Governance Mechanisms and Buyer Supplier Relationship:
Static and Dynamic Panel Data Evidence from Tunisian Exporting SMEs

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ABSTRACT: This study seeks to understand the effect of transactional and relational governance mechanisms on opportunism induced by the buyer supplier relationship. Using panel data of 386 Tunisian export companies between 2003 and 2008, the analysis shows that transactional as well as relational governance mechanisms are negatively related to the opportunistic behavior of the customer. In order to focus on internal corporate characteristics, the level of debt and the size of the buyer are controlled. This study supports the role of contracts as formal governance tool in reducing inter-firm opportunism which corroborates transaction cost economics. It also confirms some main notions in social exchange theory. The role of trust as relational mechanism in governing the buyer-supplier relationship has been verified. Finally, the findings of this paper sustain the complementarity view toward relational and transactional governance mechanisms. The paper offers insights to executives of companies to govern the buyer-supplier relationship in order to dispel opportunism by using simultaneously transactional and relational mechanisms.

Keywords: Governance, Transactional governance mechanisms, relational governance mechanisms, opportunism, buyer supplier relationship.

JEL Classification: G32, G34, L14

1. Introduction

As stressed by Heide (1994, p. 72), governance is “a multidimensional phenomenon which encompasses the initiation, termination, and ongoing relationship maintenance between a set of parties”. In this sense, governance mechanisms are tools used to arrange any exchange ties. Specially, the relationship between buyers and suppliers must rely on these tools which entail both transactional and relational mechanisms (Poppo and Zenger, 2002). Transactional mechanisms emphasize legal conditions and incentive systems. However, relational mechanisms are those that govern exchanges through moral control and trust (Jap and Anderson, 2003).

During the 1960’s and 1970’s, the relationship between the buyer and the seller was short term with formal transactional negotiations in western economies (Morrissey, 2006). Those characteristics imply a high probability of supplier’s switch or threat by the buyer and a lack of trust between the two parties (Saunders, 1997). Since the 1990’s, a change in the form of the buyer-supplier relationship from the traditional type towards the collaboration one is observed (Hines, 1994; Schmitz, 1995; Holmlund and Kock, 1996; Saunders, 1997). This shift in the trade interaction generates many modifications in the practices of companies by considering social values and trust (Morrissey and Pittaway, 2004). Thus, the company may have other incentives like building its social capital by adopting a trust behavior.

Transactional governance mechanisms are important in restraining opportunism in any repeated economic exchange. However, the relative effectiveness of relational mechanisms in enhancing buyer supplier relationship has yet to be addressed.

Academic literature considers trade credit as an external financing source for small and medium companies in countries with less developed financial markets (Biais and Gollier, 1997; Bougheas et al., 2009, Bellouma, 2011). In fact, most part of company’s sales and purchases in emerging market are done on credit. Particularly, this is the case of small and medium Tunisian companies. In 2008, the part of accounts payable in total liability is 40 percent and accounts receivable
represent 60 percent of total assets. Thus, trade credit is a central component of corporate asset-liability management and Tunisian SMEs have to look for new ways to use trade credit efficiently in order to survive and to restrain opportunism (Bellouma, 2011).

Similarly to the information acquired by banks, trade creditors can use private information that facilitates the grant of credit to their customers. Then, they act like banks which base their decisions on the relationship establishment (Paul, 2007). This relationship lending view of trade credit is confirmed by many authors like Jain (2001) and Paul and Wilson (2007) but it was difficult to validate empirically because of a lack of data about the buyer-supplier relationship. Mainly due to this cause, Petersen and Rajan (1997) use data base of small U.S. companies to test some trade credit theories. The information used is just about either the firm is the provider or the recipient of trade credit and covers only one year.

Besides, several empirical studies have been conducted to observe the effect of enhancing trade credit decision on corporate profitability (Deloof, 2003, Lazaridis and Tryfonidis, 2006 and Uyar, 2009). This study is the first research who aims to understand the impact of relational and transactional governance mechanisms on reducing opportunism between buyers and suppliers. Specially, an empirical study is conducted to observe these link on the basis of Tunisian export SMEs since trade credit decision is crucial for them. Indeed, they have to establish relationship with foreign customers with different culture and habit. Moreover, governance tools have variable efficiency when cultures and risk preferences differ. So, managers have to structure their relationships with their partners by enhancing their coordination mechanisms. In addition to this contribution, this paper tries to explain if governance mechanisms created in developed markets, such as the United States and Western Europe, can be used in emerging market like Tunisia. Although emerging markets are subject to increasing research attention in the field of governance mechanisms, existing studies remain limited. Thus, this paper contributes to governance literature by clarifying the efficiency of governance mechanisms in emerging markets by testing both transactional and relational governance mechanisms. Finally, it should be noted that it is the first paper dealing with governance mechanisms and their impact on opportunism using two kinds of panel data: static and dynamic.

