Corporate Governance

Formal and relational contracts between organizations: proposal of a model for analysis of the transactional and governance structure characteristics of comparative cases

Contratos formais e relacionais entre organizações: proposição de um modelo para análise das características transacionais e das estruturas de governança a partir de casos comparativos

Contratos formales y relacionales entre organizaciones: proposición de un modelo para el análisis de las características transaccionales y las estructuras de gobernanza a partir de casos comparativos

Luciana Cardoso Siqueira Ambrozini *, Dante Pinheiro Martinelli

Universidade de São Paulo, Ribeirão Preto, SP, Brazil

Abstract

The literature indicates that the use of formal and relational governance structures have a fundamental role in the conduct and maintenance of inter-organizational relationships. Nevertheless, there are possibilities for discussions about the composition and function of these structures in the presence of different transactional characteristics. Thus, a model based on the literatures of formal contracts, inter-organizational relationships, Relational Contract Theory, and Transaction Cost Economics is proposed. Since this is a qualitative exploratory research, six structured interviews were carried out and interpreted by means of Content Analysis for case comparison and discussion of theoretical propositions. It was observed that some transactional characteristics, when present with greater intensity in the context of a transaction, tend to corroborate the theoretical propositions of formal contractual function, demonstrating that the intensity of these characteristics is a relevant factor for analyzing the adequacy of governance structures. Likewise, the use of different relational norms presents variations within each characteristic analyzed. Other aspects explored in the Content Analysis are suggested in the composition of the analysis model. The propositions explored regarding the composition of the transaction context and the complementarity of governance structure of inter-organizational relationships are also discussed.

Resumo

A literatura aponta que a utilização de estruturas de governança formais e relacionais tem papel fundamental na condução e manutenção das relações interorganizacionais. Entretanto, verifica-se possibilidades para discussões sobre composição e função dessas estruturas na presença de diferentes características transacionais. Propõe-se, assim, um modelo fundamentado nas literaturas de contratos formais, relações interorganizacionais, nas Teorias dos Contratos Relacionais e Economia dos Custos da Transação. Sendo uma pesquisa qualitativa-exploratória, foram realizadas e interpretadas por meio da Análise de Conteúdo seis entrevistas estruturadas para comparação dos casos e discussão de proposições teóricas.

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 * Corresponding author at: Avenida dos Bandeirantes, 3900, CEP 14040-900 Ribeirão Preto, SP, Brazil.
   E-mail: lucianasiqueira@usp.br (L.C. Ambrozini).

Observou-se que algumas características transacionais quando presentes com maior intensidade no contexto da transação tendem a corroborar as proposições teóricas de conteúdo e função contratual formal, demonstrando que a intensidade da presença de características transacionais apresenta-se como fator relevante para análise de adequação de estruturas de governança. No mesmo sentido, a utilização das diferentes normas relacionais apresenta variações dentro de cada característica analisada. Outros aspectos explorados na Análise de Conteúdo são sugeridos para a compor do modelo de análise. São discutidas proposições exploradas acerca da composição do contexto da transação e a complementaridade de estruturas de governança de relações interorganizacionais.

Resumen

La literatura indica que la utilización de estructuras de gobernanza formales y relacionales tiene un papel fundamental en la conducción y mantenimiento de las relaciones entre organizaciones. En este estudio se analizan la composición y la función de esas estructuras en presencia de distintas características transaccionales. Se propone, así, un modelo con base en la Teoría de los Contratos Relacionales y la Teoría de la Economía de los Costos de Transacción. Se lleva a cabo un estudio cualitativo exploratorio por medio del análisis de contenido. Se han realizado seis entrevistas estructuradas para la comparación de los casos y discusión de proposiciones teóricas. Se ha observado que algunas características transaccionales, cuando se presentan con mayor intensidad en el contexto de la transacción, tienden a corroborar las proposiciones teóricas de contenido y función contractual formal, lo que demuestra que la intensidad de la presencia de características transaccionales se configura como factor relevante para el análisis de adecuación de estructuras de gobernanza. Asimismo, la utilización de las distintas normas relacionales presenta variaciones dentro de cada característica analizada. Para componer el modelo de análisis, se sugiere considerar otros aspectos examinados en el análisis de contenido.

Introduction

The cooperative relationship between companies sets up different productive arrangements, and can stem from different motivations, such as: acquisition of additional competences; increase of productivity and quality; cost and risk reduction; organizational learning; market access; or political need (Arino & de la Torre, 1998; Baudry & Chassagnon, 2012; Wallenburg & Schaffler, 2014).

Nevertheless, such cooperation is neither created nor maintained automatically, due to either the possible exploitation by the parties, or the existence of faults in the relationship coordination. Thus, the use of governance structures and mechanisms—such as formal and relational contracts which minimize the possible negative effects of cooperation between the companies and contribute to the coordination, control, and adaptation between the parties—becomes relevant (Dekker, 2004; Lumineau & Malhotra, 2011).

Formal contracts represent promises or obligations to carry out certain future actions which can present variations in their complexity, in turn affecting the cost of drawing up the contract. Thus, the contracting parties tend to take on high costs for the establishment of complex contracts only when the consequences of breach of contract are considered. Nevertheless, the contract's capacity to safeguard the parties or even perform coordination and adaptation roles in the relationship is limited, mainly because future contingencies cannot be forecast (Macneil, 1978; Mayer & Argyres, 2004; Poppo & Zenger, 2002; Williamson, 1985).

Due to the complexity and incompleteness of formal contracts, norms or relational contracts are seen in the organizational literature as substitutes or additions to formal contracts or to vertical integration; relational contracts are informal contracts sustained by the value of future relationships within the organizations or between them (Baker, Gibbons, & Murphy, 2002; Dyer & Singh, 1998; Macneil, 1978; Uzzi, 1997).

Concerning the governance mechanisms and structures, Lumineau and Malhotra (2011) highlight that multiple means of coordination and control are inevitably used in the relationships, and the determination of the level in which the contractual structures are used is relevant. From the considerations presented, the present paper argues that since formal contracts are established at an *ex ante* moment and are incomplete, relational contracts become relevant for the minimization of risks and in driving the relationship between companies.

According to the theory of Transaction Cost Economics (TCE), contracts are governance structures used to minimize transaction costs, in which the costs arise from drafting the agreement between the parties; losses that arise from opportunistic behavior; and the lack of adaptation of the contracting parties. According to this theory, the transactional characteristics present in a relationship imply greater or reduced risks, which in turn would alter the costs, functions, and compositions of contracts (Schepker, Oh, Martynov, & Poppo, 2014; Williamson, 1985).

In this respect, we suggest that formal and relational contracts have the purpose of contributing to risk reduction, coordination, and adaptation of relationships, and the use of these two governance structures can be influenced by the combination of miscellaneous transactional characteristics. For this purpose, the present paper aims to answer the following question: *how do the transaction characteristics of relationships affect the function and complexity of formal contracts and the tendency to use relational contracts?*
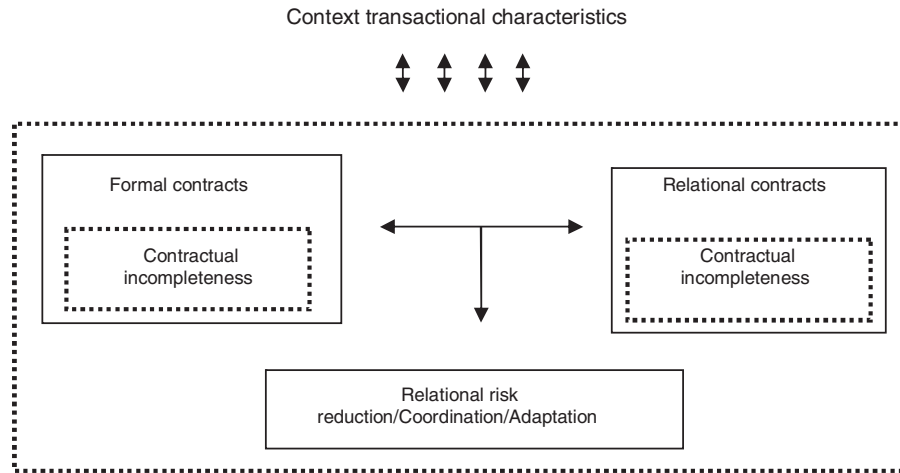
Context transactional characteristics

Fig. 1. Interaction between formal and relational contracts for governance in the relationships between firms.
Source: elaborated by the authors.

