



## Transaction Cost Economics and Recourse Based View: complementary aspects in the treatment of governance structures

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### **Abstract**

The transaction cost economics (TCE), in the field of New Institutional Economics, have been shown as one of the most elaborate theoretical and explanatory constructs of arrangements existing in organizational reality. However, recent studies have sought on the Resource Based View (RBV) approach the theoretical foundations about setting these arrangements, in addition to highlighting a required complementarity between TCE and the RBV in understanding how they are formed. In this sense, the objective in this article was to understand how the complementarity theory TCE and RBV explain the configuration of the governance structures in the context of New Institutional Economics. The discussion presented in the form of essay, demonstrated that resources and differentiated capabilities could provide the basis for the proper choice of governance structures. These structures, in turn, are chosen in order to protect and achieve sustainable competitive advantages from these resources. Thus, that the complementary view of TCE with RBV is able to encompass more fully the aspects related to the choice of firm boundaries, minimizing the individual limitations of these approaches in terms of strategic analysis.

**Key words:** Transaction Costs; Resources and Capabilities; Complementarity; Governance Structures.

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### **Introduction**

How the Transaction Costs Economics (TCE) and the Resource-Based View (RBV) explain the governance structures? What are the limitations? How these approaches complement each other in explaining the boundaries of the firm? From

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these questions, the objective in this article is to point out some relationships between TCE and RBV in order to describe how the integration of both exceeds their individual limitations on explanation of the determinants of the borders of the organization.

To do so, as a background, the conceptual framework provided by the New Institutional Economics (NIE). NIE introduces transactions as basic analysis unit, which dictates the kind of institutionalized relationships that form between the parties. In the design of Azevedo (2000), the NIE comes to the role of institutions in two different analytical levels. The first refers to the institutional environment contemplating macroinstitutions, those that establish the bases for the interactions between human beings. The second level deals with the microinstitutions, i.e., those that regulate a specific transaction, using the transaction costs economics (TCE), concerned with the analysis of governance structures.

In this paper, the focus is on the microanalytic level, more specifically about governance structures analyzed by the economics of transaction costs. The TCE offers the transaction as the unit of analysis and has as its central concern to create value from the coordination of governance structures that, according to Williamson (1985), may occur through vertical integration, market or contracts. The goal is to reduce ultimately transaction costs through efficiency, aiming to achieve sustainable competitive advantages.

According to Williamson (1985), the TCE considers that the choice of the appropriate governance structure will be based on certain attributes, called transaction attributes, namely: the specificity of assets, the frequency and the uncertainty. TCE has the basic assumption that the alignment between the governance structures, identified above, and the transaction attributes define the firm's competitiveness. In addition, it is considered that behavioral assumptions related to limited rationality and opportunistic attitudes (WILLIAMSON, 1985) will also influence the choice of certain governance structures at the expense of other.

What is observed is that recent studies have sought on the Resource Based View approach (RBV) the theoretical foundations about setting up governance structures, besides pointing to a necessary complementarity between TCE and RBV in the understanding of how governance structures are formed. According to Saes (2009), RBV has its origin in economic theory, especially from the studies of Penrose (1959), who argued that companies develop their competitive advantages through the market imperfections that allow the development of unique features and capabilities. Therefore, the RBV adopts the *resources*, as the unit of analysis, and the firm is now seen as a collection of knowledge resources built throughout its history, which are

surrounded by routines and learning processes. To protect the appropriability of these resources, according to the author, the RBV tends to the governance structure via hierarchy or vertical integration.

Williamson (2002), in the book *Strategy research: governance and competence perspective*, points out that TCE and RBV work with overlapping, and often complementary, phenomena, on the assumption that the history of the firm and its resources, approached by RBV, influence the choice of the appropriate governance structure and, therefore, within the firm, issues treated by TCE. In the author's perception, the theory of the firm has become too limited to focus on issues such as property rights and the role of asset specificity, recognizing that the roles of organizational knowledge and of learning are limited in the transaction costs approach, despite his claim that this does not mean that TCE does not relate or may relate to these issues.

With that, some ideas brought by the TCE and RBV can explain how and why organizations choose certain governance structures to carry out their transactions. In the context of the New Institutional Economics, governance structures appear as an element that can facilitate or hinder the coordination of the firm, in terms of alignment to the institutional environment and, consequently, affect its responsiveness. Thus, considering the theoretical questions, covering the transaction costs economics and the Resource Based View on the explanation on the configuration of governance structures, the following research question was raised: **How the complementarity of the theories RBV and TCE explains the configuration of governance structures in the context of the New Institutional Economics?**

The search for the answer to that question, presented in the form of an essay, offers a literature review on the Transaction Costs Economics (TCE) and the Resource Based View (RBV), as well as complementary aspects that both approaches present. Given this, the bibliographical research becomes especially valid to treat the RBV approach in explaining the boundaries of the firm. That's because, according to Teece, Pisano and Shuen (1997, p. 514), the set of ideas that permeate this approach does not provide a theory of business strategy or a set of useful taxonomies ", because there are many intuitive questions that need to be identified. It is intended, in this sense, the understanding of this approach while theoretical framework, as well as its relationship with TCE.

