

Determinants of contract renewals in business-to-business relationships

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Determinants
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Abstract

Purpose – This paper aims to analyze the underlying factors of contract renewals in business-to-business (B2B) contracts.

Design/methodology/approach – The authors build a unique data set with 296 contracts signed between a major firm supplying petrochemical goods and its 128 customers between 2013 and 2016. They use Insider Econometrics as their methodological approach.

Findings – The econometric results suggest that contracts involving higher volume of trade, higher levels of dedicated assets representing seller's specific investments in each transaction, and contracts comprising more than one product present an increased likelihood of being renewed.

Research limitations/implications – Although limited to a single organization, this paper contributes to management theories focused on buyer–supplier relationships in which coordination between interdependent parties is required.

Practical implications – Practitioners engaged in B2B relationships may benefit from the findings to shape their bargaining strategies in contexts of high levels of asset specificity and bilateral dependence.

Originality/value – This paper contribute to theories related to the strategic negotiation between buyers and suppliers by emphasizing the importance of asset specificity in a nuanced and multifaceted fashion, by highlighting aspects related to resource dependency, and idiosyncratic characteristics on contract renewal.

Keywords Transaction costs, Buyer–supplier relationships, B2B contracts, Contracts renewal

Paper type Research paper



Introduction

Understanding the underlying factors of contract renewal between buyers and suppliers in business-to-business (B2B) settings is crucial for the contracting parties. Indeed, organizations have been setting their sights on supply-chain features to craft value-creating strategies and deal not only with the bargain procedures but also with the extant monitoring costs in buyer–supplier relationships.

On the one hand, renewing a B2B contract is typically considered as a success indicator from the supplier side, as oftentimes the buyer side decides for the continuity, or not, of the relationship. Identifying the features that increase the probability of contract renewal is essential to define the supplier's long-range planning specially in capital-



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intensive industries. On the other hand, from the buyer side, contract renewal may be desirable when keeping the supplier implies in lower operational hazards and superior efficiency standards.

The existing literature in the management and economics fields suggests that some contingencies may affect power and bargain asymmetries of the parties involved in contract renegotiations (Arino & Reuer, 2004). Suppliers may benefit when the goods or services are short in supply and/or in the presence of resource (Hillman *et al.*, 2009). Changes in organization's external environment, such as exogenous shocks affecting the availability of products, are prone to influence the supply chain stability, thus shaping the willingness to pay for goods and services and influencing the dynamics of contract renewal (Blalock & Veloso, 2007). Equally, the literature emphasizes the importance of the characteristics of both buyers and suppliers to determine contract renewal when specific investments are at stake (Chong *et al.*, 2015; Crocker & Masten, 1996).

However, the strategy literature still does not offer many evidences on the determinants of contract renewal in B2B settings. In this paper, we assess the factors affecting the dynamics of contract renewal in buyer-supplier relationships in the manufacturing realm. We take into account the characteristics of buyers (or customers) and the characteristics of the contractual relationship between these buyers and a major supplier (or seller), thus enabling us to identify which aspects contribute to the increase (or decrease) of contract renewal.

For that, we performed several analyses with a hand-crafted and unique database containing 296 contracts (with an average term of 5 years) signed between 128 buyers and a major supplier of utility services in Brazil between 2013 and 2016. Our primary sources from organization's internal micro data enable us to understand some organizational phenomena not easily observed by external actors. The data we use in our paper are not available in public sources due to confidentiality reasons. Our approach has recently coined under the "insider econometrics" tradition, which has been used not only in economics but also in management research (Ann *et al.*, 2004; Teodorovicz *et al.*, 2019).

Overall, our econometric analysis suggests that higher trade volumes involved in the transaction are associated to an increase in the probability of renewing a contract. In this case, contracting parties involved in a situation of bilateral dependency may benefit from existing economies of scale present in the contractual relationship. Similarly, the existence of a greater variety of products transacted between the parties (economics of scope) increases the odds of contract renewal. In addition, we demonstrate that the presence of asset specificity (dedicated assets) contributes to increase the probability of renewing a B2B contract in capital-intensive industries. In our context, this occurs when the supplier is the closest supplier, regardless of the geographic distance. By unveiling these patterns, our paper contributes to management theories related to buyer-supplier relationships within a strategic perspective (Lumineau & Henderson, 2012), notably within a context of investments with high asset specificity levels (Henry Xie *et al.*, 2010; Hoskisson *et al.*, 2018), in which coordination between interdependent parties is required (Oliveira & Lumineau, 2017). In addition, practitioners engaged in B2B relationships may benefit from our findings to shape their bargaining strategies.