We intend to propose a model for analyzing how transactional characteristics influence the function and complexity of formal contracts and the tendency to use relational contracts (i.e. relational governance). The proposal put forth in this study is based on the literature on formal contracts, the Theory of Relational Contracts, and the Theory of Transaction Cost Economics (TCE) applied to inter-organizational relationships, with the latter used as a basis for the analysis of transactional characteristics. Fig. 1 shows the construct interactions used in this research.

Justification

Despite the various benefits arising from companies' networks, the continued sustainability of an arrangement requires governance structure combinations which offer verification of the participants' autonomy (Lima, Garcia, Carvalho, & Martinelli, 2009; Menárd, 2011, Chap. 26). The understanding of the contingency conditions and other critical factors in the formation and maintenance of the arrangements is relevant due to the fact that well-coordinated relationships tend to ease a complex interdependence in the transactions (Balestrin & Vargas, 2002; Balestrin & Vargas, 2004).

Previous studies point out that contextual factors (i.e. transactional characteristics, institutional environment, relationship type and duration, type of variable measurement) may influence not only the composition and the purpose of formal contracts (i.e. protection, coordination, adaptation), but also the composition of relational contracts (Cannon, Achrol, & Gunslach, 2000; Cao & Lumineau, 2015; Mayer & Argyres, 2004; Schepker et al., 2014).

Thus, there are indications that the use of formal and relational contractual structures in a complementary way may differ in nature and function, due to the combination and presence of transactional characteristics in the relationships (Baker et al., 2002; Cimino, 2015; Mallewigt, Decker, & Eckhard, 2012; Poppo & Zenger, 2002; Uzzi, 1997).

Nevertheless, it is still possible to identify room for discussion on how various transactional characteristics can influence the composition and function of formal and relational contracts. Cao and Lumineau (2015) point out that although the existing literature shows that formal contracts and relational governance have a fundamental role in inter-organizational relationships, the nature of the action combined with these governance structures remains ambiguous.

Such observation is supported by Cimino (2015), who highlights the relevance of studies in which an economic and organizational perspective is considered along with the social and relational aspects of the transaction, as an approach for understanding the economics of relational expectations of contractors.

To add to the discussion of the additional interactions between formal and relational contracts, the theoretical foundations for the proposition of an exploratory model are presented in the following sections.

Transaction characteristics, functions, and complexity of formal contracts

TCE's fundamental issues are related to the economics of transaction costs in the presence of different transactional attributes, which demand governance structures that differ in costs and adaptive capacities. From this perspective, the problem of organizational economics is set as a contracting issue, and the purposes of organizational efficiency are met by the match between the governance structure and the transaction attributes, in a discriminatory way (Williamson, 1985).

Thus, the contractual range is mainly explained as a result of differences in the transaction attributes. In the case of assumptions about human nature (i.e. limited rationality; opportunism) which have *ex ante* or *ex post* effects on establishing the relationship, the characteristics of the transaction tend to influence the effectiveness of the contracts in minimizing the risks associated with the relationships (Brosseau & Glachant, 2002; Schepker et al., 2014; Simon, 1962; Williamson, 1979, 1985).

The main dimensions which differentiate transactions are asset specificity—the most important dimension and that which

distinguishes Transaction Cost Economics from other economic treatments—as well as those of uncertainty and frequency (Williamson, 1985).

Asset specificity happens when an investment made in support of a transaction has a lower value in alternative uses. This transaction characteristic, together with the behavioral assumptions of opportunism and limited rationality implied in the complexity of formal contracts, and the extent to which the clauses aiming to safeguard the parties are used, means transactions enabled by considerable specific investments benefit more from a formal governance structure (Mallewigt et al., 2012; Williamson, 1985).

Another transactional characteristic presented by the TCE is uncertainty, which is related to unanticipated and unpredictable changes in the circumstances in which the relationship is inserted, challenging the creation of aligned incentives and responsibilities. Since *ex ante* transaction coordination becomes impractical in cases of uncertainty, contracts take on the role of promoting adaptation to the contingencies when specifying principles and norms so that the parties can deal with unanticipated events (Luo, 2002; Mayer & Bercovitz, 2008; Williamson, 1985; Zhou, Poppo, & Yang, 2008).

Transaction frequency is relevant, since the costs of a specialized governance structure will be more easily recovered with greater and recurrent transactions. Thus, in transactions in which the parties interact with greater frequency, there is a tendency to use formal clauses as the bases for future transactions. The contract also has a coordination function, avoiding the use of the courts in favor of arbitration, to better preserve the continuity of the relationship (Batenburg, Raub, & Snijders, 2003; Williamson, 1985).

Besides the transactional characteristics considered in the TCE, the literature on inter-organizational relationships points to others that possibly influence the composition of governance structure, namely: dependence, difficulty in measuring performance, relationship period, and the expectation of continuity of the relationship (Artz & Bush, 2000; Crocker & Reynolds, 1993; Poppo & Zenger, 2002; Schepker et al., 2014; Williamson, 1979, 1993; Zhou et al., 2008). Next, these characteristics and corresponding governance structures are reviewed.

Following Scheer, Miao, and Palmatier (2015), the term "dependence" refers to the need of one of the parties to preserve the relationship to meet its goals. Unlike asset specificity, in the case of dependence one of the parties needs the performance of the relationship for the attainment of resources or in order to perform its activities. The adjustments required in the case of this characteristic and the costs of changing to another relationship demand the use of formal contractual clauses which lead to the coordination of tasks carried out in the relationship (Hállen, Johanson, & Seyed-Mohamed, 1991; Lusch & Brown, 1996; Mallewigt et al., 2012; Williamson, 1985).

Considering that the risks regarding performance arise from the possibility that the parties' objectives are not reached, the difficulty in measuring performance also tends to affect the way the governance structure is set up, and the measurement of some kinds of performance can become costly up to being impracticable. Nevertheless, when the risks associated with breach of contract are relevant, the contractual clauses tend to be used to safeguard the parties (Crosno & Brown, 2015; Mouzas & Blois, 2013; Poppo & Zenger, 2002).

Knowing that the possibility of future opportunistic behavior cannot be directly observed, previous experience can serve as a useful guide, making the relationship period a relevant variable in the analysis of the context of the relationship. The inter-organizational routines provide a basis for the parties to reach their relationship goals, in which the contracts are tools that contain information about coordination and cooperation. This communication, originating from a specialized language, is developed as collaborative experiences are accumulated (Crocker & Reynolds, 1993; Williamson, 1979; Zollo, Reuer, & Singh, 2002).

The continuity of the relationship reflects the long-term feasibility perspective. Agents who have a background which demonstrates a tendency to cooperate, using conflict resolution without falling back on third-party intervention, tend to have future expectations of the continuity of the relationship, establishing contracts which reflect the expectation of maintaining the alliance in the future. Unlike relationships which present a predetermined term, formal contracts play the role of providing coordination guidelines to align expectations in relationships without a termination date (Crocker & Reynolds, 1993; Jap & Anderson, 2003; Mallewigt et al., 2012; Reuer & Arino, 2007).

As the transactions become more complex and uncertain due to the presence of the transaction characteristics discussed above, the economic changes tend to require more sophisticated contractual governance, such as a bilateral governance structure that, compared to vertical integration, enables a reduced cost of control. However, problems arise when contractual and adaptability expenses are considered, making leeway for adjustments and flexibility necessary (Schepker et al., 2014; Williamson, 1979).

Considering that cooperation in the relationships between companies does not take place automatically, and that formal contracts are very heterogeneous documents which include terms which are not legally rendered, it is suggested that the purpose of contracts is broader than just providing guidelines to the courts. From this perspective, contracts contain information that go beyond the function of safeguarding the parties, presenting clauses which can be used for the purposes of coordination and adaptation of the relationship (Malhotra & Lumineau, 2011; Mallewigt et al., 2012; Ryall & Sampson, 2003). The possibilities of the functions of formal contracts (i.e. safeguard; coordinate; adapt) are described next.

