VRIO FRAMEWORK: STATIC OR DYNAMIC?

Abstract

During the 1980s, the principal concern of theorists in what regarded strategic management was linked to the analysis of the external environment.

However, many researchers defend that considering the turbulence of today's business environment with the technology' advancement, the ever-changing industries and with an ever continuingly-increasing reduction in the time-frame of competitive advantage, a resource-based view has been gaining its own space regarding strategic formulation.

Despite of the model's capability, the theory has received diverse criticism during the last years, which we believe that some of these criticisms deserve to be analyzed. Therefore, the present article intends to illustrate a new theoretical basis for the analysis of the resources and capabilities in order to explain the advantages of applying a conceptual model that articulates the VRIO framework, initially developed by Barney (1991) with a new conceptual model that allow companies to perceive the dynamism of the company's competitive advantage through the inclusion of the values, dynamic capabilities and governance concepts from the VDS acronym.

The article is subdivided into six parts, the first part is referent to the theoretical exploitation of the RBV dematerialized in the creation of the VRIO model. The second part presents the main criticisms existent in the literature regarding the model and its limitations. The third, fourth and fifth parts refer to the approach in order to achieve the articulation between the VRIO model and the three additional parameters. In the sixth part, the new model will be presented and lastly, some considerations will be presented regarding this subject.

Keywords: Resource-Based View; Competitive advantage; Strategic Management; VRIO Framework; Value creation

1. Introduction

During the 1980s, the principal concern of theorists in what regarded strategic management was linked to the analysis of the external environment. The main goal of managers was focused on the manipulation of the markets so as to obtain competitive advantage which allowed companies to position themselves through leadership.

However, over the years, with the technology' advancement, with the ever-changing industries and with an ever continuingly-increasing reduction in the time-frame of competitive advantage, a resource-based view (RBV) has been gaining its own space regarding strategic formulation; not only because the returns provided by the resources give the possibility to be above the opportunity costs themselves, but also due to the inexistence of flows that may detract from an assertive decision-making due to the inconsistency in reflecting the demand-side (Wills-Johnson, 2008).

The strategy emphasis of the supply-side, allow us to focus on strategic formulation on a more stable basis based on the analysis of the company's internal resources and capabilities, not being conditioned by the failure of macroeconomic policies, preferring instead to guide companies in order to improve their industrial production, to acquire equipment and to qualify and train their human resources, providing a unique character that is difficult to imitate. This is the essence of school based on resources (Penrose, 1959; Prahalad and Hamel, 1990; Teece *et al.*, 1997; António, 2006, Teece, 2007; Barney and Hesterly, 2012).

According to this perspective, the distinct competencies of a company are based on the resources and capabilities that can be expressed as tangible assets (distribution systems, economies of scale, factories, lands, raw materials, equipment, indebtedness, capacity to manage internal funds), intangible assets (patents, technological know-how, technical know-how, reputation, brand image) and human assets (including all the potential development of human resources, “know-how”, motivation, commitment).(Barney, 1991; Barney and Hesterly, 2010; Barney and Hesterly, 2012)

It can then be said that a company is a bundle of resources (which are the company assets), skills (what we know how to do well), and capabilities (what we know how to do using our resources and capabilities), meaning that the competitive advantage will have to be translated into something rare, inimitable, non-substitutable and dynamic. This idea of statisticism within the competitive advantage concept from the 1980s was replaced by something that cannot stop over time, otherwise it will be emphasized into something temporary (Lopes da Costa and António, 2017)

The resource-based theory is therefore anchored in a classical dimension that has enabled itself to assert as dominant in the strategic area in the last 30 years. In this field, the objective of a company is mainly to obtain or organize resources that are superior to those of its competitors (Lopes da Costa and António, 2017).

It is quite usual to find in the literature some terminological confusion regarding the resources concept, nuclear competence, capability or asset, even though during the needed systematic analysis, we are essentially portraying the same, being that the capabilities are materialized in what the organization produces and results from the joint work of several groups of resources (António, 2006; Lopes da Costa and António, 2017). On another hand, both the theory and the capabilities development focus on various organizational aspects, such as, R&D, speed of distribution, negotiation, flexibility and speed of response, response to market trends, efficient brand management, efficient relationship with the client, acquisition and development of latent resources (especially human), access to external capabilities through alliances and acquisitions, investment in "Greenfield" with capabilities in separate units, values transformation capability and obsolete behaviors, products sequencing and, of course an excellent tacit management and explicit knowledge enveloped in this whole framework.

In order to analyze the different resources and capabilities held by a company, as well as the potential of each of these to generate competitive advantage, the authors use the VRIO Framework (Barney, 1991; Barney 1995) that was developed in the 1990s as the reason for the RBV and all of the business implications that underlie them.

Despite of the model's capability for allowing the operationalization of the resource-based theory, during the last years it has received diverse criticism (Priem & Butler, 2001; Lockett *et al.,* 2009; Kraaijenbrink *et al.* 2010). Although the founder of the model has rebuffed the criticism, we believe that some of these criticisms deserve to be considered and analyzed.

In this article, we intend to demonstrate that not only does the application of the VRIO framework developed by Barney (1991) allows for good results, but the model can be improved with the introduction of some of the criticisms that were made, namely the question of its articulation with the dynamism of the VDS acronyms. Therefore, the conceptual nature of this article has as main objective to illustrate the inclusion of new analysis parameters in the VRIO framework, contributing to the robustness of the model.

