
TRANSACTION COSTS, MEASUREMENT COSTS AND STRATEGIC RESOURCES: COMPLEMENTARITY IN THE STUDY GOVERNANCE STRUCTURES

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Abstract

The objective of this study is to understand how governance structures are formed, considering transaction costs, measurement costs and strategic resources. To that end, bibliographic research was carried out in order to explore the complementarity of three theories: Transaction Cost Theory (TCT), Measurement Cost Theory (MCT) and Resource-Based View (RBV). A combined approach indicates that having strategic resources (RBV) may characterize a property right that needs to be protected by governance structures that consider transaction attributes and behavioral assumptions (TCT) and the measurability of resources involved (MCT) in transactions.

Keywords: Transaction costs. Measurement costs. Strategic resources. Governance structures.

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1. Introduction

The main thread behind this work regards the transactional and strategic characteristics that influence *make or buy* decisions in organizations. In other words, understanding the guidance and outlook in the decisions to internalize or outsource production, establishing relationships with other companies. Understanding the motivating aspects responsible for these decisions shows the way to comprehending organizations, in their traits, boundaries, and relationship and production dynamics.

At the core of these decisions is the choice of governance structures, understood as the forms used by agents to organize their transactions. These structures are defined between the choice for arrangements that prioritize in-house production of activities or products, which is done by vertical integration, or by acquiring them externally, which can occur through agreements with third parties or on the free market, as specified by Williamson (1975, 1985, 1996).

With regard to the choice of governance structures, some theories were developed in an attempt to serve as guidance in decision-making and enable greater organizational efficiency. Traditionally, some New Institutional Economics (NIE) approaches have been used, particularly Transaction Cost Theory (COASE, 1937; WILLIAMSON, 1975, 1985, 1996; KLEIN; CRAWFORD; ALCHIAN, 1978; ZYLBERSZTAJN, 1995, 2009) and Measurement Cost Theory (COASE, 1937; BARZEL, 2003, 2005; ZYLBERSZTAJN, 2009). In this context, the minimization of Transaction costs and measurement of agent coordination emerge as the main aspects in determining the appropriate da governance structure.

More recently, some scholars have looked at Resource-Based View (RBV) for theoretical foundations on the configuration of governance structures (LANGLOIS, 1992; LANGLOIS; FOSS, 1997; POPPO; ZENGER, 1997; COMBS; KETCHEN, 1999; JACOBIDES; WINTER, 2005; ARGYRES, ZENGER, 2008, 2012; SAES, 2009). In general, these authors evidence the importance of the condition of the strategic resource¹ in the decisions whether to internalize or outsource production, reinforcing the strategic focus inherent to theories.

When considering the proposed approaches, it should be emphasized that, in TCT, transaction costs are reduced as an alignment occurs between governance structures, transaction attributes (**asset specificity, frequency and uncertainty**) and the existing behavioral assumptions (**bounded rationality and opportunism**) (WILLIAMSON, 1985). According to this approach, if external transaction costs are greater than internal governance costs, the company tends to integrate vertically. A decisive element in this decision towards internalization is the specificity of transacted assets, which can take place either in location, physical and human terms, or in terms of dedicated, temporal and brand assets (WILLIAMSON, 1996).

MCT, proposed by Barzel (2005), implies in accepting that transaction attributes alone could not explain the choice of governance structure, requiring other dimensions involving the guarantee of **property right**, the condition of **measurement** and **information** on transacted assets. Other aspects that can be identified as influencing the definition of

governance structure, from the theoretical-analytical scope of MCT, refer to **standardization** (BARZEL, 2003, 2005) and **control rights** (HART; MOORE, 1990). Under these conditions, the company would seek vertical integration if the measurement costs of the assets involved in the exchange were high.

