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Organizational culture and financial performance: evidence in companies listed in the Brazil Index 100

Cultura organizativa y desempeño financiero: evidencia en empresas listadas en el Índice de Brasil 100

Cultura organizacional e desempenho financeiro: evidências em empresas listadas no Índice Brasil 100

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Abstract

Purpose: The study investigates the relationship between organizational culture and financial performance of companies classified in the IBrX 100.

Methodology: The organizational culture of 83 companies were analyzed through textual analysis, based on the cultural typologies developed by Cameron et al. (2006) and the performance data were taken from Thomson Reuters®.

Results: The results of the multiple linear regression highlight that organizational culture is related in different ways with financial performance. However, not all dimensions of culture had the same relation in promoting performance. The control dimensions and the creative impact financial performance. On the other hand, cultural orientations aimed at competitiveness and collaboration are not related to performance. From this perspective, financial performance incorporates the two main aspects of organizational culture: (i) the permeability of innovative elements and flexibility; and (ii) the conduction of processes through efficiency and operational control.

Study Contributions: The research offers society an explicit mapping of organizational culture typifications, so in the long term this document can serve as strategic information for social institutions to build mechanisms that maximize the informational quality and timeliness of accounting narratives. From a theoretical point of view, the research contributes to fostering discussions about the positionality of accounting narratives with regard to influencing the company's performance and culture.

Keywords: Corporate Culture. Cultural Typologies. Performance. Financial Accounting. Disclosure. Accounting Narratives. Brazilian companies.

Resumem

Objetivo: El estudio investiga la relación entre la cultura organizacional y el desempeño financiero de las empresas que cotizan en el IBrX 100.

Metodología: La cultura organizacional de 83 empresas fue analizada mediante análisis textual, basado en las tipologías culturales desarrolladas por Cameron et al. (2006) y los datos de rendimiento se extrajeron de *Thomson Reuters®*.

Resultados: Los resultados de la regresión lineal múltiple destacan que la cultura organizacional se relaciona de diferentes maneras con el desempeño financiero. Sin embargo, no todas las dimensiones de la cultura tenían la misma relación en la promoción del desempeño. Las dimensiones de control y creatividad impactan en el desempeño financiero. Las pautas culturales para la competitividad y la colaboración no están relacionadas con el desempeño. En esta perspectiva, el desempeño financiero incorpora dos aspectos principales de la cultura organizacional: (i) la permeabilidad de los elementos innovadores y la flexibilidad; y (ii) la conducción de procesos a través de la eficiencia y el control operativo.

Contribuciones del Estudio: La investigación ofrece a la sociedad un mapeo explícito de las tipificaciones de la cultura organizacional, por lo que a largo plazo este documento puede servir como información estratégica para que las instituciones sociales construyan mecanismos que maximicen la calidad y oportunidad informativa de las narrativas contables. Desde un punto de vista teórico, la investigación contribuye a la promoción de discusiones sobre la posicionalidad de las narrativas contables en términos de influir en el desempeño y la altura de la empresa.

Palabras clave: Cultura de la organización. Rendimiento financiero. Empresas cotizadas en Brasil Bolsa Balcão [B] ³. IBrX 100.

Resumo

Objetivo: O estudo investiga a relação entre cultura organizacional e desempenho financeiro de empresas listadas no IBrX 100.

Metodologia: Analisou-se a cultura organizacional de 83 empresas por meio da análise textual, a partir das tipologias culturais desenvolvidas por Cameron et al. (2006) e os dados referentes ao desempenho foram extraídos da *Thomson Reuters®.*

Resultados: Os resultados da regressão linear múltipla destacam que a cultura organizacional se relaciona de diferentes formas com o desempenho financeiro. No entanto, nem todas as dimensões da cultura tiveram a mesma relação na promoção do desempenho. As dimensões de controle e a criativa tem impacto no desempenho financeiro. Já as orientações culturais voltadas para a competitividade e para colaboração não se relacionam com o desempenho. Nessa perspectiva, o desempenho financeiro incorpora dois aspectos principais da cultura organizacional: (i) a permeabilidade de elementos inovadores e de flexibilidade; e (ii) a condução de processos por meio da eficiência e controle operacional.