The article is subdivided into six parts and the first part is referent to the theoretical exploitation of the RBV dematerialized in the creation of the VRIO model as presented below.

2. VRIO Framework

The resource-based theory is based on two fundamental assumptions: resources and capabilities that can be controlled by the company, considering that some of these are linked to the heterogenous nature of the different type of resources and capabilities that companies can hold; others refer to the immobility aspect and to its enduring character, in this case against the costs that companies will have to bear to develop or obtain something similar. It can be said that a company that has valuable resources and capabilities that are difficult to imitate in view of the costs involved in developing or obtaining something similar holds tangible and intangible assets that guarantee them a sustainable competitive advantage (Lopes da Costa and António, 2017).

In order to analyze the different resources and capabilities that a company holds, as well as the potential of each of these to generate competitive advantage, the used tool is the VRIO Framework. This tool should be applied using a set of four questions about the resources and capabilities that determine the competitive advantage potential of each of these in terms of: Value, Rarity, Inimitability and Organization (Barney, 1991; Barney, 1995; Barney, 1997; Barney and Zajac, 1994; Barney and Wright, 1998; Barney, 2001; Barney and Hesterly, 2010; Barney and Hesterly, 2012).

Understanding the value of resources and capabilities of companies is the first important consideration to realize in order to figure out the inherent strengths and weaknesses. To gauge the value of a particular resource or capability we need to answer the following question: “Does the resource or capability allow a company to explore an opportunity or counteract an external threat?” Whenever the answer is yes, we are facing a valuable resource (or capability), and this factor can be considered as a company’s strength that will allow the improvement of its competitive position. Otherwise, the resource (or capability) is not valuable. Besides, the answer to this question may also be linked to the concept of dynamic capabilities namely the sensing category defined by Teece (2007) which is strongly related to the notion of market-focused learning and implies the identification, development, co-development and assessment of technological opportunities in relationship to the customer needs (Shu-Mei and Pei-Shan, 2012). Nevertheless, we must bear in mind that in some cases the full answer to this question requires detailed operational information that may not be readily available. In these cases, there is a relatively easy way to identify the impact of a company’s resources and capabilities on its opportunities and threats by examining the impact of its usage in terms of revenues and costs – which will be manifested, in the limit, in an increase of revenues or a decrease of costs. This reasoning leads us to the seizing category (Teece, 2007) which captures how companies mobilize resources in order to address the needs and opportunities and capture its value.

In what regards the rarity question, a firm will have a competitive advantage when is implementing a value-creating strategy that is not simultaneously implemented by a large number of other firms, otherwise the firm will face a parity situation. This brings us to the rarity question: “How many competing companies already have these valuable resources and capabilities?”. (Barney, 1995, 52) That is, a valuable resource (or capability) should be rare in order to generate potential competitive advantage for the company. Nonetheless, it is possible, however, that a small number of companies within a given industry have a valuable resource or capability and gain competitive advantage if this small number of companies, that owns the resource or capability, are clearly less than the number of companies needed to create a dynamic of perfect competition in this sector. In this case, this resource or capability can be considered rare and a potential source of competitive advantage.

According to Barney and Hesterly (2012), companies that have valuable and simultaneously rare resources are able to conceive and implement strategies that other cannot and can therefore benefit from the pioneering advantages of the market. However, rare and valuable organizational resources can only be sources of sustainable competitive advantage if firms that do not have them face a cost disadvantage when trying to obtain or develop them, and this leads us to the imitability: "Do companies that do not have a particular resource or capability face a cost disadvantage to obtain or develop it in relation to all the others that already have it?" If the answer is affirmative, it is said that the company that owns them has an imperfectly imitable resource and was able to conquer for that same reason a sustainable competitive advantage. Companies that possess and exploit rare, valuable, and hard-to-imitate resources can thus enjoy a sustainable competitive advantage (Barney, 1991; Barney, 1995; Barney, 1997; Barney and Zajac, 1994; Barney and Wright, 1998; Barney, 2001).

Resources and capabilities can be imperfectly imitable due to the following reasons: unique historical conditions, causally ambiguous, social complexity and patent's phenomenon. The historical conditions are fundamentally linked to two circumstances that can provide a sustainable competitive advantage. The first is related to the possible advantage that a certain company may hold due to having pioneered a certain sector, thus giving its rivals a greater difficulty to acquire or develop something similar to the cost they will have to bear. The second circumstance is based on the concept of "path dependence". A process is said to be path dependent when a company first obtains access to a resource or capability at a reduced cost (this due to the fact that the full future value of the resource or capability is not yet clear defined) and the acquisition or development of this resource or capability by third parties will be very difficult to achieve due to the costs that they will have to bear in order to achieve it. This situation results from the fact that the costs of acquiring duplicate resources and substitutes increase as their total value becomes known in market terms.