RBV indicates that the resources and differentiated capabilities a firm possesses are responsible for creating and sustaining its competitive advantages (PENROSE, 1959, WERNEFELT, 1984; BARNEY, 1991; PETERAF, 1993). According to these authors, distinguishing resources exist due to the assumption of the **heterogeneity of firms** – that is, the approach considers that companies are different sets of resources that complement one another and generate different competitive capabilities. These competitive capabilities are achieved only because they are built over the **path dependence** of the company (TEECE; PISANO; SHUEN, 1997) – that is, on the particulars of its historic trajectory. They generate competitive advantages by creating **Ricardian rents** – higher income due to possession of these resources that are scarce in the market (BARNEY, 2007). Under this perspective, the company would integrate vertically, aiming to protect and control the strategic resources over which it has capacity or aiming to create income by sustaining a superior capability over its competitors.

Following this line of thinking, in addition to the basic aspects of these approaches, three central constructs can be identified that determine the choice of governance structures based on the theoretical approaches presented herein: **Transaction costs (TCT), measurement costs (MCT) and strategic resources (RBV)**.

This work proposed a perspective of complementarity between all three approaches, in an attempt to better explain the specificities present in the transactions and undertake a more complete analysis of the determinants of the boundaries of the firm. Similar attempts have been observed in the literature for the Theory of the Firm. One of them refers to the integration of RBV and TCT (LANGLOIS, 1992; WILLIAMSON, 1999; COMBS; KETCHEN, 1999; MAHONEY, 2001; LEIBLEIN, 2003; FOSS, 2005; JACOBIDES; WINTER, 2005; ARGYRES; ZENGER, 2008, 2012; SAES, 2009, AUGUSTO; 2011). In addition, RBV has also been linked to Strategic Position Analysis – SPA (MONTGOMERY; PORTER, 1998; NICKERSON, 2003; SAES, 2009) and Knight's Theory of Profit – KTP (NICKERSON; ZENGER, 2004; SAES, 2009). TCT, for its part, has also been discussed for its links to MCT (ZYLBERZSTAJN, 2005, 2009). Nevertheless, no studies have been observed that aim to discuss a complementary perspective of TCT with MCT and RBV.

Therefore, in the present investigation, transaction costs (TCT), measurement costs (MCT) and strategic resources (RBV) are considered together to explain the formation of governance structures in the strategic context of organizations. As such, this work aims to **understand how governance structures are formed by considering transaction costs, measurement costs and strategic resources**.

To meet that objective, the study presents this first section to introduce the proposed theme. The second section indicates the methodological path employed, identifying the guiding categories and subcategories of the suggested proposition of complementarity. The presentation of the theoretical reference used on TCT, MCT and RBV, focusing on building propositions of their complementary aspects, is done in the third section. The fourth section contains the final considerations acquired from the analysis of the collected materials. Lastly, references are provided.

2. Methodology

This is a bibliographic research study, of a qualitative nature and descriptive type. The analysis and interpretation of the obtained data were carried out using the content analysis method. Bardin (2004) indicates three basic stages for a work using this method, which were used in this investigation: 1) Pre-analysis: in which the theme, theoretical reference, objectives and methodology were defined; 2) Descriptive analysis: organization and description of the collected data, comprising: a) coding through classification (intensity and direction of ideas observed in the theoretical review undertaken); b) categorization – definition of categories to be worked from the theoretical reference and objectives presented; 3) inferential interpretation: understanding the phenomena from the collected material, search of answers for the listed objective, detected contradictions, and, lastly, elaboration of conclusions.

The general assumption of the present investigation indicates that governance structures are configured by combined consideration of transaction costs, measurement costs and strategic resources involved in intra- and inter-firm coordination. As such, **transaction costs, measurement costs, strategic resources and governance structures** represent the categories of the present study, with an existing set of subcategories for each category, to aid the analysis and guidance in discussing the complementarity of the proposed approaches. This reasoning can be observed in Figure 1.