Contribuições do Estudo: A pesquisa oferece para sociedade um mapeamento explícito das tipificações de cultura organizacional, assim em longo prazo esse documento pode servir de informações estratégicos para as instituições sociais construírem mecanismos que maximizem a qualidade e tempestividade informacional das narrativas contábeis. Do ponto de vista teórico a pesquisa contribui para o fomento das discussões a respeito da posicionalidade das narrativas contábeis no que tange influenciar o desempenho e a cultura da companhia.

Palavras chave: Cultura Empresarial. Tipologias Culturais. *Performance*. Contabilidade Financeira. Evidenciação. Narrativas Contábeis. Empresas Brasileiras.

1. Introduction

From the 1980s onwards, the theme of organizational culture started to be discussed in a more incisive way after researches and conferences on the subject were performed more frequently, promoted through incentives such as special editions of the Administrative Science Quarterly and Organizational Dynamics magazines (Pettigrew, 1979; Freitas, 1991). On the other hand, the topic has also been addressed by major presses and within the organizational scope, which contributes to a greater dissemination of this discussion. Shahzad, Luqman, Khan and Shabbir (2012) infer that understanding the construction of organizational culture is embedded in the elements that constitute organizational effectiveness.

The literature addresses several concepts of organizational culture. However, in this research, emphasis will be given to the concept of Schein (1984) that defines culture as a set of propositions that a certain group learns and takes for itself after being submitted to a certain environment, resulting in an adaptation and internal integration to this environment. This culture guiding adopted in this research understands that it is the result of problems which were resolved in response to the contingencies present in the organization's external and internal environment.

Shahzad et al. (2012) highlights that organizational culture has a profound impact on the variety of processes, employees and organizational performance. On the other hand, based on the studies by Parente, De Luca, Lima and Vasconcelos (2018), it is identified that there is little clarity about the relationship between organizational culture and performance. First, due to the difficulty of measuring a subjective construct as organizational culture, given its distinct natures (Lopes & Beuren, 2018; Shahzad et al., 2012). Second, because there are still few studies (Santos, 1998; Rocha et al, 2013; Parente et al, 2018) that provide detailed information on the relationship that exists between the effects of a culture on organizational performance in the Brazilian context.

To contribute to this scenario, Santos (1998) discusses the impact of culture on the performance of companies in the textile sector. The research was carried out through a questionnaire with employees. The correlation analysis made it possible to identify a positive and significant association between culture and company performance. Santos (1998) makes a provocation when it comes to deciphering the methodological aspects of research involving organizational culture and performance, in such a way that this movement is seen as complementary and not exclusive.

Shahzad et al. (2012) conducted a review survey to understand the definition, conceptualization, and measurement of the link between organizational culture and organizational performance. From the survey, the results illustrate that the studies provided to the scientific community show that there is a positive relationship between culture and improvement in organizational performance, a fact that contributes to and encourages the development of empirical research to understand the nature and power of organizational culture in terms of contributing to the configuration of organizational businesses, and to the company's position in the market in which it operates, in terms of change and continuity.

Rocha et al (2013) discusses the relationship between organizational culture and work environment. To do so, they start from a quantitative survey with 211 employees of industries registered in the Federation of Industries of the State of Rio Grande do Norte. Thus, based on canonical weights, it was possible to identify that there is a positive influence of culture on the work environment of companies. The research by Rocha et al (2013) recommends macro research to be performed to discuss aspects related to culture and work environment in other dimensions and temporalities.

Parente et al (2018) discusses the aspect related to organizational culture and the performance of companies, based on the textual analysis of the 20-F form of 141 companies, in the period from 2009 to 2014. Based on the Resource-Based View, the authors infer that organizational culture has the ability to change the performance of companies. These results are eye-catching and open spaces for discussion of the possibility of understanding organizational culture from other reports available in other nations.

Given the background regarding organizational culture and performance, it is noted that the challenge is to operationalize such constructs and address them in different realities (Rocha et al, 2013; Parente et al, 2018), which also includes the adoption of techniques that may be complementary (Santos, 1998). Thus, among the existing typologies to measure organizational culture, Cameron, Quinn, Degraff and Thakor (2006) stand out, known as Competing Values Framework (CVF), which divides organizational culture into creative, control, collaborative and competitive. Thus, these elements range from formal and informal norms of an organization, pre-established tasks, internal behavior of employees and expressions understood by only those employees who are part of the company (Santos et al, 2014).