The second reason is related to the fact that imitative companies may not understand the relationship between the resources and capabilities controlled by their competitors. Often, in this area, even corporate managers do not realize properly the value of the resources and capabilities that they have created, and which are currently one of their sources of competitive advantage. The practices and activities that have been created throughout its time are for these individuals so basic that they do not have the exact perception of their value. This is one of the reasons why they do not understand the relationship between resources and capabilities and the subsequent source of competitive advantage of their competitor, being to this extent very difficult to understand what resources and capabilities should be imitated. It is important, however, to identify and evaluate which of these resources and capabilities, alone or in combination, are effectively a source of competitive advantage, because even though managers may think that all the inherent characteristics of social complexity may be important for success of their companies, not all of them allow a competitive advantage to be held, being important to test cause-effect relationships in order to clearly identify which of these are generating this competitive advantage (Lopes da Costa and António, 2017).

Moreover, it is important to frequently keep this social complexity as a source of competitive advantage resulting from the combination of various resources and capabilities. In this case, complex networks of relationship between individuals, groups, and technology can be a powerful source of competitive advantage. The attempt to imitate, in this case, can lead to a consequent competitive disadvantage since this capability allows the company that holds it to respond almost immediately to this imitation, which places the copycat in a difficult situation. Whenever the sources of competitive advantage are widely diffused among people, locations and processes, these processes will be difficult to imitate.

The third reason why a company's resources and capabilities can be difficult to imitate is related to social complexity. When competitive advantages are linked to social complex phenomena, the ability of other firms to imitate them diminishes (Barney, 1991; Barney, 1995; Barney, 1997; Barney and Zajac, 1994; Barney and Wright, 1998; Barney, 2001).

The fourth reason responsible for the difficulty to imitate a company's resources and capabilities is related to the patents' phenomenon, which in the case of pharmaceutical and chemical industry is particularly prominent since those companies prevent other companies from marketing the same products until the patent's expiration date (Barney, 1991; Barney, 1995; Barney, 1997; Barney and Zajac, 1994; Barney and Wright, 1998; Barney, 2001).

As we have previously noted, a company's potential to hold a competitive advantage depends on the value, rarity and imitability of its resources and capabilities; however, so that this potential can be effectively leveraged, the enterprise must be organized in order to properly exploit those same resources and capabilities. The organizational question in the VRIO model is based on the following: "Is the company organized to exploit to the maximum the competitive potential of its resources and capabilities?"

From the application of the VRIO model and its four parameters of analysis, we could realize that although a company may be operating in a very unattractive sector, it may have valuable resources and capabilities, which are rare and difficult to imitate, and by exploring them in the best way possible, they are taking advantage of their owns strategy. By basing this factor on an organizational structure that supports this assumption, using an efficient formal and informal management control system and applying appropriate remuneration policies, we can say that this company has a sustainable competitive advantage. Nevertheless, the company must, above all, treat the "O" of the model as a dynamic capability in order to be able to properly reorganize its resources and capabilities in the face of external challenges.

The application of the model promotes the rationale of the RBV and all the business implications underlying them, highlighting the resulting competitive dynamics and that should be reflected in the detention of active resources, capabilities to be acquired or build, in the processes that are institutionalized through these competitive advantages and, consequently, in the quality of the products and services that are available in the market. Apart from this, the theory has received various criticisms which are presented in the second part of the article, as well as, the model's main limitations existent in the literature.

3. VRIO Model Criticisms

Despite the various criticisms that the RBV theory has received in recent years (Priem & Butler, 2001; Kraaijenbrink et al., 2010), both in relation to the tautological aspect that surrounds it, as well as the limitation of the predictive aspect and/or the little consideration that it dispenses to the market [the well-known antagonism between the assumptions of Porter's and RBV's economics foundations is highlighted by Barney (1991), highlighting the ideological differential between the homogeneity and the perfect resource mobility of Porter's theory and the heterogeneity and imperfect mobility of RBV]; it is believed that none of these elements compromise the contribution that the theory has brought to strategic thinking (Acedo *et al.,* 2006; Newbert, 2007; Armstrong and Shimizu, 2007; Lockett *et al.*, 2009).

According to Przyczynski and Bitencourt (2011) and taking into consideration more than 50 papers reviewed on RBV, about half illustrate the advances in the theory over the last 30 years, highlighting the emergence throughout this time of theoretical extensions to RBV guided by the inclusion of parameters such as performance, superior profit, advantages, value, capacity, reputation, competition, decision, heterogeneity, purchasing power, organizational identity, administrative cognition, sense-making, synergy and knowledge. Considering the same authors, thirty percent of the same analyzed portfolio begins to cover other relevant areas and sub-areas such as strategic alliances, organizational governance, social capital, information systems (IS), knowledge management, industrial organizations (IO), human resources (HR), economics, psychology, entrepreneurship, marketing, "e-commerce", "outsourcing" and even non-profit organizations. As a result of this analysis, a set of critiques have been discussed by several authors about the support pillars of RBV (in a general perspective) and about the exponentiality of the competitive advantage appropriation resulting from the application of the VRIO model (in a more specific perspective); moreover, three of which could not be challenged or contested by Barney due to the lack of theorization and additional empirical studies to support his defense.