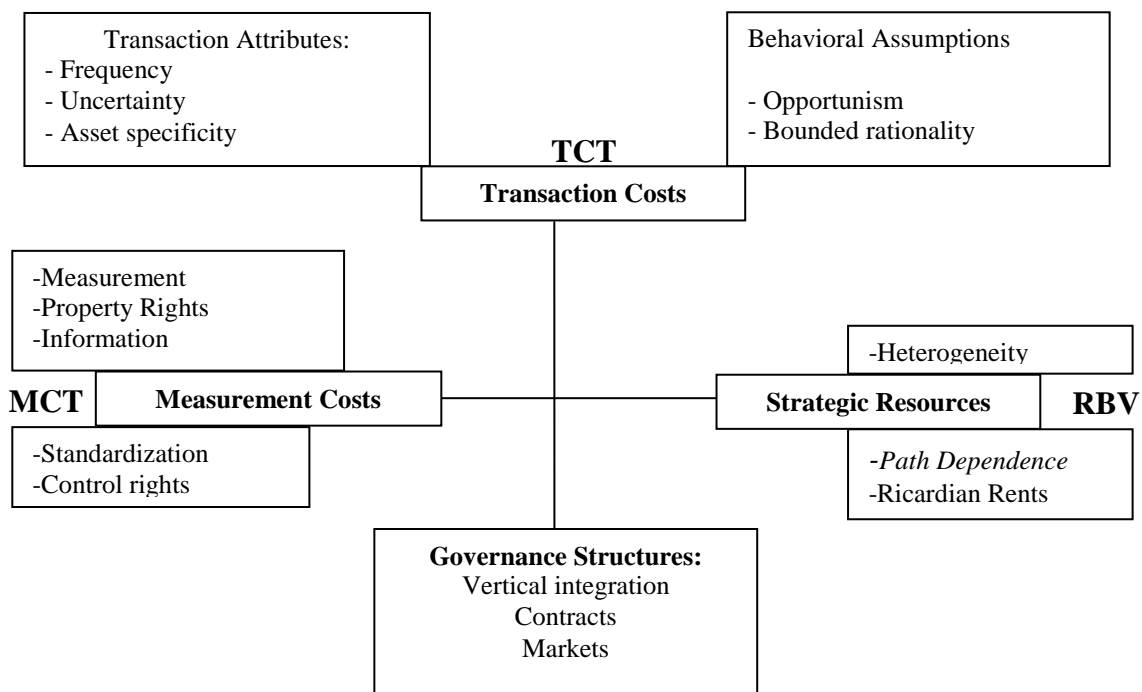


Figure 1. Categories and subcategories under study
 Source: Formulated by the author.

3 Theoretical Reference: Proposition of Complementarity Between TCT, MCT and RBV

In this topic, some propositions are made regarding the complementarity of the three discussed approaches: RBV, TCT and MCT, combined. It is considered that, individually, TCT and MCT are related, respectively, to the possibility of reducing transaction costs and guaranteeing property right in measurable dimensions. RBV, for its part, focuses on identifying and exploring strategic resources and capabilities for the organization, capable of sustaining a competitive advantage against its market competitors.

Figure 2 is proposed considering a comparative chart between TCT and MCT, proposed by Zylbersztajn (2005, p. 26), and the resulting chart of a theoretical review on complementary aspects between TCT and RBV, presented by Augusto (2011, p. 65). In Figure 2, a complementary perspective is sought between TCT, MCT and RBV. As such, we can see that, while TCT and MCT have their **origin** justified in the importance of institutions, RBV starts from the assumption that strategic resources can emerge from competition in imperfect markets, which generate opportunities for their identification. In that case, we highlight that a first **proposition** regarding the complementarity between all three theoretical contributions is found in the following argument: **institutions, the importance of which is central to TCT and MCT, establish the rules of the game and guarantee property rights over strategic resources in imperfect markets (RBV), assuring competitive benefits from *ex ante* and *ex post* barriers.**

In this reasoning, while TCT and MCT focus, as a **unit of analysis**, on the transaction, there still is no consensus on the unit of analysis of RBV – to Barney (1991) it is the strategy; to Peteraf (1993), the resources. Considering the unit of analysis proposed by Peteraf (1993), another **proposition** regarding the complementarity of the approaches is found in the argument that **strategic resources transactions (RBV) are characterized by attributes, behavioral assumptions (TCT) and measurable dimensions (MCT)**. In other words, in addition to presenting a certain measurable dimension (MCT), each strategic resource of the firm (RBV) can also be characterized in terms of specificity, frequency and uncertainties, and be subject to a certain level of bounded rationality and possibility of opportunistic behavior (transaction attributes and behavioral assumptions through TCT).