It is important to highlight that this discussion is relevant and timely presented. Argyres and Zenger (2008) observed that the growth strategy, in the literature on the determinants of the boundaries of the firm, contains a set of misleading discussion. The authors argue that a false dichotomy between the TCE and the RBV has

emerged because the TCE, properly understood, is extremely concerned with the question of what governance choices facilitate the development of certain types of capabilities. Therefore, the scholars should no longer assume the existence of a significant distinction between the TCE and the RBV in explaining the boundaries of the firm. Instead, as advocated by Argyres and Zenger (2008, p. 29), "the scholars should treat considerations on capacity as inextricably entwined with the logic of the transaction costs, and should endeavor to analyze aspects of this complex interaction", what is the aim of the present investigation.

In this sense, this paper presents, in addition to this introduction, the following structure: a section highlighting the transaction costs economics, in terms of origin, unit of analysis, characteristics of approach and indication of possible limitations in explaining the existence of organizations only by transaction costs; a second section, in which the RBV is described and the reasons therefore based on features and capabilities, as well as its limitations, notably in terms of tautological character and predictive power; and a third section identifying complementary sources of these theories and, finally, the concluding remarks and the references used.

## **TRANSACTION COSTS ECONOMICS (TCE)**

The analytical level concerned with governance structures is the branch of NEI, named economics of transaction costs (TCE). The following are the origin, evolution and the basic principles of this approach, as well as the attributes and behavioral assumptions characteristic of transactions, covering also issues pertaining to governance structures that can be used to coordinate these transactions, as the main criticism in the literature on the subject concerning this approach.

### **TCE: origin, evolution and basic principles**

According to Langlois and Foss (1997) and Saes (2009), the TCE came up with Ronald Coase, who introduced, in his celebrated 1937 paper "*The nature of the firm*", a new perspective to the understanding of business strategies, by showing that there are costs as well as production costs, associated with the operation of the markets: transaction costs. According to Saes (2009, p. 46), in this paper the author criticizes the vision of the firm as a production function, arguing that the firm is an organic relationship between agents, which becomes effective through contracts, to be explicit, such as work, or implicit, as formal partnerships ". With that, according to the author, Coase shows that transaction costs are one of the most important factors that

shape economic relations in contemporary society.

In this sense, Rosina et al. (2007, p. 5) state that from the studies performed by Coase (1937), organizations are seen as a relationship between agents held through contracts, in other words, "consider not only the costs of production, as in neoclassical economics, but also other types of costs, such as markets, more specifically, those relating to transactions". According to Zylbersztajn (2009, p. 42):

Basically, Coase was concerned with real-world organizations, as made clear in his speech upon receiving the Nobel Prize in economics in 1991. In doing so, he argued the explanatory reasons for the existence of the firm based on the comparative costs of internal organization and production via market and laid the foundations for the study of alternative forms of organization of contract firms. He acknowledged that the markets did not work at zero cost; either the internal organization of the firm was devoid of costs.

From the vision of the firm as a nexus of contracts, as explained by Zylbersztajn (2009, p. 43), a possibility opened up for the "study of organizations like 'institutional arrangements' governing the transactions, either through formal or informal agreements contracts, the first supported by the law, and other social mechanisms". Thus, a family of theories of law firm contractual basis appeared, among which stand out the Transaction Costs Economics (Williamson, 1985, 1996), the Theory of Measurement (Barzel, 2002), both anchored in Coase, the theory of Incomplete Contracts (Hart, 1995), the Resource Based Theory (Langlois, 1998), among others. The central point is that institutions are relevant; they are subjected to analysis, and both affect, and are affected by, firms and organizations (ZYLBERSZTAJN, 2009).

So, in essence, ECT is considered an environment with positive transaction costs, i.e., there are costs to protect and to capture rights of property, which can be secured by both formal agreements as for other forms of informal coordination, supported by reputation or social ties. In this way, the TCE assumes that the Organization should adopt the structure of governance that reduce their transaction costs.

To Zylbersztajn (1995, p. 15), the objective of the TCE is "to study the cost of the transaction as the inductor of the alternative modes of organization of production within an institutional analytical framework. Thus, the fundamental analysis unit becomes the transaction, where property rights are traded". Therefore, transaction costs, according to Besanko et al. (2006, p. 142), "include time and expense of negotiating, bookkeeping and enforce contracts [...], including the adverse consequences of opportunistic behavior, as well as the costs of trying to avoid it".

In the perception of Rosina et al. (2007, p. 6), the TEC is a theory "that allows analyzing the organizations and their relationship with the market and institutions from the characteristics of behavioral assumptions and transaction of the officers involved ". The authors state that, with the knowledge of significant dimensions of

the transactions and the analysis of the present attributes, it is possible to predict the institutional arrangements that are adopted. According to Williamson (1985), the attributes that characterize a transaction are three: the frequency, the uncertainty and the specificity of assets, the latter being, in the view of the author, the main determinant of the governance structure to be adopted.

