Factors Influencing Coffee Growers’ Perception on Coffee Buyers’ Opportunism: A Case of Coffee Buyer – Supplier Relationships in Tanzania

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Abstract
This study examined the relationship between smallholder coffee growers (suppliers) and the licensed buying companies (buyers). The study reports on the factor (Transaction-Specific Supplier development efforts undertaken by the buyer in the supplier) that influences on suppliers’ perceived buyer opportunism. Literature review on Transaction Cost Theory led to formulation of the research model and hypothesis in order to test the proposed relationship between buyer opportunism and transaction-specific supplier development. Data from a survey of seventy three (73) small holder coffee farmers of Tanzania were used. Ordinary Least Square method through SPSS was used to estimate results of the model and assumptions underlying regression analysis were observed.

Empirical findings revealed that transaction-specific supplier development has a significant negative relationship with buyer opportunism. This re-enforces that buyer opportunism should be eradicated in the supply chain of coffee since it reduces both trust and supplier satisfaction. In order for management to overcome buyer opportunism, they need to incorporate transaction-specific supplier development in coffee buyer-seller relationship.

Keywords: Buyer, Supplier, Specific Supplier Development and Opportunism.
Introduction

Buyer-seller relationships have been in existence since humans started trading in goods as well as services and have had developed over time based on trust, friendship and quality of goods/services (Wilson, 1995). Coffee production for export involves relationships between coffee growers and buying agents representing Licensed Buying Companies (LBCs) that are firms authorized under laws of Tanzania to partake in the internal purchase and marketing of coffee within and outside the Tanzanian economy (Parrish et. al, 2005). Thus, the relationship between buying firms and coffee growers is a typical buyer to seller relationship because 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 cash crops and buying firms due to perceived buyer opportunism. Recent reports of resentment by farmers give credence to this perception (Business and Financial Times, 2012; Opoku, 2011).

Recent reports of resentment by farmers through perceived opportunism in form of cheating by the purchasing agents has been a major source of dissatisfaction and worries. Opoku reported on 29th December, 2011 in the Daily Guide newspaper that a section of farmers growing cash crops were angry due to perceived cheating in weighing cash crops by purchasing clerks. The angry farmers claimed to notice disparity in the weights after they weighed their beans from their homes. Thus, they believed that there was manipulation of scales by the purchase clerks. They threatened to smuggle their products to a neighbour country if the practice was not stopped (Opoku, 2011). Findings from a survey of communities in African countries disclosed that deliberate adjustment(s) of weighing scale to favour buyers were widespread in these communities (Business and Financial Times, 2012). In a related report, it was disclosed that cash crops with respective industry regulatory authorities of African Countries threatened to sanction LBCs found guilty of adjusting their weighing scale in order to
The purpose of this study was to investigate the perceived opportunism exhibited by coffee buyers. The study sought to identify key influencing factors of perceived buyer opportunism from coffee suppliers’ perspectives in the buyer to seller relationship. The researcher relied on Transaction Cost Theory as the main theoretical framework to unravel research questions in the study of the said phenomenon. Since it has been noted that research that investigates opportunism basically relies on transaction cost analysis (Lai et al., 2005 cited in Hawkins, 2007), the researcher sought to identify factors under transaction costs to better help explain the phenomenon under study.

Rindfleisch and Heide (1997) summarized a series of studies involving use of transaction cost analysis in sales persons’ opportunism (Andersen, 1988) and franchisee opportunism (John, 1984; Parkhe, 1993) on perception of opportunistic behaviour. Wathne and Heide (2000) also gave examples of industrial cases involving opportunism (Dutta et al., 1994; Klein 1996; Kelly and Kerwin, 1992; Murry and Heide 1998; Walton 1997). However, there is lack of empirical research on buyer opportunism. This study would contribute to the extant literature through formulation and hypothesizes tests based on the empirical setting of coffee supply chain of Tanzania. In this study, the research question sought answer from suppliers’ perspectives, since previous research had looked at supplier opportunism from the buyers’ perspective.