The **main process** indicates, therefore, that while TCT states that transaction characteristics determine the choice of governance structures, through MCT, this choice is made taking in consideration the difficulties resulting from the measurement of transacted products. Through RBV, choice will be influenced by the presence or not of strategic resources. With that, another **proposition** of complementarity emerges from the realization that **the characteristics of the transaction, measurement and strategic resources define the proper governance structures**, not only to generate efficiency but for strategic performance.

In that regard, we can propose that in the treatment of governance structures and strategic resources, the **learning process** stands out as a fundamental aspect. Langlois (1992, p. 105, translation ours) affirms that “[...] there cannot be a full theory on the limits of the firm without considering in detail the learning process in companies and markets”. Thus, to that author it is essential to consider that a given theory of firm growth must take into account that, in the long term, the agents involved undergo a learning process, which makes it so they have more information about one another.

Likewise, Saes (2009) further highlights the issue of learning as determinant in the choice of governance structures. The author affirms that TCT explains which governance structures are more efficient to explore the strategic resources of the firm. RBV, for its part, supports the choice of governance structures, especially given that changes in these structures

depend on a feedback process from the leaning and personal experiences of managers on the transaction costs involved.

Aspect	TCT	MCT	RBV	Propositions regarding TCT, MCT and RBV complementarity
Origin	Importance of institutions.	Importance of institutions.	Competition in imperfect markets (PENROSE, 1959).	Institutions establish the rules of the game and guarantee property right over strategic resources in imperfect markets assuring competitive benefits from <i>ex ante</i> and <i>ex post</i> barriers
Unit of analysis	Transaction: resulting from the characteristics of frequency, asset specificity and uncertainty (attributes), as well as behavioral assumptions linked to opportunistic behavior and bounded rationality.	Transaction: broken down into measurable dimensions. A set of economic and legal rights are exchanged and guaranteed by the State or privately.	Strategy (Barney, 1991). Resources (Peteraf, 1993).	Transactions that involve strategic resources are characterized by attributes, behavioral assumptions (TCT) and measurable dimensions.
Main Process	Transaction characteristics influence the choice of governance structure.	Measurement characteristics influence the choice of governance structure.	Resources characteristics influence the choice of governance structure.	The characteristics of the transaction, measurement and strategic resources define governance structures.
	Learning can reduce bounded rationality, uncertainty <i>ex ante</i> and make agreements less incomplete.	Can optimize information and generate better conditions for control, standardization, measurement and formalization of property rights.	Can act on generating resources, sustaining competitive advantages and management ability.	In addition to being considered a strategic resource by RBV, learning can support the choice of governance structures by TCT and provide better conditions to obtain information, standardization, control and protection of property rights through MCT.

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[...] Continued from Figure 2.

Assumption	Higher level of asset specificity implies greater	Difficulty in measuring attributes implies	Control over strategic resources demands a vertical integration.	The presence of specific, hard-to-measure and strategic resources
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	vertical integration or long-term agreements.	greater vertical integration. Property rights are placed with whoever offer guarantees.		defines governance structures that tend towards vertical integration.
Organization follows rationality	Governance structure results from the perspective of alignment with transaction attributes and behavioral assumptions. Minimization of transaction costs. Decision is made <i>ex-ante</i> , considering <i>ex-post</i> risks.	Results of internal organizational structure from the perspective of maximizing value. Decision is made at any time	Strategic resources must be maintained and controlled. Property right guarantees are necessary to explore opportunities. Decision is made <i>ex ante</i> to generate superior <i>ex-post</i> resources and capabilities.	The creation and possession of strategic resources can characterize property right that needs to be protected by governance structures that take into account transaction attributes and behavioral assumptions (TCT) and the measurability of the assets involved (MCT).

Figure 2. Complementary aspects involving RBV, TCT and MCT.