The performance of organizations, on the other hand, can be identified in different ways, which include aspects related to financial issues, such as return on assets, and even non-financial issues, such as customer and supplier satisfaction (Oyadomari, 2008). These indicators seek to verify the continued capacity of companies to generate wealth not only in the financial area, but also in the environmental, intellectual and social areas (Svendsen, 1998).

It is known that companies increasingly seek better profits and higher performances, and based on that, they draw goals and plans in order to achieve profit maximization in their operations and thus develop more and more, compared to competitors.

Linked to this relentless desire to obtain results and better performance, it can be seen that this achievement is related to an organizational positioning, and the culture that inhabits organizations (Parente et al., 2018), which is sometimes exposed in the actions of the employees (Shahzad et al., 2012) and in the narratives constructed by the company's managers and made available to users of accounting information (Parente et al., 2018).

Thus, seeing that there is a field that demands answers regarding the relationship of cultural elements with the financial performance of organizations in the Brazilian field, we propose to answer the following guiding question: **What is the relationship between organizational culture and financial performance of companies listed in the Index Brazil**

100 (IBrX 100)? Thus, the objective of the research is to verify the relationship between organizational culture and financial performance of companies listed on the Brazil 100 Index (IBrX 100).

This research is important in the sense of identifying an existing relationship between organizational culture and performance linked to companies listed in [B] [3], as this contributes to other findings on the subject (Ogbonna & Harris, 2000; Tseng, 2010; Han , 2012; Shahzad et al., 2012; Santos, et al., 2014; Acar & Acar, 2014; Parente et al., 2018) in which it intends to study and, in a way, will help guide how associations on internal culture of a company reflects on its performance, that is, it will be possible to notice the permeability of the organizational culture in providing adequacy of performance measures.

The study on organizational culture and performance of classified companies is relevant in order to offer society a possibility to understand what values, beliefs and visions companies transmit through their actions disclosed in accounting reports, since organizations are represented by people who carry an organizational culture in the development of their business relationships.

In addition, the study offers society an explicit mapping of the typifications of organizational culture, so in the long term, this document can serve as strategic information for social institutions that build mechanisms that maximize the quality and informational timeliness of accounting narratives. In essence, the recognition of organizational culture through reporting is presented as a contemporary approach, which is already shown to be satisfactory in US companies (Parente et al., 2018), and thus being able to affect decision-making and the improvement of accountability with the financiers of the operational activity.

Another point that encourages the development of this research is the fact of the need for constant vigilance in relation to the organization's culture (Shahzad et al., 2012). Research has already stated that accounting narratives have content that sometimes will benefit the company, thus creating situations that do not reveal its real economic and financial situation (Kos, Espejo & Raifur, 2014). Therefore, an approximation of accounting narratives can contribute to short and long-term gains, in the sense of understanding part of the multiple relationships of the economic-financial situational process through organizational culture.

Thus, from a theoretical point of view, the research contributes to fostering discussions regarding the positionality of accounting narratives with regard to influencing the company's performance, which increases the discussions already arranged and contributes to providing further explanations of the narratives provided and of the performances ranked by the companies.

In terms of the technique chosen for conducting the research, it comprises the combination of qualitative elements, as the research provides the configuration of the informational field regarding the organizational culture of companies, which is perceived through accounting narratives and quantitative elements, since it uses a multiple linear regression model to explain the relationship between organizational culture and financial performance of companies listed on the IBrX 100. Thus, with this combination of quali-quantitative elements, it contributes to the improvement and encouragement of the use of this modality of scientific methodology for conducting studies in disclosure. An area that has received high attention in the disciplinary accounting field.

It is also worth noting that the research has elements capable of contributing to the university in terms of fulfilling its social role in promoting science and technology. In addition, the research achieves its contributions by opening new investigations for the research group, to which the authors are linked, mainly in terms of methodological and theoretical innovation of the investigations to be produced and disseminated in the academic and professional milieu.

Finally, for Accounting and Finance, this research enables the advancement of knowledge about the relationship between organizational culture and financial performance of companies. That said, the relevance of this discussion for the development of this disciplinary field is proclaimed, in terms of methods, techniques and convertibility of scientific knowledge to social practice.