**Theoretical Perspectives**

Transaction Cost theory is said to rely on the concept of opportunism and governance as the main foundation (Rindfleisch et al., 2010). According to Rindfleisch and colleagues (2010), many scholars have recognized that uncertainty and investment of specific assets are main characteristics that influence transaction cost (Andersen, 1985; Heide and John, 1990;
Williamson, 1985). For this reason, the principle of adaptation is used in Transaction Cost Analysis (TCA) in order to forge a harmonious relationship between buyers and sellers.

TCA suggests that monitoring acts as check or control mechanisms, which should lead to reduction in opportunistic behaviour by partners (Alchan and Demsetz, 1992). However, other studies suggest the opposite. For example, results from studies by Barkema (1995) and John (1984) on the way monitoring affects behaviour outcome suggested that monitoring not only controls opportunism but also promotes it due to its reaction effect (Heide, Wathne and Rokkan, 2007).

TCA employs behavioral assumptions that 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 behaviour of economic actors that are “intended rational but only limited” (Simon, 1961; Williamson, 1985). Due to uncertainty/complexity in the business environment in which a 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 lack of complete information. They try to be rational but this is limited by lack of information processing and ability to communicate. Such limitation renders their efforts to be incomplete and their actions not in accordance with their goals thereby making their efforts to be less rational although they did not intend it be so (Simon, 1957 cited in Rindfleisch and Heide, 1997).

Williamson (1975; p.6) defines opportunism as “self-seeking with guile.”. This implies that people try to seek for their own interests. This was the original definition according to Wathne and Heide (2000) who gave examples of opportunistic behaviour as falsification of expense reports;
Factors Influencing Coffee Growers’ Perception on Coffee Buyers’ ... the breach of distribution contracts; bait and stitch tactics; quality shirking; and violation of promotion agreements. Opportunism leads to opportunity cost in form of deals that are foregone (Wathne and Heide, 2000).

In TCA, self-interest is considered as opportunism and that has been the domain of research by Rokkan and Buvik (2003) as well as Heide and John (1990), among others, who studied free riding behaviour in voluntary chains and marketing research, respectively. As a construct, opportunism is seen as a fixed or exogenous condition based on TCA views. Andersen (1988) and John (1984) saw it as an endogenous variable that needs to be explained (Wathne and Heide, 2000).

Identified forms of opportunism are blatant or strong. They involve 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). An opportunistic behaviour is classified 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 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 commitment of a forbidden act or involves actively breaching of a forbidden act. An example is violation of contract stipulations or failure by a party to honour a contract (Wathne and Heide, 2000).

Opportunism can occur under any situation but it can be facilitated by conditions of vulnerability such an information asymmetry problem due to a partner’s attributes or action or by lock-in conditions that represent vulnerability and the party cannot exist the relationship without incurring some lost economic status. In due regard, 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.

**Research Model and Hypothesis**

*Transaction-Specific Supplier development and buyer opportunism:* Transaction-specific supply development entails investments made by a buying firm in its suppliers (Wagner, 2006). Such supplier development efforts are intended to improve performance and the supply chain as a whole when used with other factors like effective communication, involvement of top management from the buyer side and the buyer’s long-term prospect (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 resources towards the supplier development through site visitations, offering of technical assistance, training as well as education and so forth (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 according to Joshi (1998), employment of specific assets by manufacturer(s) or buying firm implies a long-term profit. It implies the buying firm will not act opportunistically towards their suppliers because should they do so, that might lead to supplier hold-ups that will threaten continuation of the exchange business. Suppliers can also behave opportunistically after receiving such investments due to the fact that they know it is non-refundable on 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 expected to be inversely associated with the buyer’s opportunistic behaviour to the supplier (Bucklin and Sengupta 1993; Parkhe, 1993).
Transaction-specific supplier development in terms of provision of credit; training and education; equipment and tools; improved seedlings; and performance improvement initiatives are supposed to help growers to improve upon their performance as well as increase their outputs. Such investments by buyers in the growers do not only help improve the suppliers’ performance but also make the suppliers perceive buying firms as people who cared for them and wanted them to improve on their performance (Glavee-Geo and Buvik, 2012b). Suppliers who are recipient of such interventions see buyers as people who are less opportunistic. In regard, a hypothesis is posited that, \( H1: \text{There is a negative relationship between transaction-specific supplier development and buyer opportunism.} \)