Source: Formulated by the author, from Zylbersztajn, D. Measurement costs and governance: bridging perspectives of transaction cost economics. In: International Society for the New Institutional Economics – ISNIE, Barcelona-Spain, 2005.

When considering the learning process, Langlois (1992) defends the existence of dynamic governance costs, which refer to costs of information or knowledge related to the transfer of capabilities from companies to the market, or vice-versa. According to the author, these costs exist due to the fact that, over time, the competences of organizations undergo changes resulting from learning and technological and organizational innovations.

Williamson (1999), in his work *Strategy research: governance and competence perspectives*, admits that the history of the firm, its resources and learning – aspects discussed in RBV – influence the choice of the proper governance structure, and consequently the boundaries of the firm. In the author’s perception, the Theory of the Firm became too limited by focusing on issues such as property rights and the role of asset specificity, acknowledging that the roles of organizational knowledge and learning are treated superficially.

In that regard, it is noteworthy that the role of learning shows importance in all three theoretical approaches considered. In TCT, learning can support the choice of governance structure, reduce bounded rationality, *ex ante* uncertainties and make agreements less incomplete. In MCT, it can optimize information, generate better conditions for control, standardization, measurement and formalization of property rights. In RBV it can act in generating resources and sustaining *ex post* competitive advantages, as well as in management ability, establishing conditions for *ex ante* and *ex-post* barriers to be feasible.

As such, as in the case of transaction and measurement characteristics, resources and capabilities related to the learning process justify the choice of governance structure. With that, the assumption of the former, related to the main process, is in the argument that: **In addition to being regarded as a strategic resource by RBV, learning supports the choice of governance structures by TCT and provides better conditions to obtain information, standardization, control and protection of property rights through MCT.**

In this context, governance structure via vertical integration, specifically, can be adjusted in the presence of strategic resources, with high specificity and difficulties in measuring their dimensions. In that sense, this form of governance acts as a protection mechanism against opportunistic behaviors and wealth appropriation, indicating contributions to sustain competitive advantages due to generated controls. As a result, the inductive **assumption** formed indicates that **the presence of specific, hard-to-measure and strategic resources influences the choice for governance structures that tend towards vertical integration**. This reasoning can be observed in Figure 3.

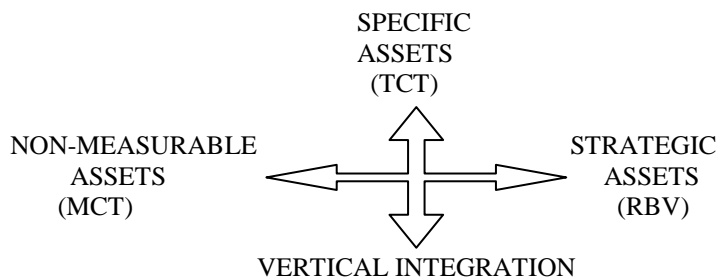


Figure 3. Determinant factors of vertical integration

Source: Formulated by the authors.

Lastly, the **rationale** indicates that the support for competitive advantage requires governance structures capable of protecting strategic resources that take transaction and measurement characteristics into account. As such, the generic **proposition** regarding the closure of the ideas contained in Figure 2 indicates that **possession of strategic resources (RBV) can characterize a property right that needs to be protected by governance structures that take into account transaction attributes and behavioral assumptions (TCT) and the measurability of the assets involved (MCT)**.

This proposition can be reinforced by the statements of Argyres and Zenger (2008). According to those authors, one could think that RBV consists of how to deal with the issue of which resources complement one another to produce a competitive advantage, whereas the Theory of the Firm deals with the issues of which of these complementary resources will stay under common property of the company and which will be owned independently. Following this line of thinking, Combs and Ketchen (1999) affirm that, while RBV emphasizes the identification of strategic resources that require improvements, the Theory of the Firm focuses on the way to manage these resources after they were identified – that is, on the most adequate governance structures to coordinate them and guarantee the maintenance of competitive advantages.