One of the criticisms is that the VRIO model does not explore the relationship between the different economic theories and the RBV. Lockett and Thompson (2001) were the main protagonists of this critique, creating a deep look at the RBV's relationship with economic theories (such as Transaction-Cost Theory and Agency Theory) explaining that the economy and the VRIO model itself in an optic of applicability, neglecting the interactions between the RBV and the "governance" (council composition, monitoring systems) suggesting that the external and internal mechanisms of "governance" should be considered as relevant resources for companies, both in terms of the agency cost's implications, but mainly in the affectations of these factors in terms of the individual performance of the organizations. Under this reasoning, we suggest the inclusion of superior governance as a complementary concept to the model in order to understand if the company relies on a model of governance that is based on the monitoring of its resources and capabilities and that emphasizes an association between the associates (working together) and the policies and processes so that company's shareholders and stakeholders expectations are met.

Another of these criticisms is related to the exploration of the dynamic relations of resources and capabilities. It is understood that, theoretically, the approaches contemplate the resource dynamics argument, as in Collis and Montgomery (1995), which present the dynamic interaction between the three fundamental market forces (scarcity, appropriability and search) in order to determine the value of a resource or capability. But RBV remains to be determined in regard to its relationship with organizational strategy and performance in order to transform it into a dynamic (rather than static) theory based on the analysis of the dynamism of capabilities and resources.

In an attempt to bridge this reference gap, Cardeal and António (2012) suggested that the "O" of the VRIO model can be transformed into the identification of dynamic resource's packages in favor of the desired competitive advantage. Even though, in this assumption, the absence of the "O" leaves it to be determined whether the company is organized to exploit at the maximum the competitive potential of its resources and capabilities, which, by filling a gap, does not fail to consider the existence and rebirth of another. Therefore, the authors suggest also the inclusion of the dynamic capabilities' concept as a complementary factor for the model so that a proper analysis can be ensured in what regards the analysis of a basis of continuity regarding the creation, extension and modification of the organization's resources and capabilities. Moreover, dynamic capabilities are recognized as a crucial response to face the market competitiveness through the organization's ability to create, extend and modify its resources and capabilities (Teece *et al.,* 2007).

Still, assuming that the culture of an organization is shaped by norms, beliefs, values and central patterns that structure the organizational dynamics (Schein, 1992; Schein, 2010), it is important to consider within the RBV area if companies have a culture that outlines their environment and social relationships resulting.

In the literature, organizational (or administrative) culture can be analyzed as a continuous and proactive process of reality construction, which refers to the existence of an active and living phenomenon on which people create and recreate the systems in which they interact, influencing therefore the culture perception of each member of the organization. We can assume from this perspective that culture is the primary way of transmitting feelings, creating identity, and strengthening control mechanisms that lead to the existence of norms, rules and behaviors, but also an effective organizational strategy (Schein 1992; Schein, 2010). Values are therefore constituted as the gestation phase where a set of intangible resources are generated that will tend to be developed over time to create the desirable and dynamic assumptions of the RBV mechanism to create competitive advantage. Under this line of thought, the last factor that the authors suggest adding to the model are the organizational values whose creation and constitution is dependent on the company's resources and capabilities since afterwards goals, objectives and indicators developed are directly associated with them.

In short, the theoretical and empirical development of RBV has been analyzed in numerous studies that revise it, and approach it as a theory capable of explaining organizational performance differences based on a movement mechanism characteristic of the XXI century (António, 2006; Lopes da Costa and António, 2017). As per the suggestions added above, we believe that some of the criticisms that the RBV theory has been receiving should be considered as motivating factors for the operational model adjustments developed by Barney, promoting the necessary mechanisms for the construction of a more solid model in order to determine the sustainability of the competitive advantage of any organization.

In alignment with the inputs provided above, we suggest the development of a more solid model by the inclusion of the following three factors: organizational values, dynamic capabilities and superior governance. Therefore, the third, fourth and fifth parts of the article refer to the approach in order to achieve the articulation between the VRIO model and the three additional parameters.

4. Organizational Values

Tamayo and Borges (2001) point out that organizations face three fundamental requirements: the need to reconcile individual and collective interests, the establishment of a structure that guarantees the achievement of the organization's goals and objectives and the relationship between the organization and the physical and social environment. According to these authors, organizational values are an exact guide to the satisfaction of these needs, as they are the adequate response to concrete problems from successful solutions in the past.

These ideas had already been defended by Connor and Becker (1975) many years before, because, according to these authors, when conceptualizing values as principles or beliefs, hierarchically organized, related to desirable organizational behaviors or goals, that guide the life of the organization and/or serve individual and collective interests, we can in fact explain many of the business phenomena and provide adequate responses to concrete problems.

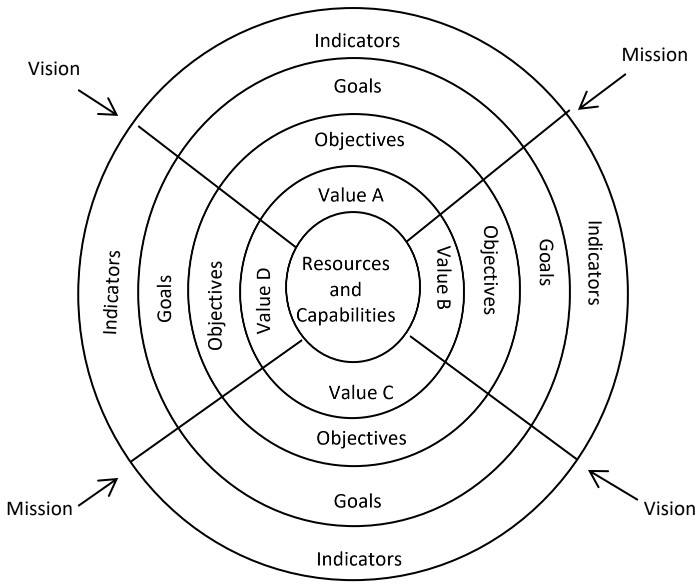
In this way we can assume that values are part of a dialectic of maintenance and transformation of human behaviors through permanent socialization and learning, being therefore a key factor when modeling behaviors according to their interests (Schein, 2010).

