers to some questions as required. In some cases an interviewer will help you in responding to the various questions and your answers will be entered on the questionnaire.

Information collected in this questionnaire is strictly confidential and no individual respondent will be identified. The responses to each question will be aggregated to aid in the final analysis of the information provided in this questionnaire and it is therefore not possible to trace information given in the survey to individual respondents.

Thank you very much for taking the time off your busy schedules to participate in this research, your participation is very much appreciated.

REBECCA GLAVEE-GEO

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A: Please circle the number that represents your views regarding the following statements							
	Strongly disagree						Strongly agree
1. This purchasing clerk has always not provided me with a completely truthful picture of my sales transactions with their company	1	2	3	4	5	6	7
2. This purchasing clerk was not always sincere about the correct weighing of my coca beans	1	2	3	4	5	6	7
3. This buying company always breaches formal or informal agreements concerning timely payment of cash bonuses to their benefits	1	2	3	4	5	6	7
4. This purchasing clerk has benefitted from our relationship to my detriment by undervaluing the weights of cocoa purchased from my farm.	1	2	3	4	5	6	7
5. Sometimes this purchasing clerk lies to me about the quality of my cocoa beans in order to protect their interest	1	2	3	4	5	6	7
6. This purchasing clerk has sometimes promised to correct errors concerning my sales transactions without actually doing them latter	1	2	3	4	5	6	7
7. Sometimes this purchasing clerk alters the weighing scale slightly in order to get what they want	1	2	3	4	5	6	7

B: Please circle the number that represents your views regarding the following statements.

	Strongly disagree						Strongly agree
1. I trust this purchasing clerk that I deal with because he ensures that my cocoa sales are weighed accurately	1	2	3	4	5	6	7
2. I trust this purchasing clerk to sometimes do things on my behalf which I can't do myself like ensuring that correct entries of my sales are done in their books	1	2	3	4	5	6	7
3. In our relationship this purchasing clerk can always be trusted at all times to be very truthful about my sales transactions with their company	1	2	3	4	5	6	7
4. In our relationship this purchasing clerk has high integrity concerning my business dealings with them	1	2	3	4	5	6	7
5. In our relationship this purchasing clerk can be counted on to do what is right always	1	2	3	4	5	6	7
6. This purchasing clerk is like a friend because of his truthfulness	1	2	3	4	5	6	7
7. This purchasing clerk cares for me always by his high levels of accurate record keeping of my sales transactions with their company in my passbook	1	2	3	4	5	6	7

C: Please circle the number that represents your views regarding the following statements.

	Strongly disagree						Strongly agree
1. This buyer determines all aspect of quality assurance such as grading	1	2	3	4	5	6	7
2. This buyer makes sure the quality of the cocoa I sell is ok before taking possession	1	2	3	4	5	6	7
3. This buyer takes control of the product for quality inspection	1	2	3	4	5	6	7
4. This buyer ensures that the quality testis passed	1	2	3	4	5	6	7
5. This buyer has more control of the quality of cocoa I sell to their company	1	2	3	4	5	6	7
6. This buyer always rejects poor quality cocoa sold to their company	1	2	3	4	5	6	7

D: Please circle the number that represents your views regarding the following statements							
	Strongly disagree						Strongly agree
1. My relationship with this buying company has been very beneficial for my farm business	1	2	3	4	5	6	7
2. My relationship with this buying company is very attractive with respect to prompt payment of cash bonuses	1	2	3	4	5	6	7
3. I am very pleased with my decision to sell to this buyer due to the financial benefits that is provided for my farm business	1	2	3	4	5	6	7
4. I would recommend that other farmers sell their products to this buying company	1	2	3	4	5	6	7
5. I am always very satisfied at the price at which I sell my cocoa to this buying company	1	2	3	4	5	6	7
6. I have a favorable relationship with this buying company personnel	1	2	3	4	5	6	7
7. I am satisfied with dealing with this buying company	1	2	3	4	5	6	7
8. Would continue selling to this buying company always because of the good personal relationship I have with their staff	1	2	3	4	5	6	7
9. This buying company is good to do business with	1	2	3	4	5	6	7
10. I am pleased with dealing with this buying company always	1	2	3	4	5	6	7

E: Please circle the number that represents your views regarding the following statements							
	Strongly disagree						Strongly agree
1. This buying company personnel makes visits to help me improve on my performance	1	2	3	4	5	6	7
2. This buying company personnel frequently invites me to discuss issues for performance improvement with respect to grading of my cocoa beans	1	2	3	4	5	6	7
3. This buying company recognizes my farm business for achievements/performance in the form of awards	1	2	3	4	5	6	7
4. This buying company provides my farm business with training/education	1	2	3	4	5	6	7
5. This buying company provides my farm business with equipment or tools for improvement	1	2	3	4	5	6	7
6. This buying company provides my farm business with credit/capital	1	2	3	4	5	6	7
	Much smaller						Much bigger
1. With respect to sales volume during the last twelve months, my farm business sales to this buying company as compared to what they buy from all other farmers is much smaller	1	2	3	4	5	6	7
2. How large do you perceive cash bonuses paid by this buying company to your farm business as compared to what were paid to all other farmers?	1	2	3	4	5	6	7
3. How large do you perceive your dependency on this particular buying company compared to other buying companies within this district?	1	2	3	4	5	6	7
4. How much will it cost you in terms of transportation fare if you want to replace this buying company for another one in a new location	1	2	3	4	5	6	7

F: Please kindly complete the following statements by filing in the blank spaces or ticking where appropriate.

1. How long have you been selling to this company?_____months

2. How much in terms of weight were you able to sell to this company during the last crop season_____tons_____kg

3. What is the total size of your farm_____

4. Please indicate your gender: Female_____Male_____

5. Tick the appropriate age range that best represent your age

   Below 30_____31-40_____ 41-50_____Above 50_____

6. Are you a member of any cooperative farmers association? Yes_____No_____

THANK YOU