From the TCE perspective, taking into account opportunism, one of the main motivations to write a contract is to safeguard investments and ownership rights against the relational risk of misappropriation; therefore the attribute of asset specificity plays a relevant role in the use of safeguarding clauses (Williamson, 1985).

On the other hand, in relationships where there are tasks that involve both contract parties and which must be followed beyond the companies' boundaries, there are significant coordination difficulties, since the labor division, the interface, and the reciprocity of activities and products demanded for the tasks need

Table 1

Contractual functions and typical clauses in formal contracts.

Contractual function	Safeguard	Coordination	Adaptation
Typical clauses	Property rights	Functions and responsibilities	Price adjustment
	Confidentiality	Communication (*reporting*)	Engineering changes
	Anticipated unilateral termination	Project scale	Compelling reason clauses
	Dispute resolution	Designation of specific staff	

Source: Adapted from Mallewigt et al. (2012).

to be harmonized. Therefore, the contract coordination function aims to align the actions, with task dependence as the background, which imposes coordination challenges (Dekker, 2004; Gulati & Singh, 1998; Mallewigt et al., 2012).

While safeguard and coordination clauses are associated to the *ex ante* moment of the transaction, inherent risks due to the presence of uncertainty and the impossibility of forecasting all future contingencies create the need for contractual clauses which help the parties deal with unexpected events. The presence of procedures and guidelines direct the actions of the parties when dealing with unpredicted circumstances or conflicts, reflecting situations characterized by the instability of the transaction (Crocker & Reynolds, 1993; Luo, 2002; Mallewigt et al., 2012). Table 1 summarizes the typical clauses for the functions commonly aimed at formal contracts.

In this respect, Mallewigt et al. (2012) argue that the performance of inter-organizational relationships is not only affected by the number of contractual clauses (i.e. contractual complexity), but also by the content which specifies the functions of the contracts. From the model proposed by the authors, the clauses considered typical of the safeguard function are those related to ownership rights, confidentiality, anticipated unilateral termination, and dispute resolution. On the other hand, the coordination function would involve the presence of clauses addressing functions and responsibilities, communication (i.e. reporting), project scale, and the appointment of specific staff. Finally, the adaptation would lead to the presence of clauses of price adjustment, engineering changes, and compelling reason clauses.

In this sense, the one-dimensional conceptualization tends to hide the fact that different contractual clauses have different purposes. When considering more than just contractual complexity, it is seen that the transactional characteristics influence the composition, use, and complexity of formal contracts in order to match them to the transactional context at issue (Mallewigt et al., 2012).

In order to corroborate, Arino and Reuer (2004) argue that empirical evidence suggests a significant contractual heterogeneity in hybrid arrangements, and the transaction characteristics are determinant of the contractual complexity and governance form. The authors also highlight that, in the context in which the parties have already had previous experience with each other, the relationship can be maintained with less use of complex formal contracts, since uncertainty about the other party's behavior is reduced. Table 2 summarizes the relationships between the contractual function and the transaction characteristics observed in the literature.

Based on the premise that relational governance and formal contractual functions, and their complexity, can originate in the same context through the complementarity approach between governance forms (Poppo & Zenger, 2002); and that contracts specify the terms of an agreement between two parties being presented in varied ways, from informal promises to formalized agreements (Schepker et al., 2014), the complementary perspective between the formal and relational contracts is discussed in the next entry.

Relational Contracts as additional structure to formal contracts

Lumineau and Malhotra (2011) point out that the parties can limit the use of formal contractual governance structure for three reasons: (1) the reduction of costs associated with contract development, monitoring, and execution – according to the TCE; (2) the recognition of the relevance of new information concerning the parties' interests, needs, and abilities; and (3) the encouragement of mutual development of reliability and cooperative norms.

Therefore, it is argued that the operationalization of transaction costs is optimized when other forms of agreement between the parties are used (i.e. relational perspective) to make the governance structure of the relationship efficient (Mayer & Teece, 2008; Williamson, 1985). Since contracts are limited in providing efficient governance mechanisms in relationships with high

Table 2

Transactional characteristics and their respective formal contractual functions according to the literature.

Transactional characteristics	Tendency of the formal contractual function	Authors
Dependence	Coordination	Mallewigt et al. (2012)
Uncertainty (environmental)	Adaptation	Mallewigt et al. (2012), Rindfleisch and Heide (1997)
Difficulty in measuring performance	Safeguard	Poppo and Zenger (2002)
Asset specificity	Safeguard	Mallewigt et al. (2012), Rindfleisch and Heide (1997)
Transaction frequency	Coordination	Batenburg et al. (2003)
Relationship period	Coordination	Zollo et al. (2002)
Expectation of relationship continuity	Coordination	Reuer and Arino (2007)

Source: Elaborated by the authors.

levels of expertise, there is thus room for contractual solutions which allow adjustments. For this purpose, formal and informal governance mechanisms may be used to complement or even supplement the composition of governance structure (Cannon et al., 2000; Williamson, 1979, 1993).

Therefore, the relational contracts help to overcome the difficulties of formal contracting, since the last one has to be specified in *ex ante* terms, which can be checked *ex post* by a third party (Baker et al., 2002). Relational contracts can also be based on the results observed by the parties, allowing them to use their specific knowledge of the situation and adjust themselves to new information which is available. Thus, relational governance structures provide a flexible device and protection against opportunism, which are necessary for contexts which demand an efficient adaptation (Baker et al., 2002; Cannon et al., 2000).

According to the theory of Relational Contracts, the interaction between the contracting parties is ruled by a set of clauses which play a relevant role in forming the responsibilities of the parties and the real functioning of contracts. These clauses are based on a set of inner values, the social context, and the economic factors of the relationship, and are called "usual clauses", considered common to all kinds of contracts (Diathesopoulos, 2010; Macneil, 1983).

Once the inner values are related to the relationship, the intensity of the usual clauses contributes to the position of the relationship on a spectrum which varies from more discrete to more relational. The following norms are considered: (1) Integrity Role; (2) Reciprocity; (3) Implementation of planning; (4) Effectuation of consent/agreement; (5) Flexibility; (6) Contractual solidarity; (7) Reliance and expectation, which are linking norms; (8) Creation and restraint of power; (9) Propriety of means; (10) Harmonization of the social matrix (Blois, 2002; Blois & Ivens, 2007; Macneil, 1983).

According to Cannon et al. (2000), the relational norms reflect the expectations about the attitudes and behaviors of the parties while they work cooperatively to reach mutual or individual goals, and define the relational properties which affect the ability to adapt to the conditions imposed by the presence of transactional characteristics.

Macneil (2000) highlights that usual clauses provide a checklist to isolate the elements of the relationships which involve and affect the transaction significantly, thereby establishing a conceptual structure for the understanding and analysis of the governance structures of the transactions. Considering the complementarity between formal and relational contracts, and which different transactional characteristics demand distinct governance structures, the grounds for the model proposition are presented in following table.

Theoretical foundations and propositions for the model

According to the literature, a variety of mechanisms, from formal contracts and the courts, to reputation preservation and the maintenance of the relationship, enforce the commitments made by the parties, and more broadly incentivize them to cooperate. It is argued that some transactional characteristics require safeguards which include greater surveillance and monitoring,

as well as greater complexity of formal contracts, while others require greater flexibility and coordination, therefore altering the contractual composition (Schepker et al., 2014; Weber, Mayer, & Marcher, 2011).

Knowing that the characteristics presented generate different risks to the organizations of not reaching the intended results, different governance structures that may vary from discrete to relational, using formal contracts or not, are demanded for the conduct of the relationships, as explained in Table 3, and each characteristic of the transactions is detailed next (Dekker, Sakaguchi, & Kawai, 2013; Hatten, James, Fink, & Keeler, 2012).

Dependence

Formal contracts have a foremost position as governance structures in cases of dependence, containing guidelines which coordinate the actions of the parties in the relationship, and which also reduce the risks faced by the participants. Secondarily, such characteristics may alter the level of relational commitment, changing the reliability perception between the dependent parties (Geyskens, Steenkamp, Scheer, & Kumar, 1996; Schepker et al., 2014).