According to Williamson (1985), the attribute frequency refers to the number of times that the economic agents are to perform a transaction, considering that, the higher the frequency, the lower are the costs related to the collection of information and the preparation of contracts, and the greater the likelihood of the partners develop a reputation, limiting opportunistic behaviors. On the other hand, the uncertainty are the changes that arise from the complexity of the economic environment, making it impossible to fully accurate assessments. It is considered that the greater the uncertainty, the more complex it becomes the development of long-term partnerships. The specific assets<sup>ii</sup>, on their turn, are tangible or unrecoverable intangible in the sense that they cannot be returned to the market if the original business relationship is discontinued, i.e., cannot be applicable in another transaction without loss of value.

In addition to the transaction attributes, Williamson (1985) states that the transaction costs economics assume two behavioral assumptions that distinguish it from the traditional approach: opportunism and bounded rationality. To Zylbersztajn (1995, p. 17), "opportunism assumes no cooperative play, where the information that an agent may have about reality is not accessible to another agent, can allow the first enjoy some benefit of monopolistic type". From limited rationality "is derived the notion of contractual incompleteness, i.e. due to the cognitive limitations that characterize the agents, it is not possible to establish contracts to take care of all future contingencies" (AZEVEDO, 2000, p. 36).

Considering the above, it is noted that from the transaction attributes, and from behavioral assumptions, having been identified the institutional environment and defined the different contractual relations, one can identify the appropriate governance structure for the various transactions. Governance structures discussed in the literature on the Transaction Costs Economics are presented below.

## **Governance structures**

In order to reduce transaction costs, the agents make use of appropriate mechanisms to regulate a particular transaction, called governance structures. According to Jacobides and Winter (2005), over the past twenty years, much progress has been

made in trying to understand what drives the governance structures observed in practice. A key figure in this development was Oliver Williamson (1975, 1985, 1999), who prepared and delivered the concept of transaction costs, initially formulated by Coase (1937).

In the perception of Williamson (1985), the governance structures are coordination mechanisms that determine the way the transactions are configured, which can occur in three ways: via market, hierarchy (vertical integration) or by contracts (hybrid forms). According to Williamson (1985), the governance structure via market occurs when companies choose to buy what they need on the open market, instead of produce internally or do contracts.

Vertical integration or the hierarchy, in turn, happens when the firm decides to produce internally the necessary products or perform activities internally, instead of buying on the open market, not including, in this case, partnerships with potential vendors or third parties (WILLIAMSON, 1985). According to Poppo and Zenger (1998, p. 853), "in the presence of specific assets, vertical integration can offer a preferred solution of governance", being motivated mainly by the potential of hold-ups and opportunistic behavior. The contracts or hybrid forms, according to Ménard (2004), are the ordering transaction structures recurrently identified as distinct from structures via market and hierarchy, possessing many features that may approach these two types of structures or tear them apart.

According to Besanko (2006, p. 128), "no matter what the firm's position in the vertical chain, it needs to define its borders", and "to take decisions on produce or buy, it should compare the benefits and costs of using the market as opposed to perform the activity at home". The three major costs associated with the use of the market include "the cost of poor coordination between stages of vertical chain, the reluctance of business partners to develop and share valuable information, and transaction costs" (BESANKO, 2006, p. 136). Each of these problems, according to the author, can be attributed to costs associated with the preparation and enforcement of contracts. The main differences between market and hierarchy, according to Williamson (1985, p. 90), are that:

(1) Markets promote a high incentive power and restrict bureaucratic distortions more effectively than the internal organization; (2) Markets can sometimes add advantageous demands and, thus, achieve economies of scale and scope; and (3) Internal organization has access to different governance instruments.

For Williamson (1985, p. 91), the market is the preferred mode of supply when the asset specificity is not high, due to "incentive and bureaucratic deficiencies of internal organization in the aspects of production cost control". However, the inter-



nal organization is favorable where asset specificity is high, due to the high degree of bilateral dependence that exists in these circumstances.

## Criticism to TCE

Although TCE have been an important anchor for the analysis of a wide range of strategic and organizational issues, Ghoshal and Moran (1996) They claim that the extracted requirements of this theory are likely to be not only wrong, but dangerous, too, because of the assumptions and logic it which they are based.

According to Poppo and Zenger (1997), in recent years, the TCE central argument that the vertical integration occurs as a function of asset specificity has faced widespread criticism, which states that the link between asset specificity and the choice of the bounds of the firm has little to do with the opportunistic behavior and market failures. In this sense, Ghoshal and Moran (1996, p. 42) pointed out that the choice of firm boundaries do not necessarily need to be in overcoming human pathologies by means of the hierarchy, but in "leveraging the human ability to take initiative, to cooperate and to learn". To the authors, the hierarchy can occur also to explore the internal purposes and the diversity of the organization. Baumol (1986) also criticizes an assumption of TCE to the claim that is certainly an exaggeration to say that these institutions have as main purpose saving transaction costs. To the author, this exaggeration can lead to a unilateral approach, in which it is suggested that the firm is almost exclusively as a governance structure, ignoring its production function.

According to Ghoshal and Moran (1996, p. 18), TCE has also been criticised "for lack of generality because of ethnocentric bias (Dore, 1983), for ignoring the contextual basis of human actions and, therefore, present a sub-socialized vision of human motivation and a super-socialized vision of institutional control (Granovetter, 1985). Langlois (1992, p. 105) also criticizes the TCE in the aspect of the time dimension. The author completes, affirming that "the existing vertical integration TCE provides an instant overview of possible institutional responses to a momentary situation [...].It is a short-term theory that does not have correlative long term". On the other hand, Baumol (1986) criticizes the absence of any operational mechanism for deduction and formal analysis, pointing out the large gap in the area of methodological approach.