Tamayo and Gondim (1996) argue that organizational values have three basic aspects: (a) cognitive – represent cognitive responses to organizational problems, (b) motivational - express fundamental interests and goals and, (c) hierarchical organization - represent preferences for certain behaviors, goals or strategies in detriment of others.

Although organizational values appear recurrently linked to the infrastructure of strategic formulation creation and appear intrinsically linked to the RBV, in an intangible way, in the assumptions of the VRIO model, the truth is that the question of values is difficult to understand when we intend to study them in terms of their impact on the company's competitive advantage.

It is in this context that it is important to highlight the value's concept in a dynamic perspective of the sustainable competitive advantage that must support the application of the VRIO model, whose concept must appear through an effective connection between the company's resources and capabilities, the organization's values and related goals, objectives and performance indicators (standard indicators but also customized to the needs of the directions and areas of activity linked to them) - Figure 1.

Figure 1: Organizational Value Model



Source: Author's Elaboration

We consider that companies must implement in their business context the approach to the organizational values model, where resources and capabilities gain prominence, constituting themselves as the lubricant for the constitution/creation of the company's values. Afterwards goals, objectives and respective performance indicators are created, which will then be associated with them, allowing the company to be controlled in an intelligent way, both globally and individually. The strategic formulation created on this assumption aims to achieve greater comfort, information, security and alignment (including with it, its vision and mission), which will allow the company to focus on a more stable basis to control its resources and capabilities and out of all its business structure, having the resources and capabilities as the heart of the model.

5. Dynamic Capabilities

According to most of the contemporary approaches, surviving and thriving in conditions of change includes developing "dynamic capabilities" to create, extend and modify the ways of the internal structure of the organization's life. However, it is important to emphasize that the search for change and innovation and the search for opportunities to create a change (which can assume different typologies: organizational, technological or strategic) creates tensions, since both situations are directly linked to the organizational routines and the consequent constraints they validate (Teece *et al.,* 1997; Døving and Gooderham, 2008).

If innovation is conditioned by the routines of the organization and if these routines incorporate individuals' abilities, then we can affirm that the innovation process is strongly linked to the competencies and capabilities that are present within it. In this way the competences are now recognized as strategic assets with a high level of specificity since they strongly condition the degree of organization's dynamics competitiveness, meaning that the resulting knowledge must be considered as one of the most important (intangible) assets significant in the context of the company (Zahra *et al.,* 2006; Di Stefano *et al.,* 2010).

In an ever-changing environment, the question is how organizations can and should renew their capabilities in order to react to the market's competitive dynamics, being in this field of analysis, the dynamic capabilities, a crucial response to face this market competitiveness. It should be understood basically that "dynamic capability" is the ability of an organization to purposefully create, extend or modify its base of resources (Cavusgil *et al.,* 2007; Wu, 2010). It is important, however, to distinguish clearly the difference between operational and dynamic capability. If the former is circumscribed to actions that are raised by internal challenges in a purely technical intention and are intended to promote significant changes in a short space of time which difficult *a priori* to generate a sustainable competitive advantage (Lecocq *et al.*, 2013); the latter are motivated by the need to adapt to external and environmental challenges and seek a set of activities on a continuously and modifiable basis to improve the company's *status quo*. Moreover, despite the unequivocal similarity that the concept may have with "routine" – which is a behavior that is learned, highly patterned and founded in part in tacit knowledge (Winter, 2003); dynamic capabilities are distinguished from these since they are related to a specific purpose (Prieto *et al.,* 2009; Barreto, 2010) and are the organizational and strategic routines by which firms and managers achieve new resources configurations (Eisenhardt and Martin, 2000).

In an integrated way and considering what has been said above, we can thus understand dynamic capabilities as something that seeks to perform in a reliable and repeatable way a set of intentional activities with specific purposes, and these can be learned and exercised both on a group and individual level. Under the same reasoning, their conceptions will always be dependent on the different contexts in which they can be reflected and should vary accordingly to the strategic vision of the different organizations (Liao *et al.,* 2009; Ambrosini and Bowman, 2009; Ambrosini *et al.,* 2009).

Dynamic capabilities have enough power to alter both the operational capabilities and the company's own routines in a ceaseless search for change and opportunities that the market can offer at any given time. We can thus affirm that dynamic capabilities have as function, on the one hand, to identify needs and/or opportunities to change, formulate a response to these needs or opportunities and implement the strategy, and on the other hand, lead the company on the new products or corporate strategies' development that can determine competitive advantages (Kay, 2010).