Uncertainty

The issues related to governance are also noticeable in changes characterized by uncertainty, which intensifies contractual incompleteness, demanding mechanisms that bring about adaptations which are specific to the relationship. Since uncertainty increases the costs of formal contracting by increasing the difficulty of forecasting future contingencies and setting proper safeguards, less formal complex contracts are made, which gives room to the relational governance forms (Cannon et al., 2000; Crocker & Reynolds, 1993).

Difficulty in measuring performance

The parties may tend to make less effort in the relationship due to information asymmetry concerning the result to be delivered, demanding more resources to be allocated to the creation of complex (i.e. detailed) contracts for third party verification. Thus, the relational governance would tend to be less used, since satisfaction with the performance would be minimized because the parties avoid the effort (Poppo & Zenger, 2002; Poppo, Zhou, & Zenger, 2008).

Asset specificity

The idiosyncrasy related to asset specificity implies singular investments which make the parties vulnerable to opportunistic actions. As more explicit formal contracts eliminate or mitigate the bargaining costs on the results of these assets, they tend to protect the participants from costs associated with changes of preferences of the parties, while the use of relational governance could depend on other factors such as the faith the parties place

Table 3
Transactional characteristics and the type of governance structure according to the literature.

Characteristics of the relationship which determine the vulnerability of the parties	Type of governance structure (formal/relational)	Authors
Dependence	Need for formal contractual governance sophistication; the parties are relevant in determining the governance structure.	Poppo and Zenger (2002), Schepker et al. (2014)
Uncertainty (task and environmental)	Incomplete contracts; need for relationship coordination and adaptation, relational governance becomes relevant. Still, environmental uncertainty results in less complex contracts.	Artz and Bush (2000), Cannon et al., 2000, Crocker and Reynolds (1993), Williamson (1979), Zhou et al. (2008)
Difficulty in measuring performance	More contractual sophistication; certain contractual flexibility. In case of expectancy of relationship continuity, the relational clauses contribute to the reduction of risks arising due to the difficulty in measuring performance.	Mouzas and Blois (2013), Poppo and Zenger (2002), Poppo et al. (2008)
Asset specificity	Need for contractual governance sophistication; more complex contracts. Stricter contractual provisions. Contracts focused on safeguarding the parties. More contractual detailing would tend to reduce risk, decreasing the need of reliability.	Arranz and de Arroyabe (2012), Crocker and Reynolds (1993), Joskow (1988), Lui et al. (2009), Malhotra and Munigham (2002), Reuer and Arino (2007), Riordan and Williamson (1985), Schepker et al. (2014), Williamson (1979), Zhou and Poppo (2010)
Transaction frequency	The greater the relationship frequency, the more information about the other party, and the less relevant the formal contract is. The lower the frequency and the less information about the other party you have, the more relevance the formal contract has.	Poppo and Zenger (2002) Williamson (1985)
Duration of relationship	The longer the relationship, the more relational governance is used in conducting inter-organizational relationships, due to the reduction of uncertainty and increase in reliability between the parties. In the use of formal governance, greater contract specification is possible. The less history between the parties, the less the tendency to develop relational practices and norms.	Crocker and Reynolds (1993), Luo (2002), Poppo and Zenger (2002), Poppo et al. (2008), Tsamenyi et al. (2013)
Expectation of relationship continuity	The expectancy of relationship continuity decreases the short-term horizon of the parties, thereby also decreasing the tendency of opportunistic behaviors, and having greater relational presence.	Poppo and Zenger (2002), Williamson (1993)

Source: Elaborated by the authors, from the work mentioned.

in the legal system (Crocker & Reynolds, 1993; Joskow, 1988; Schepker et al., 2014; Williamson, 1979).

Frequency

The literature in TCE points to the supplanting of the courts by arbitration in cases of greater intensity of this dimension, since it is more oriented to the continuity of the transactions between the parties. Thus, formal contracts would serve as guides for conducting the relationship, and the social and relational processes play a relevant role in governance when promoting norms which generate flexibility, sympathy, and information exchange (Batenburg et al., 2003; Poppo & Zenger, 2002; Williamson, 1985).

Duration of the relationship

In relationships in which the parties present stable interaction standards promoted by repeated collaborations, there is a tendency to increase coordination and cooperation through the familiarity between the parties, which is necessary for the development of relational governance. Therefore, companies which interact for longer tend to adopt less complex contracts, with fewer clauses, and which contain provisions oriented to the coor-

dination of the relationship (Poppo & Zenger, 2002; Reuer & Arino, 2007; Williamson, 1979; Zollo et al., 2002).

Expectancy of relationship continuity

Formal contracts used in relationships with undetermined periods, and in relationships with pre-fixed periods, present different contractual provisions, and there would be a tendency to use clauses of an enforceable nature in the last condition. Therefore, relational norms of cooperation and mutual cooperation have an important role in providing flexibility to cooperate in the unexpected contingencies that cannot be avoided over time, preserving the stability of the relationship. Since the formal contractual specifications for the coordination of expected behavior are imperfect, further relational mechanisms may be used to extend the longevity and continuity of the relationship (Klein, 1995; Poppo & Zenger, 2002; Reuer & Arino, 2007; Zhou & Poppo, 2010).

Having presented and summarized our review of the tendency to use various governance structures in the case of different transaction characteristics in Tables 2 and 3, Table 4 presents this study's propositions, which are based on the following premises: (i) that transaction characteristics generate different risks; (ii) that such risks demand several formal and relational

Table 4
Study propositions.

Propositions	Transaction characteristic	Tendency of the role of formal contracts	Tendency to formal structures	Tendency to relational structures
1st.	Dependence	Coordinate	+	−
2nd.	Uncertainty	Adapt	−	+
3rd.	Measurement difficulty	Safeguard	+	−
4th.	Asset Specificity	Safeguard	+	−
5th.	Frequency	Coordinate	−	+
6th.	Duration of the Relationship	Coordinate	−	+
7th.	Expectation of continuity	Coordinate	−	+

Source: Elaborated by the authors.

governance compositions; and (iii) that formal contracts may present different clauses and functions in the various contexts.

The "+" and "−" signs used in the table above aim to represent the tendency to the use of formal and relational governance types with greater or lesser intensity, since the theoretical foundations are discussed from a complementarity perspective. Thus, it is expected that: (i) if there is dependence by one of the parties in the relationship, formal contracts will have greater weight in the governance, containing clauses which lead to coordinating interaction; (ii) in case of uncertainty, the formal contracts would be used to help adapt, but relational contracts would be more relevant; (iii) in relationships where there exists difficulty in measuring performance, there would be a tendency to use predominantly formal contracts, mainly composed of safeguard clauses; (iv) asset specificity would bring the same governance structure as difficulty in measuring performance; (v) the frequency of transactions would imply the use of relational governance, and formal contracts composed by coordination clauses; (vi) the duration of the relationship between the parties and (vii) the expectancy of the relationship continuity would tend to demand the same governance structure as the "transaction frequency" characteristic.

After the propositions were discussed in theoretical terms, they were analyzed empirically before elaborating the model. In the next entry, the methodology used to do so is presented.

Methodology

The present study aims to propose a model for analyzing the tendency to use formal governance structures for the relationships between companies, through an analysis of formal contract complexity and function, and the tendency to use relational structures, taking into account several transactional contexts.

As it is a model proposition, the present research is classified as qualitative-exploratory. Martins and Theóphilo (2007) highlight that, in qualitative studies, the data, information, and evidence are not subject to measurement, making it necessary to describe, understand, interpret, and analyze information that is not expressed in data and numbers.

Considering the exploratory nature of the research, the techniques of interview and analysis of content are suitable because they enrich the attempt to sound out the data gathered, increasing the tendency for discovery (Bardin, 2011, p. 35; Martins & Theóphilo, 2007).

The data for the application of the technique of Content Analysis were obtained by means of structured interviews and written contracts. The interview was structured in three question groups, namely: (i) questions referring to the use of norms which establish relational contracts; (ii) questions regarding the formal contractual composition for the complexity and function of the formal contract; and (iii) questions about the transaction characteristics present in the relationship analysis.