Contract renewal in business-to-business relationships

Within a B2B relationship, where a firm supplies goods or services to other firm, the use of contracts to design, adjust, measure or monitor the interactions is a standard practice in settings containing transaction costs and resource dependency (Hillman *et al.*, 2009). Conflicts between contracting organizations during both negotiation and contract

execution stages along with external contingencies tend to shape organizational performance.

On the one hand, the purpose of B2B contracts is to avoid price volatility and preserve the parties involved. On the other hand, contracts foresee the required volumes to be traded so as the corresponding prices. In resource-dependency settings, suppliers rely on orders from buyers, whereas buyers depend on the supply of the products produced by the supplier to fulfill a given task. In this matter, power asymmetries present in the contractual relationships are likely to shape contractual performance (Casciaro & Piskorski, 2005).

Contracts play a leading role in protecting suppliers embedded in industries characterized by economies of scale and scope. Contracts are particularly important to assure supply-chain stability and reduce the volatility that may arise from competitors' actions. Safeguards are even more necessary in the presence of high levels of asset specificity (Williamson, 1991). To preserve efficiency from economies of scale and scope, the continuity of contracts, that is, their renewal at the initially foreseen termination date is a key for maintaining production and trade volumes, hence influencing supply costs and financial performance for both contracting parties.

Although contracts may preserve parties from the hazards of the external environment, the continuity of the exchange is not taken for granted, regardless of the existing perceptions or proven evidence of positive and adequate contractual performance. Oftentimes, contracting parties revisit contractual clauses to align transaction attributes with the competitive landscape, with other external contingencies, or just appropriate more value from the focused transaction. Nevertheless, bilateral dependency resulting from transaction-specific investments restricts alternative uses of the assets and may refrain an opportunistic behavior (Williamson, 1991). If on the one hand the lack of alternative suppliers (or buyers) imposed by specific investments is likely to stimulate contract renewal; on the other hand, existing asymmetries between the exchanging parties may create tensions in the presence of specific assets. Buyers, for instance, can be in a position to coerce suppliers to obtain discounts or more favorable delivery conditions, impose their preferences and capture more value from idiosyncratic investments to the contractual relationships involving specific investments, which are common in B2B settings (Morales Antigueira *et al.*, 2007). Locational specificities along with physical and human assets are also sources of conflict and may potentially engender transaction costs in B2B supply chains (Cabral, 2004).

In parallel, some studies in the industrial marketing field highlight the role of buyer's loyalty and their propensity to extend contractual relationships (Coil *et al.*, 2007). Buyers take into account satisfaction, value creation, relationship quality and service/product quality explanations in their decisions to continue a contract relationship, whereas sellers posit financial performance and competitive advantage resulting from transaction continuity as main drivers of contract renewal (Williams *et al.*, 2011). Figure 1 highlights such cost-benefit reasoning in the decision of extending contractual relationships in B2B settings.

In the next section, we provide some testable hypotheses relating features of contractual relationships and the propensity to renew contracts in B2B settings.

Hypotheses

As mentioned before, we assess how buyer's features and characteristics of the buyer-supplier relationships affect contract renewal. Although our approach dialogues with recent literature on interorganizational relations (Lumineau, 2017), we do not explore relational and trust dimensions on the decision of continuing contractual relationships in B2B settings