Foss and Foss (2004) argue that one of the failures of RBV is that, according to that approach, differences in competitive advantages are a question of how efficient are the resources that the companies control, and not how well the resources are organized or managed. This means there is little or no attention paid to the task of management or to organizational issues in RBV. Following this argument, Foss (2005) adds that one of the gaps of this approach is in the interaction between value creation and value appropriation. According to the author:

"[...] this interaction is extremely important to understand the economic implications of reward systems and property rights attribution. A large share of modern economic theory of the firm focuses around this, the problem of *Hold-up*,

and is an important manifestation of the sharing of the expected leftover impacting the creation of this leftover (through the effect on specific investments) (FOSS, 2005, p.75, translation ours).

To Foss (2005), this insight is still surprisingly lacking in RBV. In that sense, complementarity is valid, given that identifying the strategic resources of the firm is not enough to create and capture value. The consideration of TCT and MCT is in the sense of contributing to mitigate this criticism, by indicating how structures will tend to be configured, in order to assure property rights and stop value capture in transactions.

By taking a closer look at governance structures, new propositions emerged, shown in Figure 4. If Figure 3 casts a casual look over governance structure via vertical integration, focusing on potential factors responsible for the internalization of production, another view can be had on the decision to **contract production**. As Langlois contends (1992, p.109, translation ours): “no company – even the most integrated ones – has the necessary capabilities for all activities in the chain of production”. Therefore, the result is that companies must negotiate with other companies that can offer them the necessary capabilities, which usually occurs through market contracts or in the free market. In this perspective, the boundaries of the firm are determined by the relative force of the internal and external capabilities to the company.

As such, the logic for integration and disintegration in RBV is that, in general, “vertical disintegration would prove superior to vertical integration whenever complementarities do not exist within the company or are inferior to those available in the market” (LANGLOIS, 1992, p. 119, translation ours). From TCT, we can affirm that external resources are available to the firm through contracts, and the firm can opt to use them if the governance costs to generate them internally were high (COASE, 1937). In MCT, according to Barzel (2003), the company would disintegrate its activities when there is no difficulty measuring the goods involved in the exchange or in defining the transacted property rights.

To Melo (2006), firms interact because there is a limit to the internalization of productive activities in terms of efficiency. As internalization is one of the means for firm growth, the factors that limit this growth can be understood as motivations that lead to the establishment of supply relationships in detriment to self-production. The supply relationships come to be required, according to Melo (2006), for three reasons: 1) an increase in internal production costs; 2) an increase in internal coordination costs, due to deficiencies in the internal organization of production; 3) a need for technical competencies, due to technical specialization of the firms.

As such, the first proposition of Figure 4 is suggested: **firms opt to outsource their production not only due to an increase in production costs, coordination costs or ease of measurement, but also because of the need for competences or assets are not available internally or are inferior to those existing in the market.**

Still dealing with externalization, another valid aspect of complementarity, related to the formation and selection of governance structures, regards the **possibility of contracting due to measurement capacity**, considering the treatment of strategic resources in the scope of TCT and MCT.

Aspect	TCT	MCT	RBV	Complementarity propositions
Outsource productio	Whenever governance	Whenever there is no difficulty	Whenever complementary	Firms opt to contract their production not only due to an

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n	costs to generate activities internally are higher than acquiring them externally.	measuring the goods involved in the exchange or in defining transacted property rights.	resources are not available internally or are inferior to those available in the market.	increase in production costs, coordination costs or ease of measurement, but also because of the need for competences or assets are not available internally or are inferior to those existing in the market.
Possibility of contracting due to measurement	The presence of high-specificity assets prevents market transaction or through contractual relationships, requiring integration.	The possibility of measuring the attributes of the product makes it feasible to use contracts to regulate the transaction.	Strategic resources can cause problems with opportunism and loss of property rights and wealth, requiring a governance structure capable of diminishing the transaction costs generated.	If possible to measure product attributes, the contractual relationship can be used to guarantee property rights over strategic resources and high-specificity assets, thus avoiding the costs of vertical integration.
Control	It related more to the minimization of uncertainty, considering that specialized investments were made	Mechanism to guarantee that the measurable dimensions present in the transaction are maintained.	Strategic resources need to be controlled in order to maintain their condition of non-mobility.	Control, even if directed towards reducing resource mobility, allows responses under conditions of uncertainty and guarantee of property rights over measurable assets to be more effective.
Specific assets	Specific assets cannot be reemployed without a loss in productive value	In order to preserve their condition as specific assets and strategic resources, information creation, control and measurement are essential.	As specific assets, strategic resources are characterized by a difficulty in commercialization and imitation.	a) strategic resources tend to be specific assets, because they necessarily result in value creation for a given purpose; b) specific assets become strategic resources whenever their presence, in addition to loss in value for a second transaction alternative, indicates differentiated competitive conditions against the competition; c) the maintenance of these competitive conditions depends on creating information and control that guarantee the property rights involved.