In order to obtain more accuracy in the data analysis, Jick (1979) points out the triangulation process. The author highlights that this process can be applied by means of the use of different methods (i.e. between-methods). In the case of qualitative studies, multiple group comparison or cross checking can be used to ensure the data's inner consistence and reliability (i.e. within-method).

Intending to obtain greater inner reliability in an exploratory study, it was decided to (i) elaborate an interview script from the structure of data collection already tested in papers published in the field; (ii) use more than two questions for each variable (except the "relationship duration" and "transaction frequency" variables); (iii) carry out the interview with six companies which have different transactional characteristics in the relationship, enabling case comparison; and (iv) collect data about the formal contractual content by means of interviews, and paper documents in the relationships which used formal contracts.

The use of multiple metrics for each variable maximizes the elucidation of variations which would possibly be neglected in case just one measure was used (Jick, 1979). Therefore, an interview script from two to seven questions per variable was used, and each question was approached with statements and negatives in order to capture inconsistency in the answers. In Table 5, the constructs, the variables observed, the works on which the protocol is based, and the number of questions applied for each variable are presented.

In order to make it possible to observe the relational governance, the typical norm scale of the Relational Contract Theory was used, allowing us to check the intensity of the use of this governance type in the conduct of the relationships, promoting the understanding of the variation in Macneil's spectrum (Blois & Ivens, 2007; Kaufmann & Dant, 1992; Macneil, 1978).

To observe the use of formal governance structures, the "complexity" variable was employed to assess how intensely formal contracts are used in the relationship conduction, since more detailed contracts tend to reduce the need for relational

Table 5
Constructs, variables, interview protocol grounds and number of questions per variable.

Constructs	Variables analyzed	Work that base the interview protocol	Number of questions per variable
Relational governance structure: norms analyzed from the Theory of Relational Contracts	Integrity function	Kaufmann and Dant (1992)	7
	Relational focus (composed by the planning norms and consent establishing)	Kaufmann and Dant (1992)	5
	Reciprocity	Kaufmann and Dant (1992)	5
	Sympathy		7
	Power limitation	Kaufmann and Dant (1992)	4
	Harmonization with the social framework – conflict resolution	Kaufmann and Dant (1992)	2
	Flexibility	Kaufmann and Dant (1992)	5
	Adequacy of means	Blois and Ivens (2007)	3
Formal governance structure: formal contractual content and complexity – basis in the contract literature	Prevailing contractual function (presence/lack of safeguard clauses, coordination, adaptation)	Mallewigt et al. (2012), Parkhe (1993)	11
	Contractual complexity – presence/lack of clauses which indicate complexity		8
Transactional characteristics – basis in the Theory of Transaction Costs Economics and literature in inter-organizational relationships	Dependence	Heide (1994)	4
	Uncertainty	Artz and Bush (2000)	3
	Difficulty in measuring performance	Weber et al. (2011)	2
	Asset specificity	Artz and Bush (2000)	3
	Transactional Frequency	Poppo and Zhou (2014)	1
	Relationship duration	Poppo and Zhou (2014), Poppo et al. (2008)	1
	Expectation of relationship continuity	Heide and Miner (1992)	3

Source: Elaborated by the authors.

governance for risk reduction (Malhotra & Munigham, 2002; Parkhe, 1993; Poppo & Zenger, 2002; Reuer & Arino, 2007).

Nevertheless, it is argued that contractual complexity does not play the same role as formal contracts in the conduct of the relationship, and thus the types of clauses which form the contract are checked; these clauses are classified according to the model of Mallewigt et al. (2012), who considers which clauses would be more critical for the contractual functions of safeguarding, coordinating, and adapting. The typical clauses for each function are presented in Table 1. Additionally, the transaction characteristics were measured according to the methodological tools proposed by Heide (1994), Artz and Bush, (2000), Weber et al. (2011), Poppo and Zhou (2014), Poppo et al. (2008), and Heide and Miner (1992), according to Table 5.

After the data collection protocol had been elaborated, the interviews took place, carried out in person, recorded, and transcribed afterwards. The only exception was the interview of the manager of the mill, who preferred to be interviewed without being recorded. In this case, the data collection was done through notes. For the analysis of the formal content, it was possible to have access to the written contacts of three incubated companies, while in the other cases the data was obtained via protocol at the moment the interview was carried out.

In order to apply the technique of Content Analysis, six managers were interviewed in August and September of 2015. Three interviews described the contractual governance analysis of the incubated companies at different stages; another, the governance between a company within a formal conglomerate of companies and the conglomerate as a whole; another, the governance of a footwear company's relationship with its leather suppliers, both members of the same non-formalized conglomerate; and finally,

the relationship between a sugar mill and its sugar cane suppliers. The recorded interviews lasted 45, 74, 57, 62, and 77 min, respectively (Table 6).

The cases were selected in order to obtain a diverse sample of organizations, considering that all the relationships analyzed are part of a context which demands coordination outside a hierarchical structure. With a diverse group of companies, it was possible to analyze the model proposition in comparative cases. In the following section, the interview analysis is presented.

Analysis of interview content

For exploration and interpretation of the interviews, the Content Analysis method was used, and it was applied to the transcribed content following the order of the data collection protocol, beginning with the observation of transactional characteristics, followed by the composition of relational and formal contracts.

Bardin (2011) proposes that Content Analysis be carried out in three stages: (i) pre-analysis; (ii) exploration; and (iii) treatment of the results, inference, and interpretation. The author highlights that the pre-analysis phase includes the choice of documents, the formulation of the intended objectives, and the definition of the categories on which the interpretation is based.

The first stage of the Content Analysis is applied to the theoretical foundation for the structure of the interview script, since the constructs and variables selected from the literature formed the categories of the analysis. In the material exploration stage, a spreadsheet was developed showing the analysis categories included in the data collection protocol, in order to assess the presence and intensity of the constructs.

Table 6
Characterization of the interviewees.

Company	Economic sector of the company	Position of the interviewee	Relationship type in analysis
1	Biotechnology – production of techniques for DNA and RNA identification	Company owner	Relationship of pre-incubated company with the incubator
2	Technology – development of interaction platform for education	Company owner	Relationship of incubated company with the incubator
3	Biotechnology – service provider in quality certification in the field of biochemistry and projects incorporating new principles in cosmetics	Company owner	Relationship of associated company with the incubator
4	Medical and hospital equipment – equipment manufacturer	Company owner	Relationship of associated company to the formalized local productive arrangement
5	Footwear: production of children's shoes	Company owner	Relationship with the main input supplier
6	Agriculture: sugar mill	Contract Manager	Relationship with the main input supplier

Source: elaborated by the authors.

Afterwards, the spreadsheet was completed with excerpts from the interviews, and the words which corresponded to the analysis category were highlighted, with the emphasis given by the interviewees to their answers by the repetition of equal or similar words also taken into account. Aspects of the replies which were not within the structured questions, but which contributed to the exploratory aspects of the research, were also noted.

After the information was obtained from the material exploration, the treatment of the results, inference, and interpretation, enabled analysis of the propositions for elaborating the model within the limits of the cases observed. The structure used for understanding each one of the variables is demonstrated in the table, represented by the analysis of the variable "dependence" for the pre-incubated company.

Once the procedure described above was carried out, the profile of the relationships studied for the three analysis constructs was configured, considering the intensity (i.e. high, average, low) of the presence of the variables. After each variable that represents the transaction characteristics had been analyzed, the ones which had greater intensity in the transaction, i.e. which are present in the analysis relationship context, were allocated in the table.

The relationships were also analyzed concerning relational governance, and were classified on the spectrum proposed by Macneil (1981), who classifies the relationships as discrete (D), that is deliberately chosen, and relational (R), in which social norms and inner values are relevant in the relationship. The intensity of the norms described by the interviewees was checked, and afterwards the relationship was classified as either "tending to relational governance" (R), or "tending to discrete governance" (D) from the number of norms present in the relationships analyzed. Since it is an assessment spectrum, the moderate variation (R/D)—that is relationships which do not position themselves at the extremes of the relational spectrum—is also considered.