For Poppo and Zenger (1997), the criticism made to TCE, together, represent a significant challenge to the prominence of the approach as an explanation for the decisions of border. According to the authors, to most of the existing empirical work,



TEC analyzes the effects of trading conditions in the choice of borders, instead of their effects on performance and, thus, does not solve all the questions raised by these criticisms. This becomes particularly difficult, because although forms of governance are easily observed, the performance of these forms are not (POPPO; ZENGER, 1997). Despite the criticisms listed, Baumol (1986) points out that it must be reiterated that the appearance of the TCE, developed by Williamson, is a major event in the annals of industrial organization. It is enlightening, exploitable, pioneer and, indeed, directive. To Baumol (1986), there is not much more that an author can reasonably expect to accomplish.

## **THE RESOURCE-BASED VIEW (RBV)**

Another strand in the literature that has had a considerable impact in the field of the firm theory is the RBV. According to this approach, the resources, understood both as physical resources, such as differentiated human capabilities, are those that enable the firm the conquest of sustainable competitive advantages. That is, the benefits arise because companies acquire and develop a set of assets that are superior to those of their competitors. Below are presented the origin, evolution and the basic principles of this approach, as well as the characteristics inherent to the strategic resources of organizations, covering the main criticisms directed to this approach in the literature on the subject.

### **RBV: origin, evolution and basic principles**

According to Mintzberg et al (2000), the Resource-Based View has its origin in economic theory, especially in the studies of Penrose (1959), who argued that companies develop their competitive advantages by means of market imperfections, being that the singularities arising from these imperfections provide the basis for the development of new products and, at the same time, skills or unique resources.

In this sense, Foss and Foss (2004) point out that has frequently been argued that the work of Penrose (1959) is the most important precursor of RBV. This is because, according to the authors, Penrose has addressed in his studies the question of whether the firms are heterogeneous in terms of services and it can be derived from the differences in resources that they possess. Starting from this line of reasoning, Alves, Bomtempo and Coutinho (2005) state that although Penrose's vision is more restricted to tangible goods, his greatest contribution was to point out that the source of individuality of a firm lies not in its feature set, but rather in how these are used,

i.e. the services generated. In other words, despite the importance of resources, is how they will be used to define the competitive advantage of a firm on the other.

Despite the finding of Penrose, according to Guasselli and Abreu (2009) the intangible assets only come to be considered effectively by the RBV with the paper of Wernefelt (1984), in which it is established a parallel between the traditional products based vision, defended by the competitive model of Porter (1985), and the resource based view, showing that, in this case, new strategic perspectives could be viewed. According to Wernefelt, their ideas have been grounded until 1990, when Prahalad and Hamel popularized their vision about dynamic capabilities (MINTZBERG, 2000). In fact, to Mintzberg (2000, p. 203), "these two views are related, with their focus on support and development of the internal capabilities of the companies – the vision 'inside out' as opposed to positioning and to the vision of Porter, formerly popular, 'from the outside in'".

From the perspective of Guasseli and Abreu (2009), Barney (1991) agrees with the arguments of Wernefelt and extends the original Penrose perspective, stating that the firm's feature set is not only a list of factors, but also the process of interaction between these resources, as well as their effects on the Organization. After Barney (1991), Peteraf publishes a paper in *Strategic Management Journal*, in 1993, *The cornerstones of competitive advantage*, in which the author examines the conditions of the resources that ensure the sustainable competitive advantages. From these theoretical bases provided by leading exponents of RBV, several other authors start to publish papers related to the topic.

In the view of Guasselli and Abreu (2009), from the perspective of Penrose (1959), Wernefelt (1984), Barney (1991) and Peteraf (1993), the competitive advantage is linked to the fact that the companies have a set of distinctive features that satisfy the demands posed by markets where they work, opening new perspectives related to obtaining sustainable competitive advantages.

Following this line of reasoning, Burlamaqui and Proença (2003) argue that the RBV assumes the differences in resources as the heart of the strategic problem: natural resources are, therefore, "the essence of sustainable competitive advantage". In this context, the rent, the target of any strategy, flow of specific assets of the firm, which cannot be immediately replicated: they are the *ricardian rents*. These rents are actually derived from the scarcity on demand, due to factors appreciated, but inherently rare and difficult to obtain. Thus, the authors argue that the RBV is focused on rents resulting from the own firm-specific resources, instead of focusing on economic profits from the positioning of the product market, as defended in Porter's approach (1980, 1985, 1996).

From the perspective of Foss and Foss (2004), looking back, for more than twenty years of evolution of the RBV, it is easy to jump to the conclusion that this approach, in many ways, favored organizational studies for treating the strategic management in a completely different way of Michael Porter (1980). This is because it expanded the vocabulary and the tools used so far, through the introduction of rents for efficiency, difficult and expensive resources to imitate, among other ideas, opening new paths and prospects for research in the area.