To sum up, the resource-based approach focused on dynamic capabilities as a strategic orientation has repercussions on the capacity that managers can have in materializing what the organization produces successfully from the joint work of several resource groups, dematerializing itself in a continuous commitment to the creation of diverse abilities, behaviors and organizational capabilities, in the creation of routines and processes for the maintenance of business growth, in the continuous bet on research and development, in the capacity to learn and learn and learn, in the capability of undertaking and creating intrapreneurship, providing constant innovation, strategic flexibility in terms of planning, negotiation capacity, flexibility and speed of response to the market, the ability to respond to market trends, the speed of management of the distribution component, adequate brand management or excellent management of the relationship with our clients (Lopes da Costa and António, 2017).

6. S *(Superior Governance)*

The Anglo-Saxon model, that is, the agency theory, as it is known in the business world, has been a model widely used over the years in universities by authors like Eisenhardt (1985) or White (1985) and, although some authors such as Perrow (1986) surround it with a certain degree of controversy, by calling it trivial and dangerous, the truth is that whether we want it or not, the model personifies the foundation of a powerful organizational theory (Barney and Ouchi, 1986; Eisenhardt, 1985), being its example "characterized by its great universal character" (Ross, 1973: 134).

According to the agency theory, the organizational life is shrouded in personal interests (Barney and Ouchi, 1986) and risk (Walker and Weber, 1984) that can influence contracts between the agent and the principal. But more important than the disclosure of personal interests between actors or demonstrating the existence of the risk involved in this interaction [which in the latter case as evidenced by Eisenhardt (1989) can be suppressed by investing in information systems that can control somehow the opportunism of certain managers, or in internal collaborative networks based on stable bases] the essential is to view the model as essential in its perspective of analysis to consider when compared with other complementary theoretical perspectives.

In the principal-agent model, the "stakeholders" involvement is absent, being more closely linked to a way of managing where competitiveness is the watchword. In this governance structure, the aggressiveness of sharing markets and profits, and the conflict between personal and organizational interests, redesigns a model that for many is wrong, because it focuses on an unsophisticated vision of the company and the exclusion of a collectivisms of paradigms and synergies that characterized the beginning of the XXI century.

The idea is for the company to have a different vision of itself, considering the company as a social vehicle, involving its resources and business capabilities as a whole so that the combination of forces and knowledge effectively results in competitive advantage.

It is suggested that the company's build a governance model that relies on the monitoring of its resources and capabilities, such as (1) the organizational development based on the implementation of management's information technologies and the human resource's qualification, (2) collective social responsibility on the environmental field, (3) Monitoring of Corporate Performance, performed by all the "stakeholders", (4) focus on training, (5) operating costs also borne by certain "Stakeholders" (diluting the Anglo-American vision where cost and profit are the responsibility of the company that buys the product), (6) bank financing rather than the stock market, (7) recognition of group relationships and long-term partnerships, (8) inventive cooperation of employees, (9) strong concentration of individual company property, (10) reputation in the quality of relationships, (11) being ethical with the suppliers, customers, employees and other stakeholders, (12) support to causes of the undeveloped countries, (13) close correspondence between owners and managers in SMEs, (14) product-driven rather than market-driven, and (15) cooperative and innovative management between firms.

The idea is that the company develops internally a model of German-Japanese governance, giving it a character that is difficult to imitate, because this the essence of the school based on resources and based on idea of a company as an association of people working together instead of a company as a property of the shareholders – as defended by the Anglo-American model. (Fliaster and Marr, 2010)

After describing the three concepts under analysis, in the sixth part the new model will be presented.

7. Creation of the alternative model to the VRIO Framework

As any work in progress, there is no universal model of business management, nor should one think in terms of a single, efficient management structure that everyone shares. Management is and will always be regarded as something systemic and constantly evolving. Companies should therefore be encouraged to learn from each other and to exchange experiences, points of view and ideas, regardless of the country or continent where they are located, because, as in any management structure, the secret will always be to adopt the best policies and practices.

The idea is that best practices can be built from the development of academic models that can be later implemented by companies. We are facing a world that has to be thought of in a complex way and by dealing with innovation, entrepreneurship, motivation, work' synergies among employees, customer's involvement, suppliers and communities. These are aspects that cannot be neglected; however, they also imply a great ability to integrate the best existing knowledge and apply it to the practice of this idea.

The model presented below is based on a theoretical orientation of the assumptions presented so far and it shows that planning business strategy from a resource-based perspective may in fact be seen by companies as a key factor for their success, using an approach from within the organization, sustained not only by identifying the competitive advantage typology but above all by identifying the dynamism of this same competitive advantage.