Finally, the formal contractual complexity, assessed in terms of intensity (i.e. high, average, low), was analyzed by the number of contractual clauses present, according to the model proposed by Parkhe (1993). The role played by formal contracts in the relationship was observed from the presence or lack of typical provisions of the contractual functions of safeguarding, coordinating, and adapting (Mallewigt et al., 2012) embedded in the contracts, enabling analysis of the predominant functions in the relationships. After the exploration and data interpretation stages had been fulfilled, a table of the summary of the analyses was developed. The results for each proposition are described next and presented in Table 7.

1st proposition

In a divergence from the foundations in the literature reviewed, it was not possible to observe, in the cases analyzed, the standard of dependence and greater contractual formality.

Even when there is high dependence intensity, the use of relational governance structures along with moderate formal contractual complexity can be observed. Such finding differs from the theoretical approach of transaction costs, which takes the perspective that if there is greater dependence, there is also need for a more sophisticated formal contractual governance in terms of complexity (Schepker et al., 2014).

The result observed seems to be in accord with theoretical approaches that note dependence as predecessor factor to the reliability formation, which would indicate the approach of a less formalized governance (Tsamenyi, Qureshi, & Yazdifar, 2013). In the lesser intensity extreme of the dependence characteristic (i.e. incubated company and sugar mill), the contractual complexity level was low, and there was a tendency for governance balanced between relational and discrete. Regarding the coordination function of formal contracts, it was not possible to corroborate the one proposed.

Nevertheless, when comparing the interviews, it is observed that the resource type which generates dependency may influence the interviewees' perception, as well as the life cycle of the companies. The "intangible" resources—described by interviewees as management and institutional knowledge, networking, access to potential clients, gain of market reliability in less time—tend to intensify the dependence perception.

Regarding the life cycle of the organizations, when comparing incubated companies in different stages, it was possible to identify that the dependence perception of more mature companies tends to be lower, and they also describe that dependence was greater in their early stages. Therefore, it is proposed

Table 7
Structure used for the analysis of the variables.

Company	Interview excerpt	Interpretation	Variable: dependency
1 – Pre-incubated	*"I would describe, in general, as a great difficulty"* (to replace the resources found in the current partnership). *(…) "There would be a lot of difficulty if we didn't have the relationship with the incubator (…)such a structure makes it easier"*. *"On the current condition we are, in the beginning and so on, there are a series of resources, a series of business knowledge"*. *"… (the change of structure) besides burdening, I am not sure we would make it, (…) I am not sure we could get anything more in our field in biotechnology because many times there may be (…) biotechnology has a little different profile, more to long term, so I don't think it would be that easy to find this kind of support"*.	Dependence perception of great intensity by the interviewee, since he mentions three times how difficult it would be to not have a relationship with the incubator.	High dependence perception of the relationship
		Dependence perception not only regarding the resources found in the incubator structure, but also issues concerning the life cycle of the company.	Perception of influence in the life cycle of the company.
		Perception of the difficulty of adapting the productive system in another structure.	Perception of influence of the company sector regarding dependency.

Source: Elaborated by the authors.

that dependence can be changed in relationships between more or less mature companies, and further that different types of transactional resources tend to change such perception. If such propositions were corroborated, the data collection methods should, thus, include such variation to better measure this variable.

2nd proposition

According to the theory of Transaction Cost Economics, the presence of uncertainty implies greater contractual costs, and therefore less complex contracts (Crocker & Reynolds, 1993; Williamson, 1985). Among the interviews analyzed, it was observed that in cases with greater uncertainty present, there is a tendency toward more discrete governance, and moderate contractual complexity. Likewise, in relationships with a lower uncertainty level, there is high formal contractual complexity and relational tendency in the governance, and the adaptation function has a moderate role in the formal contractual composition.

Thus, cases representing the extremes of greater or lesser uncertainty (i.e. footwear and incubated companies respectively) did not corroborate the proposition regarding the presence of uncertainty and lower intensity of governance formal structures.

Nonetheless, such checks show a complementarity perspective, not the substitution of governance forms in case of uncertainty. It is also highlighted that the function of the formal contract is not corroborated even in cases of high intensity of this characteristic. In relationships with intermediate levels of uncertainty present, a standard behavior of the characteristic cannot be verified.

Moreover, in the analysis, it was observed that the life cycle of the company appears as a factor related to uncertainty, since the interviewees highlight that at the beginning of the company's operations, it is not possible to really know the acceptance level of the product in the market. Thus, the analyses promote evidences that uncertainty could alter the way organizations in the initial stages, and more mature ones, govern their inter-organizational relationships.

Even though the scales analyzed within the theoretical perspective used in this work present a high level of reliability, institutional aspects such as the operation of the organizations in international markets; or changes in public, economic, and tax policies which affect the company, were not considered in the data collection tools reviewed for this work. However, they were presented by the interviewees as factors which alter the perception of uncertainty, and consequently the manner of contracting between companies.

3rd proposition

Regarding the difficulty of measuring performance, it was observed that companies exhibiting a higher level of this characteristic (i.e. incubated companies) present a high level of formal contractual complexity and function of high intensity safeguarding, without a tendency to use relational governance. Such observations are in agreement with the literature reviewed, since the presence of governance relational norms may generate incentives to the parties to take advantage of the informational asymmetry originated from the difficulty in measuring performance (Jap & Anderson, 2003), and formal contracts have relevance in third-party monitoring of the relationship (Poppo & Zenger, 2002).

In cases in which the difficulty of measuring performance presents at low intensity, it was confirmed that the contractual complexity ranges from low to moderate, and the function of safeguarding the formal contract ranges from high to moderate intensity. When comparing the two extreme cases, there is evidence that, in cases where difficulty in measuring performance was more intense, the proposition is corroborated. Nevertheless, the function of formal contracts was not different from cases with higher or lower characteristic intensities.

It was observed in the analysis of previous propositions that the life cycle appears as a mitigating variable of the perception of transactional characteristics. Likewise, in cases of difficulty measuring performance, the life cycle of the organization seems to influence the way the companies contract between themselves when one of the parties is at an earlier stage.

Other factors, such as differences in cultural aspects and the type of traded resources (i.e. involving technology or innovation), seem to alter the perception of difficulty in measuring performance. Therefore, it could be expected that if the contracting parties come from extremely different cultural environments; or trade resources which result from processes with greater specificities, or even resources with characteristics which are not easily distinguishable, the measurement of the performance of the relationship and the definition of the governance structures would be hindered. Regarding the cultural aspect, the result observed seems to be in accordance with the finding of Steenkamp and Geyskens (2012) about the need of integration between the TCE and the cultural theory in order to widely understand companies' governance choices.

4th proposition

When analyzing asset specificity, it was observed that a greater intensity of this characteristic is present in relationships with moderate contractual formality, and a safeguard function ranging from high to moderate intensity, presenting low use of relational norms and tending to discretion. Such observations are in accordance with the TCE. According to the approach mentioned, asset specificity implies a more sophisticated formal contractual governance, due to the difficulty in transferring resources which had already been invested, at low cost, in another relationship (Williamson, 1979).

In cases of no or low asset specificity, contractual complexity was presented in three levels: low, moderate, and high, and the safeguard function of the contracts had the same behavior. Thus, it was only possible to have the fourth proposition corroborated in cases in which the asset specificity level was more intense.

Such checks may indicate a complementarity perspective between formal and relational norms in cases in which asset specificity is less intense. Since the contractual complexity may vary according to the intensity of asset specificity, it can be inferred that there is room for a relational perspective in this relationship type. From this perspective, the presence of specific assets could motivate cooperation between the parties by increasing of reliability between them, and complex contracts are used less (Lui, Wong, & Liu, 2009).

Considering that specific assets may present specificity categories such as place, time, human capital, and type of dedicated assets (Williamson, 1985), it is suggested that such characteristics be categorized for the purpose of data collection. This consideration is due to the fact that the interviewees highlight the industry sector as a factor which tends to alter the need for specific investment to the relationship, and such variable can be included in the model for the purpose of control when checking the interaction of the contractual characteristics for a broader sample.