## Strategic resources

As noted earlier, for the RBV, the essence of the firm is its ability to find or create truly distinctive resources. However, it is valid to point out that not all features have the potential to sustain competitive advantage. Thus, according to Mintzberg (2000), how can the firm know which resources are strategic, that is, which resources offer the greatest benefits sustained in the face of competition?

According to Barney (1991) there are two types of resources from the strategic point of view: those who do not create SCAs (sustainable competitive advantages) for being abundant, accessible to all, replaceable and relatively easy to be traded on the market, and those which enable the firm to acquire SCAs just because they are valuable, rare, imperfectly reproducible and irreplaceable, as explained below, from the arguments of Mintzberg et al (2000) and Saes (2009): 1. Valuable, in order to allow the companies to save or execute the strategies that improve their efficiency or effectiveness, enabling the exploration of opportunities and/or threat neutralization exposed in the external environment. 2. Rare, i.e., unusual and highly demanded in relation to resources owned by current or potential competitors in an industry. 3. Imperfectly reproducible, that can be derived from the inherent complexity of the resource, of trade secrets, of specialized production equipment, as well as the experience of the workers. 4. Irreplaceable, i.e., a resource is irreplaceable when there are no resources able to implement the same strategies, albeit similar, or when its results succumb to the characteristics that lead the resource to be generator of strategic value.

According to Saes (2009), firms that control rare and valuable resources have competitive advantages. However, to obtain these SCAs, they must to be non-reproducible (or costly reproducible) and irreplaceable. For the author, Peteraf (1993) presents a different approach from that of Barney (1991), as the unit of analysis the individual resources within the firm, and not the strategies, as well as for Barney (1991). Peteraf (1993), specifically in the publication *The cornerstones of*

*competitive advantage*, examines the conditions of the resources that ensure sustainable competitive advantages. Foss and Foss (2004), in an analysis of this work, they argue that, in the view of Peteraf (1993), the capabilities yield a sustainable competitive advantage to the firm when meet four conditions.

According to Foss and Foss (2004), the first condition concerns the question of what resources should be higher, which implies in the heterogeneity of firms within an industry. For Peteraf (1993), the heterogeneity in an industry involves situations in which the presence of strategic resources is limited in quantity and scarce in relation to demand. Thus, it is possible to generate differential profit, ever time that companies with scarce resources access lower average costs than the other; however, they cannot quickly expand their production, even though the price paid by the market is too high.

The second condition, according to Foss and Foss (2004) refers to the ex-post barriers to competition, proposed by Lipman, Rumelt and Wernerfelt, where generic mechanisms are sought that can sustain the competitive advantage the firm has achieved from its heterogeneous resources. In this case, emerge as support factors, second Peteraf (1993), the difficulty of imitation and replication that the resources must have, which may occur as a result of isolation mechanisms such as the codification of knowledge or the non-existence of *path dependencies* (as in the case of a successful brand) inherent to the firm.

The ex-ante barriers to the competition are the third condition to sustain competitive advantage. According to Foss and Foss (2004), it was Barney (1986) who established this condition with his argument of market factors, i.e., the argument that information asymmetries are necessary. This is because these differences limit the explicit competition for resources, so that some companies can acquire them and establish an advantageous cost position.

The last condition is immobility, where it is considered, according to Foss and Foss (2004), that resources are immobile when, somehow, they have expertise or specificity that make them tailored exclusively to the needs of the firm. This condition, according to Peteraf (1993), is due to some factors, such as the fact that the resources have features of greater benefit if used within the firm and in conjunction with other resources than its competitors do, Apart from the issue of the difficulty and the high transaction costs in the transfer of these resources.

It is worth noting that several scholars have focused their work on description of strategic resources and capabilities inherent in the internal environment of organizations. Although many advances have been achieved since the classical thinkers like Wernerfelt (1984), Barney (1991) and Peteraf (1993), with their focus in the intra-

organizational relationships, what is stated by many authors is that this field still requires further research.

## Criticism to RBV

As pointed out previously, RBV is a valid theoretical approach in the study of competitive advantages in the field of organizational studies. However, she has been the subject of several criticisms by several theorists associated with the area. Many of these criticisms are because RBV, as well as other approaches, presents fails and, therefore, its contributions denote a limited character.

According to Saes (2009), authors as Argyres (1996), Williamson (1999), Barney and Arikan (2001), Priem and Butles (2001) and Nickerson (2003), in their texts, suggest consideration about the predictive power and the tautological and non-formal nature of RBV. As an argument, the authors indicate that the proposition of the RBV, where rare and costly resources, hardly replicated, are important to generate rents, says very little about what and how such resources should be gathered in order to create and sustain competitive advantage. Thus, according to Saes (2009), RBV does not generate empirical predictions, and explanations about the sustainable competitive advantages are always *ex-post*, i.e., this approach does not have the power to predict which conduct is ideal to be adopted by firms to achieve sustainable competitive advantage.

Another problem that has been pointed to RBV regard to its unit of analysis. This is because one can identify differences in the literature on the subject, by their main precursors. Some authors adopt strategy as the unit of analysis (Barney, 1991), while others adopt the individual resource (Peteraf, 1993). One of the consequences of these differences is that, as noted by Teece, Pisano and Shuen (1997) and Kimura (2007), many ideas of RBV do not provide a theory of business strategy or a set of useful taxonomies. For these authors, the approach still has many intuitive questions that need to be identified.