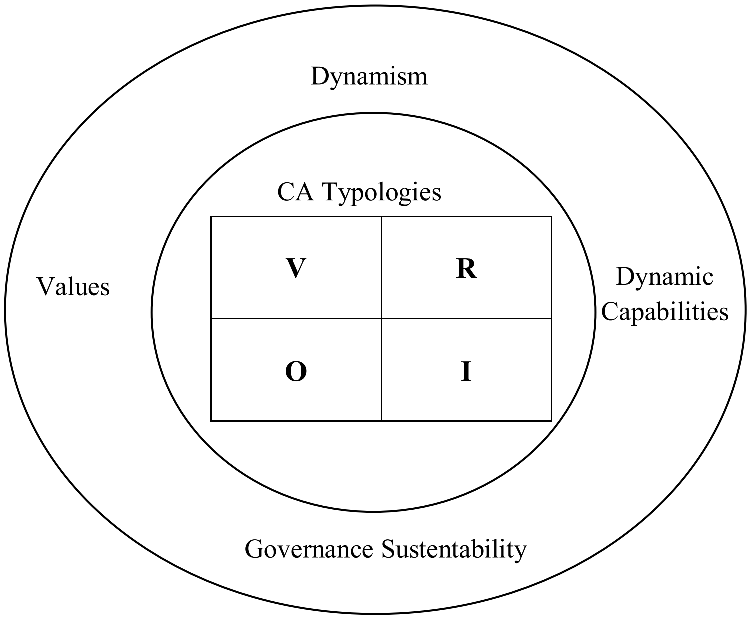
In short, Barney's (1991) reproduction, referring to a company that has valuable, rare, hard-to-imitate and that owns intangible assets in a convenient way to ensure sustainable competitive advantage, while remaining valid, requires a complementary evaluation that allows dynamism to have the same competitive advantage, through the authentication of three complementary phases: values, dynamic capabilities and governance sustainability. As stated before, organizational values are an exact guide to the establishment of an organized structure that guarantees the achievement of the company's goals and objectives and the relationship between the organization and the external environment (Tamayo and Borges, 2001). Despite of the fact that organizational values appear frequently connected to the strategic formulation process and appear directly related to the RBV – the truth is that the question of values is difficult to understand when the purpose is to study them in terms of their impact on the company's competitive advantage. Therefore, it becomes important to highlight the value's concept in a dynamic perspective by considering the organization's values and related goals, objectives and performance indicators.

This dynamic perspective is also relevant when a link is established by the company's life cycle and the surrounding environment since in an ever-changing environment, the question is how organizations can and should renew their capabilities in order to react to the market's competitive dynamics. In fact, as per most of the contemporary approaches, in conditions of change, companies' survival implies the development of dynamic capabilities to create extend and modify the ways of the internal structure of the organization's life (Teece *et al.*, 1997).

Apart from this reasoning, corporate governance must be considered as a system which controls and manages the company' activities. One of the models widely used over the years is the Anglo-Saxon Model in which the stakeholder's involvement is absent and a conflict is present between personal and organizational interests. However, companies as social vehicles involve its resources and business capabilities as a whole so that this combination results in competitive advantage. For that it is suggested that companies build a governance model of German-Japanese governance that relies on the monitoring of its resources and capabilities and that emphasizes a system involving people, processes and policies aiming to efficiently use the organization's resources.

In the figure below is represented the connection between the VRIO model and the three complementary phases.

Figure 2: Competitive Advantage dynamism and typologies (VRIO – VDS Framework)



Source: Author's Elaboration

Thus, in the first phase, the perception of any organization must be identified by the type of competitive advantage it possesses, through the analysis of its valuable and rare resources and capabilities, difficult to imitate (considering the costs involved in developing or obtaining something similar), and by the perception that they are being exploited in the best possible way in order to allow to take advantage of them in pursuit of their strategy. In a second phase, the company should focus its analysis on the dynamism that is intrinsically linked to this competitive advantage, through the analysis of values, dynamic capabilities and governance sustainability.

In the figure 3 is highlighted the VRIO-VDS Framework' application and practicability through the analysis of the competitive advantage typologies and of its dynamism.

Figure 3: "VRIO – VDS *Framework"* Model Application

Competitive Advantage Typologies

Value	**Rarity**
Does the resource or capability allow a company to exploit an opportunity or counteract an external threat?	How many competing firms already have particular valuable resources and capabilities?
Organization	**Inimitability**
Is the company organized in order to exploit at the maximum the competitive potential of its resources and capabilities?	Do companies that do not have a particular resource or capability face a cost disadvantage to obtain or develop it in relation to all the others that already have it?

Competitive Advantage Dynamism

Values	**Dynamic Capabilities**	**Governance**
Is there an effective link between organizational values and the company's resources and capabilities? Is the company being intelligently controlled through an effective link between resources and capabilities, values, goals, objectives and performance indicators? **(organizational values model)**	Do we produce and do well based on the joint-work of various resource groups? Is there a clear bet on a basis of continuity in the creation of skill sets, behaviors and organizational capabilities?	**Sustainability** The company relies on a model of governance that is based on monitoring its resources and capabilities

Source: Author's Elaboration

"Internal resources and capabilities determine strategic choices made by firms while competing in their external business environment" (Madhani, 2009). Therefore, firstly we suggest the analysis of the firm internal factors through the implementation of the VRIO Model ensuring a linkage between resources/capabilities and a superior competitive advantage through the criteria defined in the first matrix. As per this application, we would conclude that amending this framework (developed by Barney in 1991) a sustained competitive advantage derives from resources and capabilities that are valuable, rare, difficult to imitate and within a company that is organized to exploit and deploy them.

However, as it was presented before, static resources or capabilities do not provide competitive advantage (Priem and Butler 2001). This limitation can then be addressed through the inclusion of the dynamic capabilities concept ensuring that the firm's processes use resources to match and create market change (Eisenhardt and Martin, 2000). Dynamic capabilities require that firms establish processes that enable them to modify their resources and capabilities and even markets over time (Madhani, 2009). Under this reasoning, we suggest the inclusion of superior governance so that the firm relies on a model of governance that is based on monitoring its resources and capabilities so that the needed modification and renews can be properly addressed.