5th proposition

In the analyses concerning frequency, it was observed that there is a greater tendency to relational governance in relationships in which the parties interact daily, which is in accordance with the literature, whereby the task fulfillment, promises, and expectancy of the relationship take place by a social process in relationships with greater interaction (Poppo & Zenger, 2002). Moreover, the interviewees highlight that several relational governance norms, such as level of sympathy, power limitation, harmonization with the social framework, flexibility, reciprocity, and adequacy of means tend to be used as main governance structures in the governance of more frequent relationships.

It is pointed out by the interviewees that although formal contracts have a high level of complexity, even in the most frequent relationships, they are used as a supplemental governance tool for coordination. Such observation reinforces the proposition to consider not only formal contractual complexity as a means of confirming this type of governance, but also in the functions such contracts have.

It is also proposed to observe the way formal contracts are used in the relationship governance, expanding the understanding of the interaction and complementarity of formal and relational structures. The life cycle of the companies was highlighted as a factor which may influence the frequency of interaction between the parties, mainly in the case of the transactional characteristic of dependence. More mature organizations, which have alternatives for obtaining resources and which are more independent in terns of positioning themselves in the market without resorting to just one relationship, tend to interact with less frequency. Thus, from the cases analyzed, it is proposed that companies which are more dependent on the relationship tend to interact with greater frequency, using relational contracts at first.

6th proposition

Regarding the duration of the relationship, the literature suggests that a longer bond contributes to the effectiveness of cooperative agreements (Zollo et al., 2002), indicating the expected use of relational norms. Nonetheless, it was observed that even in relationships with shorter duration, the use of relational norms is not absent.

In shorter–duration relationships (which range from three and a half months to four months), it was seen that the levels of formal contractual complexity were moderate and high, and the coordination function was moderate. Considering the three cases which present the same relationship duration (three years) for comparative analysis of equal pairs, discerning a standard regarding formal contractual complexity, which ranged from the lack of contract to moderate complexity, was not possible either.

The interviewees point to different uses of formal contracts in different stages of the relationship, and this governance type was used with greater intensity in shorter relationships. Thus, from the qualitative analysis, it is proposed that the intensity of use of formal and relational structures vary during the relationship.

7th proposition

When analyzing the expectation of continuity, homogeneity between the cases was identified; however it was impossible to identify the inference standard of the seventh proposition,

neither as regards the relational governance structure, nor the complexity level of formal contracts and their functions. Therefore, despite the fact the expectation of continuity appears in the literature review as a characteristic which can interfere in the governance structure of the relationships, it is not a determinant characteristic in the cases studied.

Nonetheless, it was observed in the interview analysis, that factors such as the relevance the traded item has in the production process, and even the difficulties the organizations would have in replacing their partners or way of trading, would change the expectation of continuity of the relationship. Thus, it is proposed that the dependence level influences this expectation, and it is relevant to analyze the way such influence would take place. Table 9 presents the summary of the proposition analyses, and presents the aspects explored from the case analysis.

Since this is an exploratory, not confirmatory, research, other remarks which do not refer to verifying propositions, but which contribute to the elaboration of the model presented in Fig. 2, are presented herein. It is pointed out that the remarks highlighted were obtained from the limited number of cases, so other studies for the confirmation of the propositions obtained from the Content Analysis are necessary.

Therefore, the model proposition presented in Fig. 2 is based on three pillars, which are presented in Fig. 1: (i) transac-

tional characteristics; (ii) formal governance of the relationship; and (iii) relational governance. The main characteristics which form the context of the relationships were extracted from the TCE and the literature on inter-organizational relationships, and it is argued that the presence or lack thereof, and even the intensity of these characteristics tend to influence the complementarity between the structures of formal and relational governances.

For this purpose, the functions that formal contracts could have in cases of transactional characteristics were presented in Table 2, and it is argued that, from the literature, these contracts could present different functions (i.e. safeguard, coordinate, and adapt). Nevertheless, the formal contracts may vary both in function and complexity. Knowing that formal and relational contracts may complement each other, Table 3 presents the expectations of governance structure reviewed in the literature, which would tend to be used in inter-organizational relationships for each characteristic considered in this work.

The items reviewed in the literature and presented in Tables 2 and 3 were useful as a basis for the theoretical propositions of the model, shown in Table 4. The variables used for collecting data and measuring the three constructs are presented in Table 5, together with the references used for setting the data collection structure. After the interviews were analyzed, Table 8 presents the summary of the observations of the cases, which
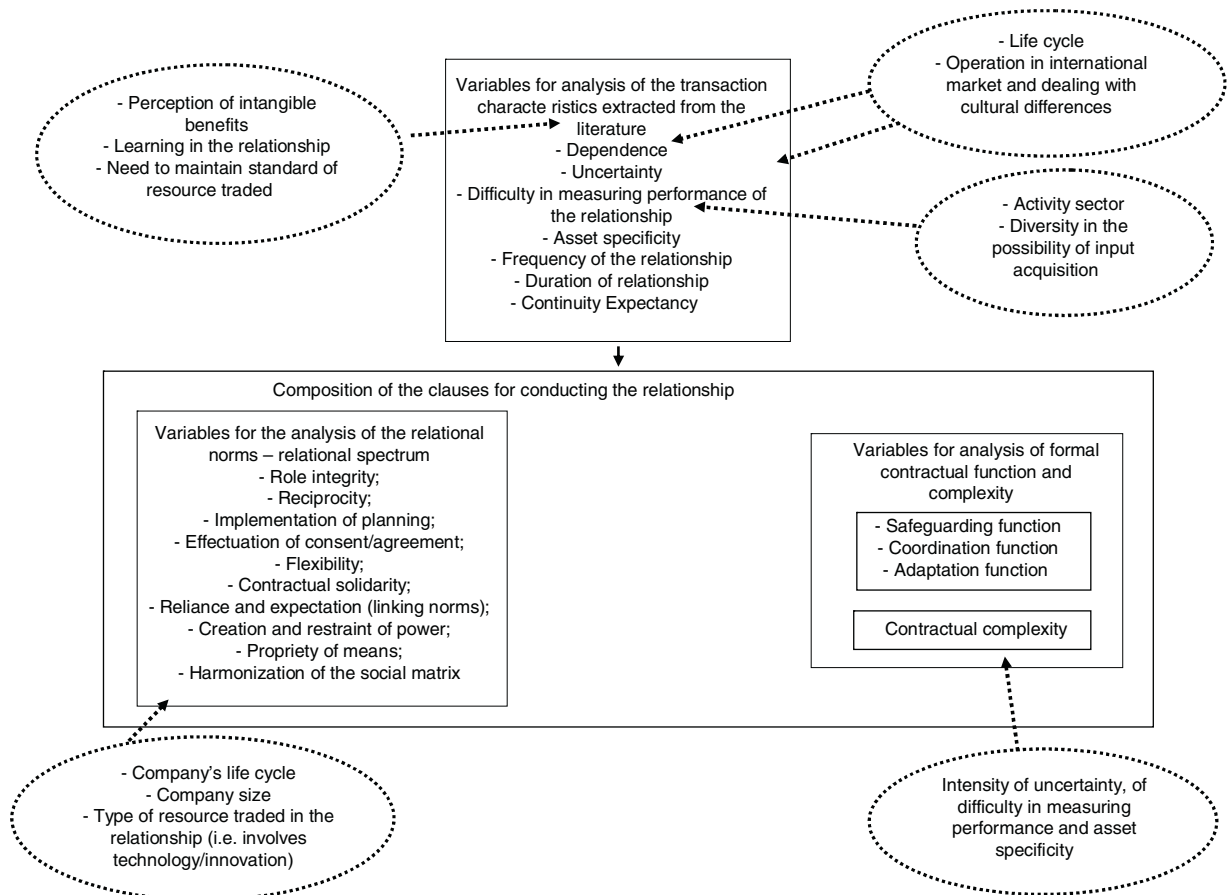

Fig. 2. Model proposed for analysis of the transaction characteristics, formal and relational contractual content, and exploratory aspects of the research.

Source: Elaborated by the authors.

Table 8
Summary of the analysis of relational tendency, function tendency, and formal contractual complexity, and predominance of contextual characteristics.