The paper is organized as follows. Section two briefly provides the literature review and presents the hypotheses. Section three describes the methodology adopted. Section four exposes the findings. Finally, section five concerns the conclusion.

2. Literature review and derivation of hypotheses

Governance mechanisms are essential to ensure the stability of buyer–supplier relationships (Benton and Maloni, 2005). Opportunistic behaviors, objectives divergences, operational routines differences and unpredicted market changes are considered as factors implying conflict between buyers and suppliers and as reasons of control (Jap and Anderson, 2003). The relationship development between supply chain members can be realized through transactional and relational governance tools.

In this section, theoretical and empirical researches on transactional mechanisms are first exposed. Then, existing literature of relational mechanisms is presented. On the basis of this overview, testable hypotheses are derived.

**Transactional mechanisms: The formal governance tools in the buyer-supplier dyads**

According to transaction costs analysis, a contract between the buyer and its customer clarifies the transactions, the price, the agreements and safeguards. This theory presumes that the contract terms (quantity, quality, and duration) are well specified (Williamson, 1999). The system guiding the transactions between the buyer and the supplier is monitoring which incites both parties to reduce the information asymmetry and the opportunistic behaviors. Consequently, the absence of information asymmetry may mitigate conflicts between the buyer and the supplier, prevent opportunism and prompt mutual trust.

Transactional mechanisms are considered by Liu et al. (2010) as an ex ante governance tool used in monitoring buyer-supplier relationship through contractual clauses and bilateral transaction-specific investments (Luo, 2007). Specially, contractual guidance implies a legal framework to enhance relationship performance perceived by the partners involved.

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1 Statistics from the Tunisian consulting Group “Synergia”.
As argued by Williamson (1985), a well-specified contract states the rights and obligations of each party and how to face future situations such trading practices or penalties. Thus, contracts make the relationship explicit and clear. They prevent opportunism through behavioral boundaries and legal forces (Liu et al., 2010). Otherwise, some psychology theorists argue that contracts accentuate control and may indicate mistrust between the two parties. In other words, in uncertain situations, contracts may induce opportunism.

Given the asymmetric information, contracts tend to be incomplete (Grossman and Hart, 1980) and cannot restrain opportunism. Thus, transaction-specific investment can be used as an incentive instrument in monitoring relationships. The transaction specific investment can be tangible (specific tool or equipment) or intangible (specific knowledge or capability) (Jap and Anderson, 2003). This investment increases partners' interdependence on each other. It has considerable value when bilateral relationship between buyer and seller is not interrupted since it is difficult to redeploy outside a particular relationship (Lohtia et al., 1994). Transaction specific investment reduces the opportunistic behavior of each party and provides incentives to continue the partnership and to promote party’s accountability (Kotabe and al., 2003). In the same way, it is likely to serve the firm's competitive advantages since it creates value for the partners in the form of cost saving and profit enhancement.

Based on the above discussion, I hypothesize:

**Hypothesis I.** The use of transactional mechanisms (contract or transaction-specific investments) reduces opportunism in buyer–supplier dyads.

**Relational mechanisms: An informal governance mechanism tool in the buyer supplier dyads**

In addition to the transactional governance mechanisms, relational ones have been recently considered as useful to inhibit opportunism and to enhance cooperation in buyer–supplier exchanges (Kim, 2000, Liu et al. 2010). According to social exchange theory, opportunistic incentive of one partner is restrained by the ostracism by the other (Levintal and Fichman, 1988). Thus, relational governance mechanisms generate norms of social connections embedding authoritative bonds in limiting opportunism\(^2\). These social links increase the commitment of the parties and imply a cooperative relationship through shared norms and values (Seabright et al., 1992). Increasing harmony between the buyer and the seller changes self-centered behavior to solidarity behavior.