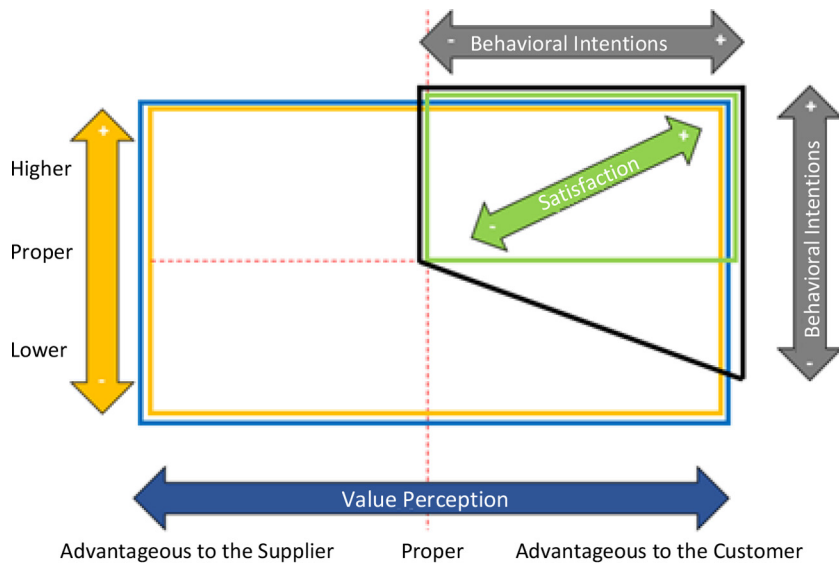


Figure 1. Buyers (customer)'s intention to perpetuate (behavioral intention) contractual relationship and value perception

Sources: Adapted from Williams *et al.* (2011)

Although relevant, exploring control mechanisms and the behavioral aspects that shape trust and collaboration are not in our scope in this work.

Buyer–supplier relationship intensity

In addition to asset specificity and uncertainty, frequency is widely recognized as a major transaction attribute (Williamson, 1991). More frequent transactions are likely to affect cost structures in both buyer and supplier sides and determine trade volumes, thus influencing the odds of contract renewal.

Further, more intense and frequent relationships may imply in additional gains from mutual learning when repeated interactions enable contractual adjustments, fixing errors and the reinforcement of positive behaviors, adequate practices and at the end, the deployment of transaction-specific competencies that are able to engender value creation (Argyres *et al.*, 2012). Interrupting such a virtuous circle might not be appropriate. Therefore, the intensity of buyer–supplier relationships assumes strategic relevance as breaching the contract and stopping the relationship can not only destroy value but also transfer the surplus generated by frequent and intense buyer–supplier relationships to competitors. Formally:

H1. The higher are the buyer–supplier interactions, the higher the likelihood of renewing contracts in B2B relationships.

The role of asset specificity

Specific assets, or those that are not likely to be redeployed without value destruction, are one of the key dimensions to understand the magnitude of transaction costs in buyer–supplier relationships, including organizational boundaries and make or buy decisions.

Transaction-cost theory posit that when keeping frequency and uncertainty constant, the higher the asset specificity degree and the lower the odds of using market mechanisms to govern buyer–supplier relationships. In extreme cases, vertical integration is the most efficient solution, i.e. the governance structure that reduces the existing transaction costs (Williamson, 1991). In some settings, managers may invoke contracts that foresee obligations and rules to share property and decision rights, which allows contracting parties to craft long-term contracts even in the presence of high asset specificity (Menard, 2013).

As defined by Williamson (1991), asset specificity presents some distinctions: site specificity, that is, the proximity between buyers and supplier can affect inventory and transportation costs and may impose replacement costs; physical asset specificity, when it involves specialized equipment to produce components at proper cost levels; human-asset specificity, which surges from continuous learning from managerial practices; and dedicated assets, which represent investments on behalf of particular suppliers and/or buyers and that specific to the relationship. All these aspects impose bilateral dependency and make for difficult (and costly) the interruption of a given transaction.

Commodity suppliers with production cost similar to the competition may depend on the relative location *vis-à-vis* buyers' location to achieve their objectives and fulfill customer needs. Therefore, the site specificity is a source of competitive advantage, and it plays a leading role in the odds of renewing ongoing contracts. Lower distribution and logistics costs compared to competition tend to offer more affordable prices and create enhanced value perception.

Therefore:

- H2. The presence of site specificity, i.e. the supplier's relative location compared to other alternatives available to buyers, is likely to increase the odds of contract renewal in B2B relationships.

Supplier's location may also contribute to the increased efficiency in logistics and distribution resources, i.e. customers located near are likely to use transportation specific assets, such as pipes, not available to other customers and experience cost advantages due to the reduced costs per transported unit. In this scenario, buyers may benefit from increased trade volumes. Hence, efficiency aspects arising from location decisions are correlated to value perception. Lower buyer–supplier distances shape costs influence the deployment of specific assets, especially those used in transport, and facilitate buyer–supplier coordination.