To measure perceived buyer’s opportunism, OPPOR, the approach used in studies by Gundlach et al. (1995); Skarmeas and co-workers (2002) and Provan and Skinner, (1989) were used as a guide. The construct consisted four items negatively worded and anchored from 1, strongly agree to 7, strongly disagree: OPPOR1, ‘purchasing clerk has always not provided me with a completely truthful picture of my sales transactions with their company;’ OPPOR2, ‘purchasing clerk was always insincere about the correct weighting of my coffee;’ OPPOR3, ‘This buying company always breaches formal or informal agreements concerning timely payment of cash bonuses to their benefits;’ OPPOR4, ‘This purchasing clerk has benefited from our relationship to my detriment by undervaluing the weights of coffee purchased from my farm;’ OPPOR5, ‘Sometimes this purchasing clerk lies to me about the quality of my coffee beans in order to protect their interest;’ OPPOR6, ‘This purchasing clerk has sometimes promised to correct errors concerning my sales transactions without actually doing that later;’ and OPPOR7, ‘Sometimes this purchasing clerks alter the weighing scale slightly in order to get what they want.’

Also, to measure Transaction-Specific Supplier Development (SUDEV), studies by Krause (1999) as well as Ghijsen and colleagues. (2009) were
used as a guide. The construct consisted six items positively worded and anchored from 1, strongly disagree to 6, strongly agree. They were phrased as follows: 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 coffee 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;’ and SUDEV6. ‘This buying company provides my farm business with credit/capital.’

In addition to Opportunism and Transaction Specific Supplier development variables, two control variables, annual sales volume (SALEVOL) and relationship durations, were included in the model. The annual sales volume (SALEVOL) was measured as a single item scale adapted from previous research by Heide and Miner (1992). Relationship duration measured in years represented the number of years that a supplier sold to the buyer. The variable was adapted from Heide and Miner (1992). Figure 1.1 shows how the transaction-specific supplier development (SUDEV) influences buyer opportunism (OPPOR). The control variables in the model, sales volume (SALESVOL) and relationship duration (REDURA), are also presented (Figure 1.1).
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Figure 1.1: Research Model

Source: Own Source

Research Methodology
This study used cross-sectional survey and a pilot study of coffee growers was carried out in Kilimanjaro region, Tanzania. Data were collected by administering questionnaire to coffee growers and ordinary the least square method through SPSS was applied to obtain statistical estimates for hypothesis test.

Primary data were collected through a self-administered questionnaire from seventy-three (73) respondents mostly small holder farmers in January, 2012. For this study, secondary data were sourced from the web pages of International Coffee Organization (ICO) and the Tanzania Coffee Board (TCB). Also additional data were accrued from books, journal articles, past theses from the University of Dar es Salaam library and online sources that relate to coffee and transaction cost theory.
A convenience sampling technique was used in the sampling procedure. It involved selection of respondent who happened to be around at the time the researcher was visiting.

**Measurements Assessment and Data Validation**

In this study, the data set was checked for errors such as outliers but that was found to be non-existent. Descriptive statistic was run for the variables. The items were checked for normality and they were found to be acceptable in meeting various assumptions of normality. This is important because when it is not normal, it will compromise results of the correlation and the factor analysis (Hair et. al., 1998).