Relational mechanisms cover relational norms and trust that govern buyer supplier relationship by creating a social environment (Luo, 2007). As the relationship lasts, relational norms and trust encourage the development of relationship-specific opportunities. Consequently, the buyer and the customer can reduce transaction cost and opportunism. Relational norms refer to behavioral anticipations shared by a group in order to reach a collective goal, to solve problems and to accomplish performance objectives.

The fulfillment of these norms appears from the exchange of useful information between the buyer and the supplier, the solvency of conflicts and problems, the discussion through joint consultations… (Poppo and Zenger, 2002).

Mian and Smith (1992) suggest that trade creditors accumulate private information over time about their customers. The authors note that trade creditors are relationship lenders. The collection of non-public information allows suppliers to better appreciate the buyer’s risk profile and moderate adverse selection and moral hazard problems in the trade credit process. This type of information characterized by Berger and Udell (2002) and Bellouma et al. (2009) as soft information is acquired by the seller about the buyer through direct contact. Thus, information exchange reduces asymmetric information and supports the harmonization of interests. Socialization improves exchange outputs through the use of this private information flows rather than resorting to contracts. Companies can support their relationships with customers through many socialization plans, such as enhancing technical efficiency and increasing assistance. The socialization efforts boost the trust between the channel partners and reduce possible conflict.

Thus, trust ameliorates the cooperative atmosphere between the buyer and the supplier through developing honesty. Besides, the exchange partners are assured that the other doesn’t behave opportunistically such lying, cheating or not fully revealing information (Dyer and Chu, 2003).

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\(^2\) Opportunism (cheating, violating an agreement, hiding information…) increases transaction costs and limits the development of trust (John, 1984).
Therefore, relational governance mechanisms can be efficient when the buyer and the supplier respect each other rights, benefits and responsibilities.

In light of the above, I propose:

**Hypothesis 2.** The use of relational mechanisms (relational norms or trust) reduces opportunism in buyer–supplier dyads.

### Relative importance of transactional and relational mechanisms

Liu et al. (2010) argued that transactional mechanisms are more effective than relational ones. In fact, relational mechanisms have limits on curtailing opportunism due to the lack of formal guidance of buyer supplier relationship. For instance, too much trust will either reduce the commitment of one party to monitor the other or increase the opportunism of one partner (Jeffries and Reed, 2000). Besides, transaction specific investment may be more efficient in governing repeated exchange (Williamson, 1983). Indeed, in the case of buyer supplier relationship, the partner will lose the advantage of transaction specific investment if he seeks only its own gain (Luo, 2007).

The high number of contracts terms and transaction specific investment reflect the importance of the exchange relationship for the two parties (Child and Tse, 2001). They also reveal, in an ex ante perspective, the capacity of the buyer and supplier to solve problems (Luo, 2002). However, highly stipulated contracts may handicap the commitment of the buyer and the supplier for gaining new opportunities (Bernheim and Whinston, 1998). Particularly, unanticipated eventualities may occur after the contract is signed. According to social exchange theory, opportunism can be reduced by trust since transaction specific governance mechanisms can be costly in the case of socially embedded economic activities. Thus, the flexibility of relational mechanisms will support the buyer and the supplier to enhance their exchange relationship beyond the specification of the contracts. With efficient relational mechanisms, partners are able to respond to the environment uncertainty and to deal with unpredicted problems (Paulraj et al., 2008). Under the governance of relational mechanisms, the buyer and the supplier improve communication, information share and solidarity. This is even more perceptible in emerging markets where economic and institutional environments are changing rapidly that no contracts can practically specify all eventualities (Luo, 2007).

I finally expect that:

**Hypothesis 3.** Relational mechanisms (relational norms or trust) are more effective than contractual mechanisms (contracts or transaction-specific investments) in reducing opportunism.

### 3. Methodology

The purpose of this study is to identify the impact of transactional and relational mechanisms on reducing opportunism between the buyer and the supplier with reference to Tunisia. In this section, we present the data collected, the variables used, the hypothesis tested and the statistical techniques applied in the investigation.