Therefore:

- H3: The lower the distance between buyer and s supplier, the higher the odds of contract renewal in B2B relationships.

Economies of scope

Economies of scope occur when supplying more than one product to the same customer engender positive impacts to exchanging parties compared to supplying a single product in isolation. Indeed, after sharing supply sources, production structures, resources, capabilities and distribution channels, organizations may obtain lower costs when they produce/distribute more products (Chandler, 1977). Not surprisingly, manufacturing firms have been trying to leverage interchangeability standards of products and

procedures to decrease costs, increase flexibility and obtain superior levels of competitive advantage.

Suppliers focused on obtaining economies of scope tend to present an increased perception of the value created, which, in addition to the underlying costs of switching suppliers, and inherent asset specificity levels may stimulate buyers to continue contractual relationships. In this vein, learning and economies of scope arising from specialization and appropriation of idiosyncratic rents by contracting parties not only help organizations to develop dynamic capabilities (Augier & Teece, 2009) but are also likely to explain the continuity of buyer–supplier relationships over time. Therefore:

H4. The presence of economics of scope, both to buyer and supplier, increases the odds of contract renewal in B2B relationships.

Methodology

Data

To analyze the underlying reasons to renew B2B contracts, we contacted a leading multinational company operating in the chemical industry, which supplies industrial utilities. The organization is present in Brazil for more than 40 years. Their main competitors are multinational companies with global coverage. Rivalry standards in the industry are based on operation efficiency, technical reliability and strong financial performance. The company focuses on B2B, i.e. their customers are other companies of several fields using the acquired products in their operations.

We have built a unique data set with features of buyers which renewed or not their supply contracts at the end of the term of the contract. We have information of 296 contracts signed between the observed company and their 128 buyers between 2013 and 2016, which corresponds to all contracts in the period. Our empirical strategy allows us to build an exclusive database enabling us to observe organizational phenomena that are difficult to observe by a database publicly available. The analytical consistency of our econometric procedures allows to use our research strategy in the approach known as “insider econometrics” (Teodorovicz *et al.*, 2019). This tradition is relatively new and has been gaining supporters in the fields of economics (Ann *et al.*, 2004), management (Frank & Obloj, 2014) and public administration (Cabral & Lazzarini, 2015).

Table I shows the distribution of buyers according to the manufacturing segment.

Dedicated assets with low or any interchangeability with other industries characterize the industry in which the supplier operates. One may observe constant investments in specific knowledge areas to improve technological capabilities and obtain advantages from superior products or differentiated service levels. Along these lines, products transportation is performed through highly specific assets (such as tank trucks, tank cars and cryogenic equipment). This involves specific investments in proper storage devices within buyer’s facilities, which are often incurred by the supplier side.

The existing specificity levels require expressive investments in assets that are not easily tradable. This hampers liquidity, increases complexity in the investment analysis and the perception of superior risks involved. Renewing contracts is particularly critical for the supplier perspective to safeguard the investment made in a setting in which outside options are not vast. Assuring trade volumes to obtain production efficiency is crucial to organizational performance.

Table II illustrates the proportion of the contracts renewed within the period analyzed.

Dependent variable

Our intention is to determine the characteristics that increase the odds of renewing supply contracts in B2B settings. Our dependent variable (“Renov”) refers to the event of renewing or not the observed contract, thus assuming one (1) when the renewal occurred and zero (0) otherwise, when the contract was not renovated.

To estimate the probability of renewing B2B contracts, we use logit models with maximum likelihood, which is a widely used econometric procedure to deal with discrete choices.

Independent variables

To test our first hypothesis, we observe the volume in kilograms (identified as “Vol”) as our measure of buyer–supplier relationship intensity. We expect that the higher the trade volumes the higher is the relationship intensity. Higher trade volumes may be associated with increased buyer dependency on suppliers.

For our second hypothesis, we create a variable (EmpMA), assuming the value of one (1) for the cases in which the supplier company is the better option from the logistics point of view. That is, the supplier company is the buyer’s closest supplier *vis-à-vis* other potential suppliers. To obtain this variable, we performed a comprehensive assessment of all competitors’ facilities and checked the distance (in Km) between the observed competitors’ facilities and the buyer operating units. We used Google Maps to support our calculation.

In our third hypothesis, we calculate the distance (Distan) between the supplier and the observed buyer company, measured in kilometers.