In addition, according to Teece, Pisano and Shuen (1997), RBV have not been explaining adequately <sup>iii</sup> how and why certain firms have competitive advantages in situations of swift and unpredictable changes. Saes (2009) believes that this is because RBV neglects the external environment, what prevent it to foresee if the competitive value of a resource may be eliminated or intensified with external changes, e.g., technology, behavior of competitors and consumers.

Another critical issue concerns the heterogeneity of firms, discussed by RBV. This is because, however much the approach emphasize this assumption, the causes

of heterogeneity have been very little researched. According to Foss and Foss (2004), this is a criticism, since the analysis of RBV should start from this condition, even that part of the effort of the scholars of this approach has been to argue that RBV, in contrast with the economics of industrial organization, finds the heterogeneity of firms at the center of its approach. Poppo and Zenger (1998), still claim that RBV, like TEC itself, have focused mainly on the failure of markets and in the virtues of the hierarchy, which seems a bit out of place given the trends apparent in recent decades toward disintegration, downsizing and refocusing.

Despite all the criticisms listed above, Kimura (2007) points out that the RBV is still valuable, even showing a series of analytic and tautological propositions. For the author, several fundamental concepts and arguments, when it comes to competitive advantage, are fruits of verbal propositions, without a formal logical basis, as is the case of RBV itself. Therefore, it is valid to note that, although it does not point to a clear predictive perspective, RBV defines ways to be observed, contributing to the evolution of knowledge, since it offers a new perspective by launching a "look" on the features and capabilities of the firm as a source of competitive advantage.

## **SPECIFICITIES OF TCE AND RBV**

In this way, it is understood that both approaches (TCE and RBV) can be seen as independent, since they explain the origin of competitive advantages from different points of view.

In this regard, Combs and Ketchen (1999) point out that TCE and RBV can be portrayed as autonomous, since while the RBV argues that the competitive advantages are from ricardian rents, made possible by the identification and exploration of differentiated features, the TCE argues that these advantages are related to the reduction of transaction costs by exploring these resources. Thus, while the RBV's main contribution to the strategy lies in sustaining competitive advantage through distinct features, the TCE, according to Saes (2009), presents as a contribution incorporating the coordination in the analysis of the performance of firms. That is, the more suitable for the coordination between suppliers and customers, better is the adaptation to environmental changes, and lesser the conflicts customer/vendor relations and, therefore, the greater the value capture.

In accordance to the arguments of Combs and Ketchen (1999), Argyres and Zenger (2008, p. 3) highlight that, in most of the work of scholars on the subject, the positions of the capabilities are explained as independent and often competing positions of transaction costs, which seem to propose completely different explanations

for the choice of the boundaries of the firm. Langlois (1992) states that TCE argues that activities are internalized when the costs of government activities by market exceed the costs of rule them internally, i.e. vertical integration occurs when the hierarchies have special advantages on the markets to overcome the risks involved in trading. In contrast, the RBV explains the choice by internalize (or persist in this choice) as a reflection of the higher capacity to carry out activities within the firm in relation to the capabilities of external suppliers.

In the perception of Argyres and Zenger (2008), although this focus on comparison of exchange risks, rather than on the comparison of abilities, suggest a great divergence in logic, a more careful observation reveals the difficulty to distinguish them conceptually. This is because, according to the authors, the TCE, even in the form in which it was originally formulated, is aptly seen as explaining the efficient management of the development of a "single" or "specific" capacity of the firm.

In fact, in recent years, a convergence between these two theories is initiated by creating a more satisfactory explanation to the boundaries of the firm. For Jacobides and Winter (2005), transaction cost economists now accept that we cannot fully understand the choices of borders without evaluating the resource bases of companies. Thus, RBV has been extended beyond the explanations of the performance of firms for explanations about its setting and its limits. According to Argyres and Zenger (2008, p. 6), the argument proposed to explain these limits is simple: "companies govern internally comparative capabilities and outsource the access to capabilities where the firm is comparatively incompetent". From this logic, one can see that the skills that the firm has also determine its limits, since the making or buying decisions are made taking into account its existence.

According to this argument, Langlois (1992, p. 99) States that "together with the costs of governance, the firm's and the market's capabilities determine the boundaries of the firm in the short term". The author argues that this is due to the existence of dynamic governance costs, which refer to costs related to knowledge and information and the transfer of capacities of enterprises to the market, or vice versa. These costs can be expensive to create within the firm capabilities available on the market and, therefore, denote that the capacities of the organization relate to the choice of its limits. In the view of Poppo and Zenger (1998, p. 875):

a complete theory of the firm requires a deeper understanding of the organization's costs - costs that restrict the size of the companies and restrict their ability to internalize a set of features and activities. Until the theories of the determinants of organizational costs are carefully crafted and empirically explored, our theory of the firm will continue to be significantly underdeveloped.