**Scale Reliability:** Scale reliability for each of the latent construct was assessed. That was done by first, undertaking an exploratory factor analysis (EFA). According to Pallant (2007 p. 179), factor analysis refers to data reduction technique whereby large data sets are taken and a way is found for reducing them into a smaller set of factors or components. Two factors were identified, namely, factor1 Buyer opportunism and factor2 transaction-specific supplier development (SUDEV). Items with factor loadings less than .40 (OPPOR1, OPPOR3, OPPOR7 SUDEV 5 and SUDEV6) were deleted and all cross-loading items were also deleted. Results showed that all factor loadings were between .619 and .810 as follows: OPPOR2 (.653), OPPOR4 (.810), OPPOR5 (.755), OPPOR6 (.646), SUDEV1 (.698), SUDEV2 (.748), SUDEV3 (.720) and SUDEV4 (.619). High factor loading was recognized to be a good indicator of high convergent validity (Hair et. al., 1998).

The Cronbach alpha of each factor was used in assessing 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
each of the questions in a questionnaire will correlate 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). Therefore, it is 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 that will improve measurements for reliability and precision (Mentzer and Flint, 1997). The coefficient of Cronbach alpha of the constructs is shown in Table 1.1 and it indicates that all measurement items forming a construct/factor have internal consistent reliability greater than .70 as recommended by Nunnally (1967).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>No. of Items</th>
<th>Reliability (Cronbach alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer opportunism</td>
<td>OPPOR 2, 4, 5, 6</td>
<td>4</td>
<td>.80</td>
</tr>
<tr>
<td>Transaction-specific supplier</td>
<td>SUDEV 1, 2, 3, 4</td>
<td>4</td>
<td>.71</td>
</tr>
</tbody>
</table>

Data Analysis and Empirical Findings

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

\[
\text{OPPOR} = b_0 + b_1 \text{REDURA} + b_2 \text{SALESVOL} + b_3 \text{SUDEV} + \hat{Y}
\]

Correlation matrix: Correlation matrix presented in Table 1.2 shows
results from the correlation analysis and the corresponding means as well as standard deviations. Results revealed that transaction-specific supplier development (SUDEV) is significantly related to buyer opportunism (OPPOR).

Table 1.2: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>1OPPOR</th>
<th>2REDURA</th>
<th>3SALESVOL</th>
<th>4SUDEV</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1OPPOR</td>
<td>1</td>
<td>0.7</td>
<td>-.15</td>
<td>-.24*</td>
<td>3.78</td>
<td>1.46</td>
</tr>
<tr>
<td>2REDURA</td>
<td>1</td>
<td>1</td>
<td>.39**</td>
<td>.04</td>
<td>.00</td>
<td>.81</td>
</tr>
<tr>
<td>3SALESVOL</td>
<td>1</td>
<td>1</td>
<td>-.03</td>
<td></td>
<td>6.00</td>
<td>.78</td>
</tr>
<tr>
<td>4SUDEV</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>4.54</td>
<td>1.46</td>
</tr>
</tbody>
</table>

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

Regression analysis: Results from hierarchical multiple regression analysis technique are shown in Table 1.3. Results from the study indicated there were no high inter-correlations between independent variables since all tolerance values were greater than .10. A VIF value of 10 or above is an indicator of existence of multicollinearity (Pallant, 2007). The individual VIF also indicates that variables in this study are not highly correlated.
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Table 1.3: Regression analysis: Dependent variable, Buyer Opportunism

<table>
<thead>
<tr>
<th>Hierarchical Regression Model</th>
<th>Independent variables</th>
<th>Unstandardized coefficients</th>
<th>t-value</th>
<th>Tolerance (VIF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²=.33</td>
<td>Constant b₀</td>
<td>5.02</td>
<td>2.66***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REDURA b₁</td>
<td>-.35</td>
<td>-1.66**</td>
<td>.76 (1.32)</td>
</tr>
<tr>
<td></td>
<td>SALESVOL b₂</td>
<td>.13</td>
<td>.61</td>
<td>.83 (1.21)</td>
</tr>
<tr>
<td>R² adj = .26 F (7, 65) = 4.54 p&lt;.001</td>
<td>SUDEV b₃</td>
<td>-.31</td>
<td>-2.67***</td>
<td>.74 (1.35)</td>
</tr>
</tbody>
</table>