To assess our fourth hypothesis, we created a variable (AdProd) assuming one (1) when the buyer company contracted more than one product and zero (0) when the contracting

Industry	Quantity
Specialized construction	2
Electric equipment	5
Industrial machinery	1
Food products	5
Rubber products	2
Metal products	37
Paper products	6
Ceramics and glass products	5
Chemical products	7
Services	45
Primary iron and steel metallurgy	10
Others	3
Total	128

Table I.
Distribution of buyer
companies according
to the manufacturing
segment

Companies	Quantity	(%)
Contracts renewed	48	37.5
Contracts not renewed	80	62.5
Total	128	

Table II.
Contract renewal
features

refers to a single item. It is worth to emphasize that the supplier does not necessarily demand for more than one product all the time.

To improve the consistency of our analyses and reduce the role of unobservable factors, we also use year controls, to assess the incidence of exogenous effects such as macroeconomic factors. Such unobservable may affect the propensity of renewing B2B contracts.

Table III shows our descriptive statistics for each variable.

Table IV shows a summary associating variables and hypotheses to be tested, including the expected sign for the probability to renew a contract. Table V presents the correlation matrix. We may note the lack of multicollinearity issues in our variables.

Results and discussion

Table VI shows the results of our logit regressions. It is worth to emphasize that, except for the distance rate, all other variables were statically significant at 1 per cent, either including year fixed-effects or not. Columns (7) and (8) exhibit models with all variables.

Our analysis suggests that the distance between the observed supplier and its customers is not associated to contract renewal (see columns (3) and (4) and more complete regressions columns (7) and (8)). The variable Log_Vol is relevant and has a positive impact on contract renewal, that is, the higher the trade volumes, the higher is the probability that its contract is renewed at the end of the contractual period, both in simple regressions and multiple regressions. The variable dProd is also relevant and has a positive impact, confirming that the existence of more than one product supplied to the same buyer increases the probability of renewing contracts. The variable EmpMA shows that the supplier company closest to the observed buyer plays a major role on probability of renewing contracts.

Wald tests evaluate the robustness and the significance of all coefficients in the logistic regression. For the Models (3) and (4), the parameters were not significant and suggest that variable Distan is not relevant to estimate the probability to renew a contract in isolation. Such finding is reinforced by the lower values of pseudo R^2 associated to the Models (3) and (4), as well as the models in which Wald statistics were not statistically significant. However, the higher pseudo R^2 are associated to the Models (9) and (10), which include all interested explanatory rates. These results along with the Wald statistics ($p < 0.01$) suggest that our variables present explanatory power and are valid to predict the observed effect.

Although they are useful to understand the sign of the coefficients, the results of Table VI do not allow to assess the magnitude of the effects. Table VII presents the results of the logit regressions with odds ratio coefficients, which indicate the likelihood to renew a contract *vis-à-vis* the odds of not renewing a contract.

Considering the results present in Column (8), each additional product supplied increases the odds to renew a contract in three times. On the contrary, in case the supplier company is the best alternative, the odds to renew the contract are twice bigger than when the observed supplier is not the best alternative from the logistic point of view.

We also plot additional graphs containing marginal effects to assess the effect of trade volume (log_Vol) on the propensity to renew a given contract. The probability to renew a contract increases according to the relationship intensity, indicated by the volume transacted in kilograms per year. Figure 2 demonstrates that the probability to renew a contract is accentuated when relationship intensity increases (see the "S" format in the marginal effect curve). For example, when the renewal odds are 13 per cent, trade volumes needs to increase much more than 300 per cent to increase the odds of renewal to 26 per cent. When the renewal probability is 40 per cent, trade volumes must increase 800 per cent to

Continuous variables	Description	Average	Deviation-standard	Minimum	Maximum	p5	p25	p50	p75	p90	p95
Volume	Volume	567,759.00	1,543,000.00	499.10	11,700,000.00	2,247.00	15,611.00	54,049.00	304,216.00	1,514,000.00	2,786,000,000.00
log Vol	ln Volume	11.16	2.12	6.21	16.28	7.72	9.66	10.90	12.63	14.23	14.84
Distan	distance (in kilometers)	116.00	96.32	5.00	412.50	5.00	48.50	88.37	165.50	243.90	356.10
Discrete Variables		Successful frequency	Failure frequency	Minimum	Maximum	p5	p25	p50	p75	P90	p95
Renov	Indicates if the contract was renewed	0.37	0.63	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
EmpMA	Indicates the supplier with the best alternative	0.16	0.84	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00
Ad Prod	Indicates if it contracted more than one product	0.16	0.85	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00

Table III.
Descriptive statistics

make the probability of renewal to be 80 per cent. Similar results are observed in Figure 3, in which we use Volume instead of Log_Vol.