Therefore, considerations of RBV go hand-in-hand with the considerations of the TCE and are rooted in them. Argyres and Zenger (2008) state that the concepts related to the capabilities and transaction costs are so intertwined that they should be integrated as part of a single theory of the boundaries of the firm. The authors suggest that the development of such a theory requires cancellation of a logically untenable debate around the distinct roles of RBV and TCE in the explanation of the boundaries of the firm. Seen from this perspective, an explanation for the choice of the boundaries of the firm based entirely or largely on considerations of TCE cannot provide a sufficient explanation to a making or buying decision. Some complementary aspects discussed in the literature on the subject are presented below.

### **Complementary aspects**

In recent years, an intense theoretical and empirical debate has arisen around the topic of the boundaries of firms. While the transaction costs economics has dominated this debate, more recently scholars have advanced in competing arguments, based on the logic of the RBV. According to Carter and Hudgson (2006, p. 473 apud Argyres and Zenger, 2008, p. 4), a recent review of the empirical literature on transaction costs economics concludes that most of the empirical studies on the limits of the firm test the chances of the TCE can be reinterpreted as "... consistent with a resource or competence based perspective".

On the perception of Argyres and Zenger (2008), the explanation for the choice of the boundary of the firm that derives from the RBV offers a consistent message with the logic of the original TCE. This is because, according to the authors, while TCE sets essentially the virtues of the hierarchy as overcoming market failures, the scholars of RBV articulate more fully about the virtues of the hierarchy in generating capacity. That is, the RBV asserts that the reason an activity is performed within the firm is not only the fault of the market or transaction costs that may occur, but the success of the firm. Therefore, although the scholars of RBV introduce a new logic to explain the virtues of the firm's governance, the arguments are very consistent with the broad conceptual lines of TCE. Table 1 presents some complementarities proposals for consideration of the two theories as a guideline for the generation of competitive ability and explanation to the boundaries of the firm.

The complementarity of the two approaches also becomes clear when it comes to asset specificity. This is because the strategic resources of the firm (RBV) can be interpreted as specific assets and, thus, analyzed from the TCE instrumental. In this sense, Combs and Ketchen (1999) point out that the vision of the approaches is com-

plementary, in part due to the recognition that specific asset share an important quality with strategic resources, that is, both are difficult to market or mimic. According to the authors, this complementarity explains why high performance between companies can be explained as either a product of organizational management focused on efficiency (TCE), or the exploration of strategic resources (RBV).

**Table 1 - Complementary aspects involving TCE and RBV**

	TCE <sup>iv</sup>	RBV	Complementarity
Origin	Importance of institutions.	Competition in imperfect markets (PENROSE, 1959).	Institutions establish the rules of the games and guarantee ownership of resources and capabilities.
Unit of analysis	Transaction.	Strategy (BARNEY, 1991) Resources (PETERAF, 1993).	Transaction costs are a result of superior resources and capabilities, whose attributes require protection.
Assumptions	Explicit opportunism. Limited rationality. Incomplete contracts led to ex-post changes in the state of nature.	Sustainable competitive advantage supported by features and capabilities. Vertical integration protects the superior conditions of competition.	Mechanisms to protect resources, capabilities and attributes, require appropriate governance structures.
Testable Hypothesis	Higher level of asset specificity implies a greater vertical integration or long-term contracts	High level of non-reproducible resources aligned to vertical integration.	Hierarchy as an alternative for protection and control of specific and strategic resources.
Main Process	Paradigm of vertical coordination	Capabilities and different resources lead to sustainable competitive advantage.	Construction of different features and capabilities in time features right to property that needs to be protected by legal or structural mechanisms.
Organization follows the rational	Governance structure results from the perspective of alignment with the transaction attributes and behavioral assumptions. Minimization of transaction costs. Decision is made <i>ex-ante</i> , considering the <i>ex-post</i> risks	Capabilities and resources should be maintained and controlled. Guarantees of property rights are necessary to explore opportunities. Decision is made <i>ex-ante</i> to generate higher <i>ex-post</i> features and capabilities.	Features and capabilities complete the attributes for governance structures necessary for the construction of lasting competitive advantages. <i>Ex-ante</i> decisions identify successful sustainable <i>ex-post</i> strategies.

Source: Adapted from ZYLBERSZTAJN, Decio. **Measurement costs and governance:** bridging perspectives of transaction cost economics. In: International Society for the New Institutional Economics – ISNIE, Barcelona-Spain, 2005.

In the vision of Argyres and Zenger (2008), one might think that RBV treats how to deal with the question of what features complement each other to produce a competitive advantage, while TCE deals with the question of which of these additional resources will be under common ownership of the firm and which are independent property. Combs and Ketchen (1999) explore another aspect when emphasizing that while RBV seeks strategic resources that require improvements, TCE focuses on how to manage these resources after identified, namely, on the choice of the most appropriate governance structures to coordinate them. Para Jacobides e Winter (2005, p. 403):

transaction costs form the trajectories of capability development, which determines the nature of the knowledge acquisition process and, quite possibly, the kind of competition that may arise in an in-

dustry and, therefore, the nature of the underlying features and capabilities that can be leveraged for competitive advantage.