**Data collection and sample characteristics**

The data were obtained from Tunisian Export Promotion Center (CEPEX). The choice of Export companies can be explained by the importance of trade credit for them and the competitive environment in which they operate. The data gathered are based on financial statements of 410 export companies dressed by the CEPEX. The information coming from the annual financial statements isn’t sufficient. In order to scrutinize seriously the impact of relational and transactional mechanisms on reducing the opportunism between the buyer and the supplier; I designed a questionnaire to describe their relationship along the period 2003-2008. With three reminders (calls, emails and re-mailing), I received 394 returned questionnaires of which 386 were complete.

Specifically, 136 companies work at the food industry, 96 product construction materials, 104 run textile business, 24 operate in metal industry and 22 have a service activity. The panel is mainly composed of limited liability companies (67.8%). The limited corporations represent only 32.2%. 20.2% of companies in the sample export over 50% of their products towards four foreign markets.

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3 The CEPEX is a governmental organism which offers assistance for export Tunisian companies.
(U.S., Asia, Europe and Arabic Maghreb union). 53.2% employ less than 50 workers. Thus, they are considered as small and medium-sized companies.4

Variables of the analysis
The dependent variable of the study is: Days of Sales Outstanding. Days of sales outstanding reflects the average number of days conceding by the supplier to its customer in order to collect revenue from sale. It designs the length of trade credit maturity. It’s measured as accounts receivable x 365/sales (Deloof, 2003). A low number of days of sales outstanding shows that the company collects its accounts receivable in fewer days. However, a high number indicates that a company grants its customer a credit and takes longer time to gather money. Besides, a high DSO may be a sign of the opportunism of the customer who aims to maximize its own benefits.

The independent variables included in the study are divided into three categories:

Variables relating to transactional governance mechanisms
Contract. Contract is a dummy variable which takes 1 if the respondent affirms that his relationship with the customers is governed by formal contracts and 0 otherwise. Transaction Specific Investment. Transaction specific investment is a dummy variable which takes 1 if the respondent affirms that the company has made significant investment for its customer such as providing specific products or facilities in distribution and 0 otherwise.

Variables relating to relational governance mechanisms
Social Contact. The social contact is the first relational governance mechanism. It is a dummy variable which takes 1 if the respondent replied “high” to the question: “How do you consider social contact with your customer in deciding trade credit conditions?” and 0 otherwise.

Turnover. The Turnover of the export company’s credit manager addresses directly his role in the production of soft information. It is a dummy variable which takes 1 if the respondent replied “high” to the question: “is the number of credit managers dealing with your customers is high or low?” and 0 otherwise.

Control variables
Size. The size of the company is measured by the natural logarithm of sales in million Tunisian dinars (TND) (1USD = 1.4386TND). Financial and organizational restrictions of the companies may limit the period of trade credit for suppliers.

Debt Ratio. The debt ratio (Short Term Loans /Total Assets). It indicates the proportion of company’s short term debt relatively to its assets. It gives an idea about the company’s ability to cover its short term assets and specially its accounts receivable.

Data analysis and results
Table 1 reports the average, the standard deviation, the minimum and maximum values of the variables included in the study.

In the panel used, companies collect their cash from receivables after an average of 97.943 days with standard deviation of 40.608 days and a minimum of 15.546 days. The mean value of the company size is 0.891 with a standard deviation of 0.492. The minimum value is -0.36 and the maximum is 2.336. The average of debt ratio is 38.1 % with a standard deviation of 13.5%. The minimum level of debt is 10% which may explain the incapacity of the companies of the study to access to external financing. 80% of the companies find that the social contact between them and their customer is important to obtain specific information. The turnover of credit manager is not important in our sample. In fact, 23.4% of the companies have a high turnover of their credit managers in the period of the study. 57.51% of the companies find that their relationship with their customers is based on trust. However, 72.62% of the companies govern their relationship with their customers by using explicit contracts. Finally, only 5.31% of the companies use transaction specific investment as formal governance mechanisms to develop their relationship with the buyers. In order to capture the impact of relational and contractual governance mechanisms on reducing opportunism between buyers and suppliers, I use static and dynamic panel data regressions to identify micro-level information imperceptible in cross section or time series data. The static model with panel data is presented as follows:

4 “A wide consensus among national officials seems to exist on a non-official definition of SMEs as those enterprises employing between 10 and 100 workers. This definition, however, is not stated clearly, nor it appears in any official document” Di Tommaso et al. (2001: 44)
Y_{it} = \alpha_i + \beta X_{k,i,t} + \Delta_t + \varepsilon_{it} \quad (1)

Where the subscripts \( i \) and \( t \) represent respectively firm and time period respectively, \( Y_{it} \) is the vector of dependant variable, \( X_{k,i,t} \) is the vector of explanatory variables, \( \beta \) is the vector of parameters to be estimated, \( \alpha_i \) is the individual effect which is constant for firm \( i \) over \( t \), \( \Delta_t \) is the time effect which is constant for the period \( t \) over \( i \) and \( \varepsilon_{it} \) the term error is (iid).

Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days of sales outstanding</td>
<td>97.493</td>
<td>40.608</td>
<td>15.546</td>
<td>199.485</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>0.381</td>
<td>0.135</td>
<td>0.1</td>
<td>0.93</td>
</tr>
<tr>
<td>Size</td>
<td>0.891</td>
<td>0.492</td>
<td>-0.36</td>
<td>2.336</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social contact=0</td>
<td>462</td>
<td>20</td>
</tr>
<tr>
<td>Social contact=1</td>
<td>1854</td>
<td>80</td>
</tr>
<tr>
<td>Turnover= 0</td>
<td>1774</td>
<td>76.6</td>
</tr>
<tr>
<td>Turnover</td>
<td>542</td>
<td>23.4</td>
</tr>
<tr>
<td>Trust=0</td>
<td>984</td>
<td>42.48</td>
</tr>
<tr>
<td>Trust= 1</td>
<td>1332</td>
<td>57.51</td>
</tr>
<tr>
<td>Contract=0</td>
<td>634</td>
<td>27.38</td>
</tr>
<tr>
<td>Contract=1</td>
<td>1682</td>
<td>72.62</td>
</tr>
<tr>
<td>Transaction specific investment =0</td>
<td>2193</td>
<td>94.70</td>
</tr>
<tr>
<td>Transaction specific investment=1</td>
<td>123</td>
<td>5.31</td>
</tr>
</tbody>
</table>

To estimate the model (1), the fixed effects model and the random effects model are used. In a fixed effects specification, \( \alpha_i \) corresponds to the individual cross-sectional unit. The Chow test is performed to confirm the fixed effects model (Hsiao, 1986). In other words, the hypothesis that the individual coefficients \( \alpha_i \) are not all equal will to be proved. This corresponds to test the null hypothesis \( H_0: \alpha_1 = ... = \alpha_N = \alpha \). To validate the existence of significant heterogeneity across firms, the alternative hypothesis must be accepted. Conversely, in a random effects model, \( \alpha_i \) doesn’t represent an individual cross-sectional unit and the stochastic error term \( \varepsilon_{it} \) becomes \( \alpha_i + \nu_{it} \). The generally accepted strategy of choosing between fixed and random effects is running a Hausman test (1978) under the null hypothesis \( E(\alpha_i/\bar{x}_i) = 0 \). If the null hypothesis is rejected, the effects are considered fixed. However, if it is accepted, the effects are random.

Besides, the buyer-supplier relationship should be modeled by taking into account its dynamic nature. The general form of the model is:

\[ y_{it} = \alpha_i + \beta' x_{it} + u_i + \nu_{it} \quad (2) \]

Where the subscripts \( i \) and \( t \) represent firm and time period respectively, \( Y_{it} \) is the vector of dependant variable, \( Y_{i,t-1} \) is the vector of the lagged dependant variable, \( X_{k,i,t} \) is the vector of explanatory variables, \( \beta' \) is the vector of parameters to be estimated, \( \alpha_i \) is the individual effect which is constant for firm \( i \) over \( t \), \( u_i \) is firm-specific random effects and \( \nu_{it} \) the overall errors. The independent variables and the lagged dependent variable are correlated. Therefore, the estimators provided by the pooled Ordinary Least squares (OLS) are inconsistent and biased. To obtain consistent estimators, the Generalized Method of Moments technique (GMM) in first-differences is used as Arellano and Bond (1991). They proceed by first differencing the equation (1) to remove \( u_i \). All the lagged variables are used as instruments in the first-differenced equation.

\[ y_{it} - y_{i,t-1} = \alpha_i (y_{i,t-1} - y_{i,t-2}) + \beta' (x_{it} - x_{i,t-1}) + (u_i, u_{i,t}) + (\nu_{it}, \nu_{it-1}) \quad (3) \]