For EmpMA and AdProd variables, marginal effects are presented in Table VIII. The average probability to renew a contract increases 20 p.p. when the supplier is the best alternative in terms of distance. An additional product increases the probability to renew a contract in 25 p.p. on average.

Table IX summarizes the results of the tests we have performed. It shows that the model logit classified correctly 67.23 per cent of the cases we have observed. There were 42 correct classifications to renew a contract, that is, 38.53 per cent of the contracts renewed were classified correctly and 83.95 per cent of the contracts not renovated were classified correctly.

These analyses allow us to elaborate some considerations regarding our hypotheses previously drawn. Our first hypothesis posits that the intensity of buyer–supplier relationships, the higher the odds of renewing a B2B contract. We measured the relationship intensity through a volume effectively transacted in the years observed until the year of the renewal. We observed in Table VI (Model 8) that this hypothesis was not rejected (Log_Vol is significant at $p < 0.01$). Higher degrees of asset specificity in this industry, in terms of production, transportation and storage seem to justify the high dependency of the customer to higher trade volumes transacted in line with the tenets of resource dependency theory of dependency (Hillman *et al.*, 2009). In cases of intense buyer–supplier relationship not renewing a contract would imply in superior transaction costs due to the costs associated to supplier replacement. On the supplier side, the alternative of getting new contracts with buyers with lower trade volumes would imply in superior costs because the need of

Table IV.
Hypotheses,
variables and
expected signs

Variable	Description	Type	Hypothesis	Expected sign	
log Vol	Log volume	Annual volume acquired (natural logarithm)	Continuous	H1	+
EmpMA	Better alternative	Identifies if the observed supplier is the closest supplier to the buyer company, compared to competitors	Discrete	H2	+
Distan	Distance	Distance, in kilometers between buyer and supplier	Continuous	H3	–
AdProd	Additional products	Identifies if the observed contract involves more than one product	Discrete	H4	+

Source: Created by authors

Table V.
Spearman correlation
matrix

	Renov	log Vol	Volume	Distan	EmpMA	AdProd
Renov	1.000					
log Vol	0.286	1.000				
Volume	0.286	1.000	1.000			
Distan	–0.010	–0.052	–0.052	1.000		
EmpMA	0.167	0.228	0.228	–0.619	1.000	
AdProd	0.195	0.026	–0.026	–0.028	0.043	1.000

	Dependent variable: renewed contract							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log_Vol	0.2894*** (0.0553)	0.2886*** (0.0563)					0.2686*** (0.0571)	0.2666*** (0.0586)
Distan							0.002 (0.0014)	0.002 (0.0014)
EmpMA					0.9067*** (0.3233)	0.9143*** (0.3328)	0.8119** (0.4064)	0.8187** (0.4107)
AdProd							1.1164*** (0.3449)	1.1113*** (0.3501)
Constant	-3.8135*** (0.6310)	-3.6248*** (0.6647)	-0.5382*** (0.1884)	-0.3376 (0.2466)	-0.6931*** (0.1347)	-0.4935** (0.2104)	-4.1279*** (0.6773)	-3.9221*** (0.7182)
N_Obs	296	296	296	296	296	296	296	296
Pseudo R2	0.0613	0.0673	0.0000	0.0080	0.0204	0.0284	0.1000	0.1060
Year Dummies	No	Yes	No	Yes	No	Yes	No	Yes
Wald Estat	27.360	28.500	0.000	3.037	7.867	10.490	35.170	35.980
p-value Wald	0.0000	0.0000	0.9916	0.5517	0.0050	0.0330	0.0000	0.0000

Notes: Robust standard errors in parentheses; *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table VI.
Results (logit
regression)

Table VII.
Results (logit
regression)