2 Theoretical Framework and Development of Hypotheses

2.1 Competing Values Framework

Culture represents a strategic resource and a competitive advantage (Schein, 1984; Fleury & Fischer, 1989). For Fleury and Fischer (1989), organizational culture is conceived as a set of values and basic assumptions, presented in symbolic elements, which in turn have the ability to order, build organizational identity, attribute meanings and act as a communication element and consensus on how to hide and instrumentalize power relations.

Culture, by definition, is elusive, intangible, and taken for granted, but every organization develops a core set of assumptions, understandings, and implicit rules that govern everyday behavior in the workplace (Deal & Kennedy, 1983). Once this is understood, it is assumed that each organization, according to its set of assumptions, will present different cultures and that, at times, it presents itself aligned with organizational objectives.

From this perspective, Robert Quinn, in the 1980s, developed a framework which analyzes the contradictions and paradoxes of managing organizational culture known as Competing Values Framework (Lindquist & Marcy, 2014). The development of the Framework had the participation of other faculty members at the University of Michigan (USA). It has been found to be a very useful model for organizing and understanding a wide variety of organizational and individual phenomena (Cameron et al., 2006).

Due to the complexity of defining organizational culture, several studies in the academic area have addressed the topic and its impacts on organizations. Thus, in 2006, Kim Cameron and Robert Quinn (2006) adapted the Competing Values Framework as an instrument to align the dimensions of the Organizational Effectiveness Theory. Cameron and Quinn (2006) claim that the framework's consistency is one of its greatest strengths. The fact is that this instrument was identified as one of the 40 most important frameworks in the history of business, arising from research aimed at understanding which criteria organizations tend to function more effectively. In Figure 1, the Competing Values Framework is presented.

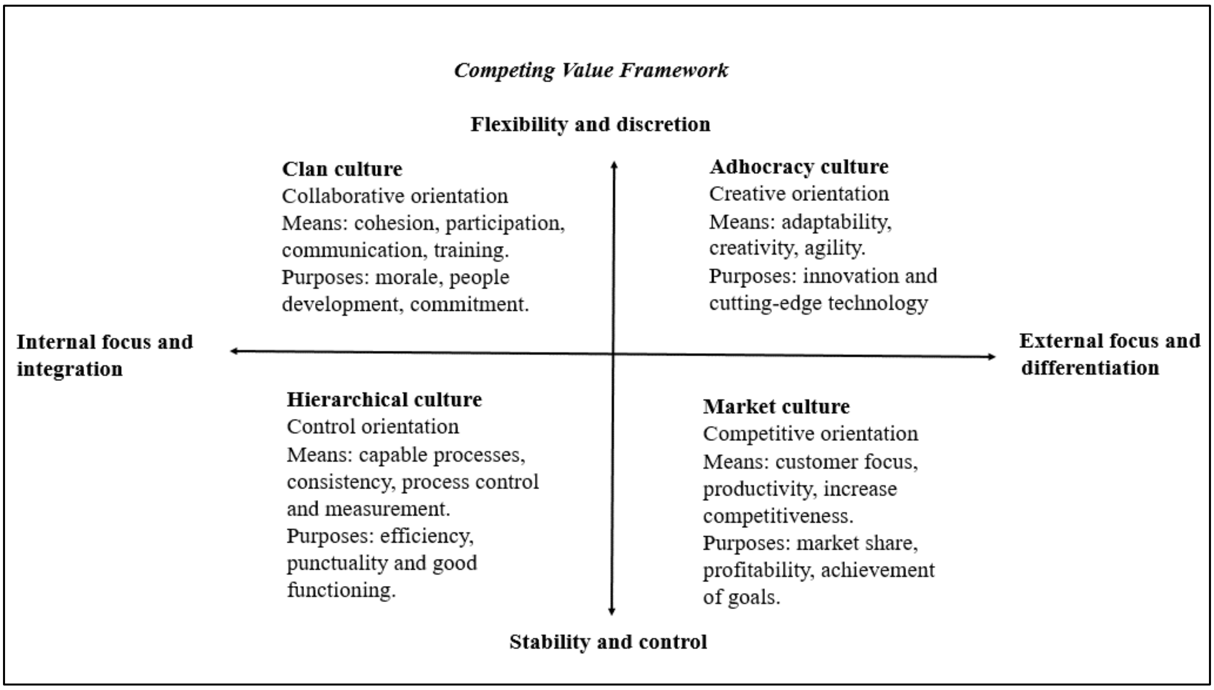

Figure 1 *Competing Value Framework.*
Source: *adapted from Cameron et al. (2006).*