As noted by the authors, the new error term \( (\nu_{it}, \nu_{it-1}) \) is correlated with the lagged dependent variable \( (y_{i,t-1}, y_{i,t-2}) \). The one-step estimator supposes homoskedastic errors while the two-step estimator constructs heteroskedasticity-consistent standard errors by using the first-step errors. According to Arellano and Bond (1991), although the homoskedasticity of the error terms, the two-step estimators are more proficient than the one-step when the number of firms is important. The efficiency of the GMM estimator depends on the effectiveness of the instruments and the uncorrelation of the error terms. Thus, the Sargan test of over-identifying restrictions is done.
4. Empirical results

In this subsection, the results presented in table 2 are discussed. The Chow test is significant at 1% and proves the firm-specific effects. The Hausman test shows that the fixed effect model is more suitable than the random effect model. Only the size of Tunisian companies has a negative effect on days of sales outstanding. This result entails that larger companies give fewer days for their customers to pay their purchases. Accordingly, the small sized companies are more likely to be subject to the opportunistic behavior of their customers.

Table 2: Static Panel Data versus Dynamic Panel Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>Static Panel Data</th>
<th>Dynamic Panel Data</th>
<th>One step</th>
<th>Two step</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed Effect</td>
<td>Random Effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days of sales outstanding</td>
<td>-</td>
<td>-</td>
<td>0.273 (3.00)***</td>
<td>0.300 (2.65)***</td>
</tr>
<tr>
<td>-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td>-0.007 (-0.31)</td>
<td>-0.011 (-0.62)</td>
<td>-0.089 (-3.75)</td>
<td>-32.101 (-11.86)**</td>
</tr>
<tr>
<td>Transaction</td>
<td>-0.089 (-0.44)</td>
<td>-0.017 (-0.51)</td>
<td>-0.056 (-0.62)</td>
<td>-0.023 (-0.34)</td>
</tr>
<tr>
<td>Specific Investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt Ratio</td>
<td>-0.125 (-0.07)</td>
<td>-0.438 (-0.12)</td>
<td>-57.718 (-1.25)*</td>
<td>-120.373 (-2.05)**</td>
</tr>
<tr>
<td>Size</td>
<td>-42.090 (-1.86)*</td>
<td>-0.449 (-0.44)</td>
<td>-30.714 (-1.60)</td>
<td>-43.625 (-1.78)*</td>
</tr>
<tr>
<td>Social Contact</td>
<td>0.867 (-0.72)</td>
<td>-0.880 (-0.74)</td>
<td>45.156 (2.21)</td>
<td>-75.388 (3.00)***</td>
</tr>
<tr>
<td>Turnover</td>
<td>0.052 (0.05)</td>
<td>0.058 (-0.31)</td>
<td>-8.030 (-0.88)</td>
<td>-6.240 (-0.31)</td>
</tr>
<tr>
<td>Constant</td>
<td>4.89 *** (44.27)***</td>
<td>97.650 (33.70)***</td>
<td>162.948 (3.54)***</td>
<td>236.860 (3.71)***</td>
</tr>
</tbody>
</table>

Regarding the generalized moment method (GMM), the Sargan test implies that the GMM (two-step) is retained and the GMM (one-step) is rejected. The last days of sales outstanding is significant and positively affects the current one. This reflects that Tunisian managers do not follow stable trade credit policies. Besides, the constant term is always significant and positive which reveals the incapacity of the companies included in the sample to reduce their days of sales outstanding and to eliminate totally the opportunism generated. Regarding to the formal governance mechanisms, significant negative relationships were found between contracts and opportunism. This result lends support to the first hypothesis and corroborates transaction cost theory. Contract has a control effect for partners involved in a buyer-supplier relationship and facing intensifying competition due to the export uncertainty. Thus, Tunisian export companies need to adjust their corporate strategies to...
respond to changes in the foreign environment. Similarly, social contact as a relational governance mechanism exerts a significant and negative effect on days of sales outstanding. This result supports the second hypothesis and demonstrates the social exchange theory’s relevance in explicating the buyer supplier governance. A high level of social contact is related with an important production of private information and an atmosphere of trust. Thus, rich mutual information exchanges between the foreign customer and the Tunisian buyer could increase the latter’s capacity to react rapidly to eventual changes.