Figure 4. Other complementary aspects involving RBV, TCT and MCT

Source: Formulated by the author.

Given all three approaches, when considering the outsourcing of productive activities, the presence of a strategic resource creates an opportunity to devise a strategy (RBV), but can also creates problems with opportunism and loss of property right. This is because the specific properties of the transacted resource can establish conditions for opportunistic behaviors to occur (TCT), as already highlighted by Foss (2005). Moreover, the

asymmetry of information in the measurement process (MCT) can impact the distribution of wealth and property rights involved in the transaction (BARZEL, 2005).

The possibilities of losses associated with opportunistic behavior and information asymmetries generate costs to the organization and can undermine competitive strategies directed at creating and sustaining advantages. Thus, in addition to the production costs involved, coordination costs (transaction costs and measurement costs) can emerge. Therefore, governance structures come to be used to guarantee the continuity of the transaction at the lowest cost.

Considering the choice of governance structure by TCT, the presence of high-specificity strategic resources makes impossible the occurrence of the transaction in the market or through contractual relationships. Hierarchical control, or vertical integration, therefore emerges as the adequate alternative for competitive advantage to be sustained and to eliminate the possibility of opportunistic behavior. On the other hand, when considering MCT, the possibility of measurement of product attributes favors the use of contracts to regulate the transaction, as it enables and offers the guarantee of the rights involved and the required specificities. As such, the combined consideration of both theories indicates that the contractual relationship, involving measurement, features the same potential of vertical integration to sustain competitive advantages.

With that, we are given the following **proposition: If possible to measure product attributes, the contractual relationship can be used to guarantee property rights over strategic resources and high-specificity assets, thus avoiding the costs of vertical integration.** In other words, measurement consideration provides an alternative to vertical integration, by considering the form of the contract as sufficient structure to govern a transaction, even if highly specific. On the other hand, whenever the use of contracts is not capable of guaranteeing property rights and avoiding the possibility of value dissipation, reducing the sustainability of the competitive advantage, vertical integration can be chosen.

Figure 5 is presented, hypothetically, for a better understanding of the possible variations in governance structure that can emerge in organizational relationships, given the characteristics of transacted resources (specific, measurable and strategic). Note that in total absence of high-specificity resources, measurable and strategic, the market emerges as the best option. At the other extreme, the presence of these resources indicates integration or contracting as an adequate option to enable a reduction in transaction costs (TCT and MCT) and the sustainability of competitive advantage (RBV).

It should be observed that measurement makes contracting feasible in the presence of strategic high-specificity resources due to the possibility of measuring the goods involved in the transaction. If the possibility of measurement were not considered in high-specificity situations, the available options of governance structures would be limited to vertical integration. According to this same figure, it is noted that the sustainability of competitive advantage would take place through the alignment between specific, measurable and strategic resources that require governance structures that tend towards vertical integration.

Resource Type	Presence							
	-	-	-	-	+	+	+	+
Specific	-	-	-	-	+	+	+	+
Measurable	-	-	+	+	+	+	-	-
Strategic	-	+	+	-	+	-	-	+
Governance structure	M	VI	VI/C	M	VI/C	VI/C	VI	VI

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Competitiveness	Neutral	CCV	CCV	Neutral	SCV	CCV	CCV	CCV
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Figure 5. Governance structures possibilities given resource characteristics

Nota - M: market/ C: contract / VI: vertical integration. Neutral: random competitive advantage/ CCV: creation of competitive advantage/ SCV: favorable condition for the sustainability of competitive advantage
 Source: Formulated by the authors.