In this sense, Langlois (1992, p. 105) states that "[...] you can't have a complete theory of the borders of the firm without considering in detail the process of learning in companies and markets ". This argument is also intertwined with the finding of Argyres and Zenger (2008) that the distribution of resources in enterprises, in a determined moment, reflects a number of past decisions that these companies have taken to develop or not develop intern capabilities. That is, the possession of a capacity today reflects the option to develop internally (or buy) this ability yesterday. The authors argue that these decisions were probably driven by comparison between types of possible governance or by considerations of transaction cost coming from a learning process.

Following this reasoning, Saes (2009) States that a bridge that can be made considering the two approaches is that TCE explains what governance structures are more efficient to explore the strategic resources of the firm. Likewise, RBV also supports the choice of governance structures, even because the changes in these structures depend on a feedback process, from learning and personal experiences of managers about the transaction costs involved.

Other complementary aspect presented by the theories are related to the control. Considering RBV, it is clear that there is a need for the control of differentiated features and capabilities to maintain its condition of non- mobility. On the other hand, for TCE the control relates more to minimize uncertainty conditions. In this sense, whereas the seeds of Williamson, Zylbersztajn (2009, p. 9) notes that "with respect to uncertainty [...] unexpected external shock, [...] can have real unforeseen consequences. Therefore, the uncertainty drives the need for a more intensive control ". In this way, the control, even directed to the reduction of the mobility of resources, allows the answers in conditions of uncertainty to be faster, denoting that both RBV as TCE adopt control as justification for their approaches.

Therefore, to RBV, control becomes a fundamental aspect when considering the protection of resources, which can occur in the existence of transaction or measurement costs. As highlights Saes (2009), the importance of transaction costs is that in its absence there would be the problem of creation and protection of resources, since any governance structure would be appropriate and would lead to the maximization of the value. However, the author states that when transaction costs are introduced, the property rights of the resources are not perfectly protected, and values can be cleared up for the maintenance of its ownership. Thus, it is possible to affirm that the capacity building can feature right to property that needs to be protected by legal or structural mechanisms. Therefore, the more effective is the control, the

greater the protection of property rights and less costly will be the activities for support of resource value. The consistency in these approaches, as discussed, can be summed up in the aspects highlighted in Table 2.

**Table 2:** TCE and RBV Integration points

TCE	RBV	TCE and RBV Integration points
Discusses the virtues of the hierarchy as overcoming market failures.	Discusses virtues of hierarchy in generating capacity to the firm.	Both discuss the virtues of the hierarchy.
Specific Assets.	Strategic resources and capabilities.	Both are difficult to sell and mimic.
Limited rationality. Asset specificity. Property rights.	Resource heterogeneity	Different limited rationales, specifics of assets and property rights among firms also make them heterogeneous.
Identifies which governance structures will reduce transaction costs.	Identifies what resources bring competitive advantage	Identifies which governance structures are more efficient to explore the firm's strategic resources.
The control relates more to minimize uncertainty condition.	Control occurs on differentiated features and capabilities in order to maintain their status of non-mobility.	The control, even targeted the reduction of mobility of resources, allows the answers in conditions of uncertainty to be faster.

Source: Developed by the authors.

A critical point highlighted by Saes (2009) is that RBV defends the benefits of the hierarchy without dealing with the costs of this mode of governance, what makes it impossible to predict which structure (market, contracts or hierarchy) promotes greater value generation. For instance, a rare resource can produce low aggregated value services and products or costly to govern internally, eventually value capture is not expressive. According to the argument of Saes (2009), Combs and Ketchen (1999) state that, for RBV, the choice of performing an activity via vertical integration may be preferred on market transactions, even when this choice does not reduce transaction costs. In this respect, managers face a dilemma when the resource constraints lead them to cooperation between firms, even in situations where such cooperation is not an efficient response to transaction conditions.

## CONCLUSIONS

In this article, the aim was to understand how the complementarity of TCE and RBV theories explain the configuration of governance structures in the context of New Institutional Economics. It was possible to realize that the complementary vision of TCE with RBV may be able to comprehend more fully the aspects related to the choice of firm boundaries, minimizing the individual limitations of these approaches in terms of strategic analysis.

On what was discussed, it may be affirmed that the integration of these theories brings to light their complementarity when considering that the internal re-

sources, studied by RBV, can provide the basis for the proper choice of governance structure to be used by the firm. While, at the same time, the governance structures are chosen in order to sustain and achieve competitive advantages from these resources.

Thus, the integration of the two approaches refers to considerations which imply that the sustainable competitive advantages depend not only on the creation of value through the scarce resources and difficult imitation, but also on the costs of controlling the property rights of these resources and protecting them through the use of appropriate governance structures. These interdependent processes cannot be treated in isolation without compromising the understanding of important topics in the discussion of the competitiveness of firms.

However, it is valid to call attention to the own lack of structuring of RBV, notably in terms of unit of analysis. This is an initial study that sought to position the two approaches in accordance with assumptions and complementary aspects that they feature, which demand new studies, given the complexity involved. The idea is to open paths to explore the relationships between the two theories, making it possible to articulate an approach to choose the bounds of the firm that is consistent with the concern of both the prospects, since, as pointed by Jacobides and Winter (2005), progress in the discussion on the complementarity of TCE and RBV still leave large gaps in understanding how transaction costs and capabilities combine to determine the boundaries of the firm.

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