Constructs	Variables analyzed	Pre-incubated	Incubated	Associated	Medical hospital equipment	Footwear	Mill
Relational governance structure	Integrity role	High – R	Moderate – R/D	Moderate – R/D	Moderate – R/D	Low – D	Lack – D
	Discretion increase (implementation of planning and effectuation of consent)	Low – R	Moderate – R/D	High – D	Low – R	Moderate – R/D	High – D
	Reciprocity	Moderate – R/D	Moderate – R/D	Low – D	High – R	Low – D	Low – D
	Contractual solidarity	High – R	High – R	Moderate – R/D	Moderate – R/D	Low – D	High – R
	Creation and restraint of power;	High – R	High – R	Moderate – R/D	High – R	Moderate – R/D	High – R
	Harmonization of the social matrix	High relational – R	High relational – R	Moderate relational – R/D	High relational – R	Moderate formal – D	High relational – R
	Flexibility	High – R	High – R	High – R	High – R	Moderate – R/D	Low – D
	Propriety of mean	Moderate – R/D	Moderate – R/D	Moderate – R/D	High – R	Moderate – R/D	Alta – R
	Spectrum of discrete relationship and relational tendency	Relational tendency	Relational tendency with lesser intensity	Discrete relationship tendency	Relational tendency	Discrete relationship tendency	Balanced relational and discrete tendencies
Formal governance structure	Predominant contractual function	Balance among the three functions	Predominance in the safeguard function	Balance between the safeguard and coordination functions	Lack of formal contract	Predominance of safeguard function	Predominance of safeguard function
	Contractual complexity	Moderate	High	Moderate	Lack of formal contract	Moderate	Low
Transactional characteristics	Characteristics of the transactional context with greater intensity	Dependence; expectation of continuity	Difficulty in measuring performance; expectation of continuity	Asset specificity; expectation of continuity	Expectation of continuity	Uncertainty; asset specificity; expectation of continuity	Expectation of continuity

Source: Elaborated by the authors from the data collected.

serve as a basis for analyzing the propositions. Table 9 summarizes not only the analysis of the propositions extracted from literature, which serve as a basis for the model proposition, but also interpretations obtained from the content analysis and which lead to new relationships to be considered in the model and tested in the future.

In Fig. 2, the illustration which represents the model proposed is presented, considering the items explored in the data analysis. The dotted illustration represents the explored factors which may alter the variables that form the transaction characteristics and the formal and relational contractual governance structures reviewed in the literature.

Final considerations

The goal of this paper was to propose a model for the analysis of how transactional characteristics influence the function and the content of formal contracts, and the content of relational contracts, based on the Theory of Transaction Cost Economics (TCE), the literature in formal contracts, and the Relational Contract Theory.

Given the application of the Content Analysis method, it was observed that the contextual characteristics "uncertainty", "difficulty of measuring performance" and "asset specificity" corroborate the presence of greater contractual formality in the

Table 9
Summary of the analysis of the propositions and aspects observed from the case analysis.

	Propositions		Observations regarding the propositions drawn from the literature	Aspects explored from the case analysis for the model composition
1st	Dependence	> Contractual formality Coordination function	Proposition not corroborated.	Dependence may be altered due to the life cycle of the contracting parties and the type of resources traded. If such propositions were corroborated, the data collection method should include such variations to better analyze the influence of dependence between the parties and its effects on the relationship governance.
2nd	Uncertainty	> Contractual informality Adaptation function	Proposition not corroborated, even in extreme cases of greater or lesser uncertainty. Contractual function not corroborated.	Variations in the institutional aspects (i.e. organization's operation in the international market, perception of consistency in public, economic, and tax policies which affect the organization) influence the uncertainty perception, and consequently the contracting form between the companies.
3rd	Difficulty in measuring performance	> Contractual formality Safeguarding function	Corroborated in cases in which the difficulty of measuring performance is intensive. Contractual function not corroborated.	In case of difficulty in measuring performance, the life cycle of the organization seems to influence the way the companies contract. Cultural differences hamper the measurement of performance, altering the governance structures.
4th	Asset specificity	> Contractual formality Safeguarding function	Corroborated in cases with greater intensity of asset specificity. Contractual function corroborated.	The industry sector tends to alter the need for specific investment to the relationship. The use of this variable in the model would play the role of controlling the interaction of asset specificity and governance form for a broader sample.
5th	Frequency	> Contractual informality Coordination function	Proposition for more frequent interaction corroborated.	In the most frequent relationships, the relational governance structures tend to be used along with formal contracts, which are not viewed as coordination tools, so it is proposed that the way the contracts are used by the parties be analyzed. The life cycle of the organizations, along with the transactional characteristics of dependence, tend to increase the interaction of the organizations, using mainly relational contracts.
6th	> Duration of relationship	> Contractual informality Coordination function	Proposition not corroborated.	The interviewees point to different uses of contracts in different stages of the relationship. The intensity of the use of formal and relational governance structures vary during the relationship.
7th	> Expectation of continuity	> Contractual informality Coordination function	The presence of expectations was homogeneous in the cases, and was not considered a variable which differentiates the standards of contractual governance structure.	It is proposed that the dependence level of the partner influences the expectation of continuity of the relationship, altering the way the transactions are governed.

Source: Elaborated by the authors from the data collected.

relationship in the extreme cases of lower and higher intensity of these characteristics. Surprisingly, the characteristic of expectation of continuity appears in a homogeneous way in all the cases analyzed, making it impossible to indicate this variable as having a distinctive function in the composition of governance structure.

In the analysis of the exploratory aspects of the work, other factors which may influence the composition of the contract, besides those reviewed in the literature, were observed. Intangible benefits such as knowledge exchange, learning, and maintenance of quality standard of the resource traded seem to influence the dependence perception the companies have toward the other party. Thus, it is possible to infer that the dependence perception may not be altered just by the level of investment in specific assets.

In the assessment of the variables "uncertainty" and "difficulty of measuring performance", aspects such as the life cycle of the organization, operation in international markets and different business cultures appear as factors which influence the behavior of those variables. The activity sector of the company and the existence of diversity in ways of obtaining inputs also seem to alter the level of investment in specific assets, indicating an opening for more detailed comprehension and measurement of the variable.

Concerning the positioning of the relationships in the relational spectrum (i.e. tending to the relational or discrete extreme), it was seen in the interviews that the life cycle, company size, and the type of input traded (i.e. presence or absence of technology and innovation in the contracted resource), appear as aspects which alter the position of the relationship in the relational spectrum, indicating that such factors could also form the model of the contractual content analysis. While on relational content, it was not possible to check homogeneity in the composition of the relational norms used, corroborating the perspective that the composition of the transactional characteristics also influences the intensity with which relational norms are used.

In the analysis of the formal contractual content (i.e. functions and complexity levels of formal contracts), it was seen that the complexity of formal contracts tends to be influenced by the presence of greater uncertainty intensity, difficulty of measuring performance, and asset specificity. Concerning the formal contractual functions, it is highlighted that in the cases analyzed, the contractual function was corroborated only in the cases in which asset specificity is more intense.

Limitations of this study include sample size, and not taking into account possible interaction between the transaction characteristics considered. There is a need to apply the model to larger samples, employ statistical techniques for generalizations, and consider the inter-relationship of the characteristics analyzed.

Nonetheless, the current study aimed to explore and propose an initial model for analysis of formal and relational governance structures, which enables the execution of future studies, such as: (i) the use of the model in larger samples and the use of quantitative techniques; (ii) the use of the model considering the factors explored in an additional way to the theory which underpins this research; (iii) examination of the formal and relational

contractual composition in conducting the relationships inserted in different organizational forms; (iv) examination of the behavior of the variables which tend to influence the contractual composition, enabling the understanding of factors which shape the relationships in different transactional contexts; (v) analysis of why only the extreme cases corroborate with the propositions 2, 3 and 4; (vi) analysis of the relationship governance from the composition of typical contracts and managerial practices and tools, for discussion of the complementarity/substitution of structures and mechanisms of control of the relationship between companies; (vii) insertion of the variable "trust" in the model to check the way this would alter, or not, the use of mechanisms/structures of governance; and finally (viii) analysis of the interaction between the transactional characteristics.

Conflicts of interest

The authors declare no conflicts of interest.

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