Once trust is established, the customers may be reluctant to behave opportunistically by delaying reimbursement. Overall, transactional and relational governance mechanisms are efficient tools for restraining opportunism in a supply chain. Thus, this finding supports that the formal and informal governance systems function as complements. This complementarity is harmonious with the economic sociology view. In fact, when economic actions are implanted in social structure, relational and transactional governance mechanisms reciprocally remedy each other’s insufficiency. More precisely, transactional mechanisms offer an institutional support for relational mechanisms, whereas relational mechanisms provide incentives for performing transactional mechanisms. Thus, additional advantages are induced by a suitable arrangement between contractual and relational governance mechanisms. Besides, relational governance mechanisms emerge if there are guarantees that each party behaves in the interest of the other.

Turning to the debt ratio, the statistically significant coefficient suggests that the financial condition of the seller has negative effect on the number of days granted to its customer. More precisely, when the supplier has a large leverage, he limits the customers’ opportunism by restricting the number of days of sales outstanding in order to collect liquidity quickly. Finally, the size is negatively correlated to the dependant variable as explained for the fixed effect model.

To further test the relative importance of transactional and relational governance mechanisms on opportunism, the semi-partial correlation is performed.

**Table 3: Semi-partial correlation**

<table>
<thead>
<tr>
<th></th>
<th>Days of Sales Outstanding</th>
<th>Part correlation</th>
<th>Square part correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transactional governance mechanisms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td>-0.306</td>
<td>0.094</td>
<td></td>
</tr>
<tr>
<td>Transaction specific investment</td>
<td>-0.111</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td><strong>Relational governance mechanisms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social contract</td>
<td>-0.487</td>
<td>0.237</td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td>-0.209</td>
<td>0.044</td>
<td></td>
</tr>
</tbody>
</table>

As reported in table 3, the sum of the contribution of contracts and transaction-specific investments to anti-opportunism equals to 0.106 (0.094+0.012). Similarly, the contribution of relational governance mechanisms to anti-opportunism equals to 0.281 (0.237+0.044). Therefore, the effect of relational governance mechanisms on opportunism is stronger than that of transactional governance mechanisms. The third hypothesis of the analysis is supported. Trust habitually occurs when the buyer supplier relationship is sustained for long. Currently, Tunisia is characterized by an economic and social transformation and export Tunisian companies still use primary business habits in managing informally relationships with their partners. However, cultural divergence and foreign challenges give incites to Tunisian export companies to effectively manage channel relationships on the basis of transactional mechanisms.

5. **Conclusion**

The main objective of this paper was the study of transactional and relational governance mechanisms effects’ on opportunism induced through the buyer and the supplier partnership. As companies look for more advantages to face competitive environment, the improvement of the
relationship between buyers and suppliers is progressively more vital. Besides, trade practices in emerging economies are mainly marked by inter-firm relationships and necessitate a critical development. Superior relationships between the buyer and the supplier allow companies to grow in a dynamic marketplace and to generate considerable returns for the two parties. Nevertheless, buyer-supplier dyads imply opportunism and conflict. Thus, governing such relationships on the basis of formal and informal mechanisms is a crucial task for managers to improve the exchange process. Through the analysis of 386 companies, over a six-year period from 2003 to 2008, the transactional governance mechanisms (contracts) and relational governance mechanisms (social contact) appear both important in curtailing opportunism of the foreign customer. This work confirms that the two governance mechanisms are complementary. However, relational aspects have more significant effect on opportunism than the contracting process. In managerial terms, there is evidence that transactional governance mechanisms are crucial but not sufficient to curtail opportunistic behavior in the foreign market. Another lesson learned from this paper, is relevant to buyer supplier operations in emerging and developing economies. As many of these economies, like Tunisia, have exchange relationships with foreign customers. Thus, the issue of managing these ties is important to both academics and practitioners. Finally, the paper shows that the exchange relationship between the two parties does not always operate the way that the conventional view expects it. In Tunisia, relational ties used to be seen as more effective than contracts. In this study, contracts are found to apply a significant effect on limiting opportunism.

In the light of these findings, this study has provided a road map of promising avenues for further research on other emerging markets. However, there is much work left. For example, future investigation may introduce other governance mechanisms such as communication effectiveness and goal congruence. Besides, the study can be duplicated in other contexts in both developed Western markets and emerging markets to highlight knowledge about international relationship channels. In fact, the contingency effects of the buyer and the seller preferences may vary with cultural and economic environments.

References
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