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 goodness of fit model showed model fit based on F (3, 69) = 4.54 at significance level of p less than 0.01 and R²= 0.33, R² adj =0.26. An interpretation of the R² adj =0.26 means that 26 percent of variance in the buyer opportunism (OPPOR) construct is explained by the independent variable in the model, whilst the remaining percent of the explanation is done by other non-included variables. The R²=0.33 means 33 percent of variation in buyer opportunism (OPPOR) is explained by variation in the transaction specific supplier development (SUDEV).

From the regression model (Table 1.3), estimates were extracted and inserted into equation to give: OPPOR = 5.02 – 0.351REDURA + 0.13SALESVOL - 0.31 SUDEV. The statistics from Table 1.3 show that relationship duration (REDURA) is negatively associated with buyer opportunism (OPPOR) at a significant level of p less than 05, with b₁ = -.35 and t= -1.66. It means that as the level of relationship duration increases
by one unit whilst the other variables remain unchanged, buyer opportunism decreases by .35 units. The estimation shows that the relationship is significant. The path coefficients of sales volume (SALESVOL) $b_2 = .13$; $t = .61$ is positively associated with buyer opportunism (OPPOR) but this relationship is not significant.

Transaction-specific supplier development (SEDEV) is also negatively associated with buyer opportunism (OPPOR) with $b_3 = -.31$; and $t = -2.67$. It means that as the level of transaction-specific supplier development increases by one unit, whilst the other variables stay the same, buyer opportunism (OPPOR) will decrease by .31. This relationship is also very significant at the level of $p < .01$. Presented statistical results support the hypothesis that there is a negative association between transaction-specific supplier development and buyer opportunism. A significant negative association is observed between buyer opportunism (OPPOR) and transaction-specific supplier development (SUDEV) as hypothesized. The estimate is summarized as $(b_3 = -.31, t = -2.67, p < .01)$.

Discussion and Implications of the Study

In Transaction cost analysis (TCA), it is argued that because buying firms invest in the suppliers, the expectation of normative behaviour by both partners in the relationships makes suppliers perceive buyers less opportunistic than expected. Thus, coffee growers who are suppliers in such relational exchanges perceive buying firms and their purchasing agents less opportunistic. Therefore, deployment of transaction-specific supplier development can be suggested to lead to some normal development and friendships that can influence the way one partner perceives the other like this study seems to suggest. Coffee growers who receive some form of intervention (dedicated transaction-specific assets) from their exchange partners perceive such partners as being less opportunistic than those who did not receive any form of intervention from their partners.
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Availability of supplier development initiatives by buyers contribute to enhancing the buyer seller relationship. This factor contributes to enhancing economic as well as social aspect of the relationship through development of the friendships after repeated exchanges. Satisfactory buyer-seller relationships between coffee suppliers and the buyers then translates into improved buyer seller relationship (Glavee-Geo and Buvik, 2012).

Prior relationship reduces perceived buyer opportunism. However, those relationships are conditional due to 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 coffee 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.

The theoretical implication of this study to Transaction Cost Theory is that the study contributes to extant literature on buyer supplier relationship by focusing on perception of suppliers on buyers’ opportunism. A managerial implication of this study is that managers of buying firms would have to monitor agents who represent them in dealing with suppliers as monitoring acts to check or control mechanisms that lead to reduction in the exercise of opportunism by exchange partners as failure to do so goes to tarnish the image of the buying firm as well. Another managerial implication of this study is that transaction-specific supplier development such as provision of training and inputs would reduce suppliers’ perception on buyers’ opportunism.
References


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