As shown in Figure 1, Cameron et al. (2006) present four types of culture, namely: a) clan or collaborative culture: it can be compared to a pleasant family structure in which there is collaboration and exchange of information and consensus; b) innovative or creative culture: focuses on creativity and innovation, always searching for new knowledge, for the continuous improvement of products and services. It has visionary and dynamic leaders; c) hierarchical or controlling culture: the formal values that guide the organization are managed by conservative leaders who manage the organization through bureaucratic rules. This aspect extends to employees, as it is believed that employees are guided by this vision considering the idea of job stability; and d) market or competitive culture: the focus is on results, it values competition, its leaders are demanding and achieving the goals is a definition of success. Based on these dimensions, it can be seen that culture is a multifaceted construct and that it manifests itself in a plural form, depending on the analyzed context. This fact presents itself as an opportunity for investigations in a developing context.

2.2 Business Performance

For Ribeiro et al. (2017, p. 8), organizational performance is a multifaceted phenomenon in organizational terms. Thus, understanding it requires analysts to transcend the simplistic issues of a company and list aspects that may present themselves as challenging for the actors present in this game arena. This challenge is embodied in recognizing the organizational need and even of information users themselves, as it becomes necessary for organizational actors to choose which measures, whether operational or financial (Venkatraman & Ramanujam, 1987), respond better to the organization's demand and different stakeholders.

Thus, the basis for the performance study is the representation of the company's financial and economic position. Such indicators can be observed from organizational growth and/or profitability (Venkatraman & Ramanujam, 1987). Growth represents the increase in organizational capacity, which can range from market share, the volume of productive capacity to personnel capacity. In this matter, the performance measures that best reflect the organization's growth can be operationalized by observing the increase in sales, increase in earnings per share, increase in dividends per share, among other indicators (Krauter, 2009; Lopes, Gasparetto, Schnorrenberger & Lunkes, 2017).

On the other hand, the performance measures based on organizational profitability draw the attention of managers and users of financial accounting information. In this matter, the interests of shareholders are to identify whether their expectations regarding the investments made in the organization prove to be satisfactory. The metrics that show profitability are diffused between return on equity (ROE), return on assets (ROA) and return on investment (ROI) (Krauter, 2009; Lopes et al, 2017). These performance measures are the most popular metrics in the literature when it comes to discussing the financial performance of organizations and seeking explanations for it (Venkatraman & Ramanujan, 1987; Acar & Acar, 2014).

2.3 Relationship between Organizational Culture and Financial Performance

A company can be seen as a set of activities that are divided into different groups. As the interaction of groups increases, the process is more efficient and, consequently, performance is higher (Hall, 2004). By adopting a procedure of greater interaction between groups, an organizational culture is also adopted. Thus, as man’s associative expression, the company develops its own set of principles, beliefs and values, resulting from the interaction between people (Deal & Kennedy, 1983) and, consequently, the result of this interaction is glimpsed in the organizational results. Thus, studies on organizational culture and financial performance have their antecedents, as shown in Figure 2.

Author(s)	**Sample and [type of performance]**	**Model**	**Association identified (sign in parentheses)**	**Main results**	**Did it use the Competing Value Framework?**
Ogbonna e Harris (2000)	322 UK publicly traded companies, [profitability]	Regression moderated by organizational leadership	(+) competitive; (+) innovative (others not significant)	Positive relationship with performance, however, a greater difficulty in managing the organizational culture is identified.	Yes
Tseng (2010)	131 Taiwan publicly traded companies [financial,	Correlation, comparing with knowledge conversion	(+) creative (others not significant)	Adhocracy culture improves the development of knowledge conversion;	Yes

	market and process]			hierarchical culture exerts greater stability and control.	
Han (2012)	99 hotels in South Korea [return on investment]	Regression mediated by strategic orientation	(+) collaborative; (+) creative; (-) control; insignificant competitive	Collaborative culture directly affects financial performance.	Yes
Acar e Acar (2014)	99 public and private hospitals in Turkey, [financial and service performance]	Regression mediated by company size and age	(+) collaborative; (+) creative; (+) control; (+) competitive	A culture of stability, order and control prevailed over cultures of flexibility, discretion and dynamism.	Yes