Still in regard to the treatment of governance structures, the role of **control** gains fundamental importance in all three approaches. In RBV, it is necessary that strategic resources be controlled in order to preserve their non-mobility condition. In TCT, control relates more to minimizing the condition of uncertainty, considering that specialized investments were carried out. In that regard, Zylbersztajn (2009, p. 9) observes that “[...] with regard to uncertainty [...], unexpected external shocks [...] can have real unpredictable consequences. Therefore, uncertainty motivates the need for more intense control”. In MCT, control emerges as a mechanism to guarantee that the measurable dimensions present in the transaction are maintained.

Thus, the new complementarity **proposition** observed herein indicates that **control, even when directed towards reducing resource mobility (RBV), allows the responses under conditions of uncertainty (TCT) and the guarantee of property rights over measurable assets (MCT) to be more effective.**

Underlying these assumptions, others emerge as well, notably in the consideration of **specific assets** and their relationships with MCT and RBV. Considering that specific assets, in TCT, consist of those assets that cannot be reemployed without loss in its productive value (WILLIAMSON, 1985), new aspects can be added by adding the RBV approach.

From the proposal by Combs and Ketchen (1999) that, as with specific assets, strategic resources are characterized by the difficulty in commercialization and imitation, the identification of which resource is strategic can be inferred by identifying specific assets. Given its condition of value creation and differentiated competitive condition, strategic resources come to require adequate coordination mechanisms. Moreover, when considering assets and resources under the prism of MCT, the creation of information, control and measurement that guarantee the property rights of those involved prove essential.

In this perspective, the following **assumption** is proposed: **a) strategic resources tend to be specific assets, because they necessarily imply creating value for a given purpose; b) specific assets represent strategic resources whenever their presence, in addition to value loss against a second transaction alternative, indicates differentiated competitive conditions against the competition; c) the maintenance of the competitive conditions of specific assets and strategic resources depends on generating information and control that can guarantee the property rights involved.**

From the suggested assumptions, we observe the possibility of treating the formation and boundaries of governance structures by collectively considering all three proposed theoretical frameworks. In that sense, strategic resources transactions (RBV) are characterized by attributes, behavioral assumptions (TCT) and measurable dimensions (MCT) that must be considered. Thus, coordination under the focus of TCT and MCT emerges as a mechanism not only to reduce transaction costs, but also to obtain and sustain superior competitive conditions through the governance of strategic resources.

4. Conclusions

The attempt to integrate the different strategy approaches is a recent movement, but which has seen several initiatives. In this study, this movement is presented in the search for a more thorough understanding of the boundaries of the firm, in order to minimize individual limitations in terms of strategic analysis by considering NIE, notably TCT and MCT, and RBV. Note that the criticisms against these approaches when considered individually motivate these movements and indicate the need to add new analytical elements. These criticisms can be seen in Theory of the Firm literature, especially when dealing with TCT and MCT, as well as in the RBV approach.

On one hand, we note that part of the criticisms leveled at the Theory of the Firm refer to the unilateral approach present in the choice of boundaries of the firm. In other words, the definition of governance structures involves more than the presence of transaction costs, specific assets, opportunistic behaviors and measurement costs. On the other hand, internal resources and capabilities of organizations, which create sustainable competitive advantages, can influence how the boundaries of the firm are configured and must be coordinated. In that sense, the RBV approach can prove valid in responding to some limitations highlighted in TCT and MCT, and vice-versa.

The idea is to open pathways to explore the relationships between these theoretical approaches, as the progresses obtained in this field still leave large gaps in the understanding how transaction costs, measurement and strategic resources combine to determine the boundaries of the firm.

Note:

¹In this work, we use the term "strategic resources" as synonymous with distinctive resources and capabilities, generating competitive advantages, as referenced in Peteraf (1993) and Wernerfelt (1984).

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