	Dependent variable: Contract renewed							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log_Vol	1.386*** (0.0739)	1.335*** (0.0751)					1.308*** (0.0746)	1.305*** (0.0764)
Distan			1.000 (0.00125)	1.000 (0.00126)			1.002 (0.00142)	1.002 (0.00143)
EmpMA					2.476*** (0.800)	2.495*** (0.830)	2.252** (0.915)	2.267** (0.931)
AdProd							3.054*** (1.053)	3.038*** (1.064)
Constant	0.0221*** (0.0139)	0.0267*** (0.0177)	0.584*** (0.110)	0.713 (0.176)	0.500*** (0.0673)	0.610** (0.128)	0.0161 (0.0109)	0.0198*** (0.0142)
No. Obs	296	296	296	296	296	296	296	296

Notes: Robust standard errors in parenthesis; *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

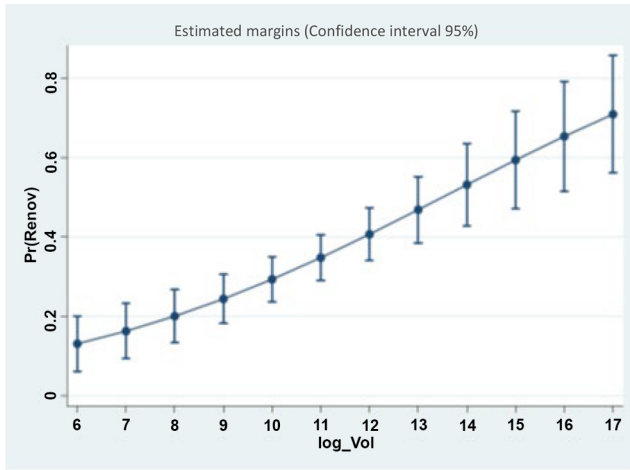


Figure 2.
Probability to renew
a contract – Marginal
effects (Log_Vol)

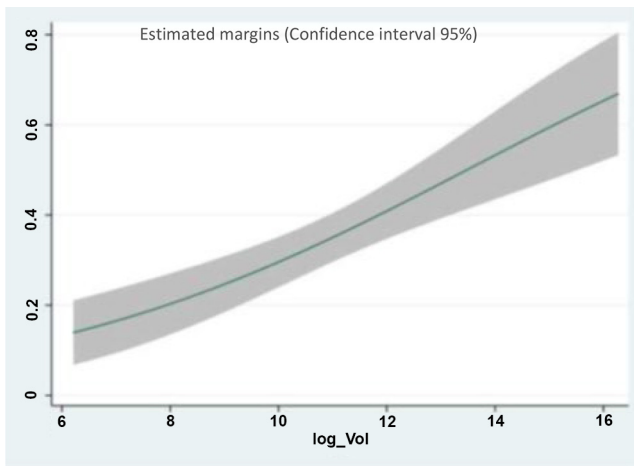


Figure 3.
Probability to renew
a contract – Marginal
effects (Volume)

performing-specific investments crafting contracts to be created and potential learning costs arising from new relationships. These extra costs can imply in lower odds to renew such contracts in the future. On the buyer side, the transaction costs involved in replacing suppliers are also not negligible as they involve the creation of new contracts, in addition to lower odds of reaping benefits from relational ties accumulated through repeated interactions over time (Lumineau & Henderson, 2012; Oliveira & Lumineau, 2017).

Our second hypothesis (*H2*) was not rejected either. Model (8) in Table VI suggests that the buyer is in regions where the supplier is the most suitable option from the logistic perspective, then the odds of renewing contracts are significantly higher ($p < 0.05$). According to our analyses, it is twice more likely that a contract is renewed when the supplier company is the best option under the logistics point of view. By shedding light on

the asset specificity dimension (Williamson, 1991), we suggest that dedicated assets are important vectors in the dynamics of contractual renewal. Both suppliers and buyers are benefited from this condition and they try to exploit it by extending the relationships, especially due to the preservation of advantages from contracts relational ties in supply chains (Lumineau & Henderson, 2012; Poppo et al., 2016).

On the contrary, our third hypothesis (H3), related to buyer–supplier distance, was not supported considering that the distance is not significant ($p > 0.1$) to involve contract renewing. This result suggests a nuanced view on role of asset specificity in buyer–supplier relationships compared to prior studies in strategy (Dyer, 1997; Poppo et al., 2016). Indeed, the location issue, as tested by the hypothesis above, is not the sole reason for contract renewal. It is necessary to observe the relative location between buyers and suppliers in an interdependent fashion. In our case, even if the distances are reduced, supplier tends to be in disadvantage if their competitors are even closer to buyers.