Along with the dynamic capabilities, the sources of sustainable competitive advantage are directly related to each process of the organization itself, which means that, must be sought both in the organization and in the interaction of the environment (Zegarra, 2016). For that, we consider that companies must implement in their business context the approach to the organizational values inclusion/model, allowing the company to be controlled in an intelligent way.

The strategic formulation created on this assumption aims to achieve greater comfort, information, security and alignment, which will allow the company to focus on a more stable basis to control its resources and capabilities and out of all its business structure, having the resources and capabilities as the heart of the model.

Final Considerations and Managerial Implications

The present article sought to illustrate a new theoretical basis for the analysis of the resources and capabilities in order to explain the advantages of applying a conceptual model that articulates the VRIO framework, initially developed by Barney (1991) with a new conceptual model that allow companies to perceive the dynamism of the company's competitive advantage.

The theoretical basis of this article also aimed to explain the advantages resulting from the application of this new integrative model and, at the same time, address some of the criticisms made in the literature by creating a more consistent model, namely by focusing on the VRIO acronyms, but also on the articulation of the model with the dynamism of the VDS acronyms.

The conceptual nature of this article has as main objective to illustrate the inclusion of new analysis parameters in the VRIO framework - developed in 1991 by Jay Barney – contributing to the robustness of the model.

In this sense, we have tried to contribute to the academic research through a new application scope of the RBV in order to answer to the expectations of the professionals in the business area, many of whom are beginning to be disappointed with what the management schools have offered so far. This contribution is particularly relevant at a time when organizations are in an increasingly turbulent environment and when resources on the basis of their competitiveness are becoming more and more tradable.

Although these tasks may vary from organization to organization, it is essential both for the academic and the professional milieus to know the “consequential details” of the strategic work and so that the professionals in the field learn to adapt and to make use of them in their particular contexts.

Reinforcing the RBV’s literature, the argument conveyed in this context is that the achievement of the competitive advantage may depend not only on the surrounding environment but essentially on the exploitation of the company’s resources and capabilities.

The basic idea of the RBV is to identify a firm’s resources and capabilities that bundled together allow firms to achieve a sustainable competitive advantage and based on these properly decide where and how to compete (Teece *et al.*, 1997). In this way, in order to be classified as sources of sustainable competitive advantage, resources and capabilities need to meet four well-established criteria proposed by Barney (1991) – VRIO Framework.

Despite the fact that the theory has been acknowledged as a guiding theory in strategic research with a widespread dissemination in academic literature (Acedo *et al.*, 2006), yet, it has been subjected to a number of criticisms for many weaknesses.

One of the criticisms is that the VRIO model does not explore the relationship between the different economic theories (e.g. Transaction-Cost Theory and Agency Theory) and the RBV (Lockett and Thompson, 2001). These authors suggest that there is no interaction between the RBV and the “governance” (e.g. monitoring systems). Another of the criticisms is related to the statisticism of resources and capabilities.

Moreover, it is relevant to underlined that despite the various criticisms that RBV theory has received in recent years, it is believed that none of those elements compromise the contribution that the theory has brought to strategic thinking (Acedo *et al.,* 2006; Newbert, 2007; Armstrong and Shimizu, 2007; Lockett *et al.*, 2009). However, as per the purpose of this research, it was intended to demonstrate that not only does the application of the VRIO framework developed by Barney (1991) allows for good results, but the model can be improved with the introduction of some of the criticisms that were made, namely the question of its articulation with the dynamism of the VDS acronyms.

In fact, we address the two main criticisms with the dynamism of the VDS acronyms as per the following reasoning: static resources or capabilities do not provide competitive advantage (Priem and Butler 2001) which requires processes that enable firms to modify their resources and capabilities in order to match with the market's needs/changes (dynamic capabilities) – inclusion of dynamic capabilities. In order to ensure that the needed modifications and renews are properly addressed, a superior governance must be In place so that the firm relies on a model of governance that is based on monitoring its resources and capabilities – superior governance inclusion. Lastly, along with the dynamic capabilities, the sources of sustainable competitive advantage are directly related to each process of the organization itself, which means that, must be sought both in the organization and in the interaction of the environment (Zegarra, 2016). For that, companies must implement in their business context the approach to the organizational values inclusion/model, allowing the company to be controlled in an intelligent way.

Dynamic capabilities are viewed as a source of sustainable competitive advantage, and the inclusion of this concept to the initial model developed by Barney (1991) will reinforce companies to obtain a better performance through the development and management of their dynamic capabilities in response to the surrounding environment (Lin and Tsai, 2016).

Further research could explore the VRIO-VDS Framework considering the digital transformation currently undergoing as these solutions allow companies to easily access to huge amounts of data and information that combined with the know-how existent within the organization might be a relevant factor to the development of unique solutions and therefore for the achievement of a sustainable competitive advantage.

Limitations/ Future Research

This study has several limitations and it is relevant to highlight first of all that the findings are specific to the time studied, namely the ever-changing world and market competitiveness. Therefore, should not be generalized since different time frames may possibly lead to different conclusions in what regards the inclusion of these specific three concepts rather than others.

Besides, the present model is only able to support managers to better assess their firms' competitive resources and capabilities in order to provide guidance in choosing the appropriate corporate, business, and functional level strategies.

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