Finally, H4 was not rejected in our study, as evidenced by the AdProd variable, ($p < 0.01$). Buyers with contracts involving more than one product with the supplier herein analyzed tend to experience a significant probability to renew contracts. This occurs due to economies of scope. In addition, the transaction costs tend to be lower in this scenario. On the supplier side, economies of scope allow value appropriation through complementary products and services. On the buyer side a similar situation occurs, thus enabling a value-creating arrangement in which the parties have incentives to preserve. It is also worth to emphasize that resource dependency may also explain the propensity of enlarging the horizontal scope of the contractual relationship through the acquisition of additional products (Hillman et al., 2009). For example, when a buyer demands certain products in small volumes and competitors are not necessarily interested to supply, whether due to costs inefficiencies or the mere unavailability of the product in that region, resource dependency may leverage the odds of contract renewal of the main product.

Table VIII.
Marginal effects for
EmpMA and AdProd
rates

	Prob(Renov)	Standard errors	Confidence interval	
<i>EmpMA</i>				
0	0.338	0.0312	0.277	0.399
1	0.515	0.0824	0.354	0.676
<i>AdProd</i>				
0	0.328	0.0307	0.268	0.388
1	0.571	0.0701	0.434	0.708

Notes: *Standard errors.* Delta method for interval estimate

Table IX.
Values correctly
classified by our
model

Classified	Observed		Total
	Renov = 1	Renov = 0	
Renov = 1	42	30	72
Renov = 0	67	157	224
Total	109	187	296

Conclusions

This paper aims to analyze three potentially relevant factors in the decision of renewing B2B contracts, the relationship intensity between buyer and supplier, site specificity resulting from the relative location of buyers and suppliers and the role of economies of scope. By focusing on buyer–supplier relationships in B2B settings, we contributed to theories related to the strategic negotiation between buyers and suppliers (Lumineau & Henderson, 2012; Oliveira & Lumineau, 2017) by emphasizing the importance of asset specificity in a nuanced and multifaceted fashion (Poppo *et al.*, 2016; Williamson, 1991), aspects related to resource dependency (Casciaro & Piskorski, 2005; Hillman *et al.*, 2009) and idiosyncratic characteristics related to the dynamics of contract renewal (Cooil *et al.*, 2007). Our paper also dialogues with theories focused on trust aspects in buyer–supplier relationships in a supply chain management context (Zhang & Huo, 2013).

Implications for practice are evident. Managers involved in buyer–supplier negotiations may use the bargaining drivers we have identified to enable value creation and appropriation especially in settings involving high degree of asset specificity and high traded volumes. Under the supplier perspective, management practices analytically structured through the findings of our paper may contribute for enhanced strategies oriented to contract renewal. Managers may observe the boundary conditions for contract renewal that we have identified in this project and craft the appropriated actions. Recognizing the importance of locational aspects involved in buyer–supplier relationships and their interdependent facets may also help buyers and sellers in the decision-making process. Site-specific investments are crucial to assure buyer’ loyalty and obtain long-term relationships. Suppliers can also compensate a less favorable location by offering additional products. As already discussed, economies of scope also play a leading role in the dynamics of contract renewal.

Naturally, our paper has a strong caveat as it is limited to a single organization and its suppliers and this fact may thwart the generalizability of our findings. Expanding our study by including additional firms from the same industry and perhaps from other industries is a possible venue of future research for those interested in the topic. Future studies can refute or corroborate our hypothesis and build new theoretical propositions on contract renewal. In this vein, aspects related to issues connected to trust may be tackled by future studies interested to analyze this phenomena under the lenses of interorganizational relationships literature (Lumineau, 2017; Lumineau & Henderson, 2012). In addition, future studies may analyze the determinants of contractual performance due to the contract renewal, as well as to explore the role of asset specificity by using measures that reflect real investments performed by contracting parties. Although such factors are difficult to obtain due to confidentiality aspects, even in studies using the insider econometrics approach, there is an immense potential to explore contract renewal drivers through solid identification strategies that allow causal inferences between the variables of interest.

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