Figure 2 *Previous Studies.*
Source: *Adapted from Parente et al. (2018, p. 7).*

Therefore, the study by Han (2012) sought to analyze which types of corporate culture and strategic orientation contribute to improving financial performance. To this end, they conducted a survey with hotels in South Korea. The results illustrate that the collaborative culture directly affects financial performance. It is noted that the collaborative culture, through its embedded characteristics in a pleasant and family-oriented environment, contributes to the development of cohesive behaviors that drive the performance of employees in order to achieve desirable goals for the organization, regarding the achievement of above-average returns (Shahzad et al., 2012).

Acar and Acar (2014) identified the types of organizational culture of private and public hospitals in Turkey. The results showed that the collaborative culture influences the performance perceived by employees. However, they did not identify the influence of the collaborative culture on the performance of services provided and on financial performance, similar to the research by Tseng (2010). In this sense, in the presence of a collaborative culture, in which companies value the participation of employees and encourage teamwork, its characteristics are capable of affecting performance (Parente et al., 2018). Thus, in the first research hypothesis, it is argued that: H1: The collaborative organizational culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B][3] belonging to the IBrX 100.

In addition to collaborative culture, creative culture (Adhocracy) can affect the performance of organizations (Acar & Acar, 2014; Teseng, 2010). In this sense, the study by Ogbonna and Harris (2000) identified that creative culture influences the performance of UK industries. This result presents positive gains for the organization regarding (i) organizational revitalization and innovation (Santos, 1998) and (ii) commitment on the part of employees (Fonseca & Batos, 2003).

Tseng's (2010) study, made with the largest Taiwanese corporations compiled by the *China Credit Information Service* (2006), identified that cultural differences in an organization significantly affected the conversion of knowledge. Thus, understanding knowledge as a source of competitive advantage and performance, it is inferred that corporate performance is affected by creative culture, as the organization must cultivate an environment that provides opportunities to communicate ideas, knowledge and experiences.

Acar and Acar (2014) identified that creative culture influences the financial performance of hospitals. Thus, the assumptions surrounding this typology of culture, permeated by change and flexibility, lead employees to act to obtain better financial gains. On the other hand, Parente et al. (2018), identified that creative culture has no effect on the financial performance of US companies. Depending on the organization's strategic objective, the creative culture leads the employee to take more risks and leads him to obtain resources and external support regarding the development of tasks (Santos, 1998). Thus, the second research hypothesis is declared: H2: The creative organizational culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³ belonging to the IBrX 100.

Another dimension of culture that deserves attention from researchers is competitive culture. This, on the other hand, has the ability to interfere in the company's performance to establish strategies and competitive advantages. The study by Ogbonna and Harris (2000) points out that competitive cultures have direct, strong and positive associations with performance. It is noteworthy that this typology is sensitive to external conditions, that is, the permeability of conditions present in the external environment regarding economic, financial, social, political and technological aspects are absorbed by this cultural typology and certainly positively impact performance.

Thus, empirical evidence indicates that competitive culture positively affects organizational performance (Acar & Acar, 2014). To understand the performance in this research, the authors segregate performance into perceived, services and financial. The findings by Parente et al. (2018), reveal that competitive culture has no impact on the financial performance of the analyzed companies. The competitive culture is intertwined with responding to contingent demands external to the organization (Ogbonna & Harris, 2000). Thus, the orientation towards profit, goals and aspects related to productivity emphasize values aligned with a competitive culture, as a response to changes in the market environment (Santos, 1998). Thus, the third research hypothesis is declared: H3: Competitive culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³ belonging to the IBrX 100.

Finally, the last dimension of interest to this research and advocated by Cameron et al. (2006) is the control culture. Tseng's (2010) study points out that a culture of control, with an emphasis on stability and control, is more likely to result in resistance to change and less interactions with the external environment. This fact can harm the organizational continuity process, as the organization is not willing to consider external elements in the development of its strategic, tactical and operational activities.

Acar and Acar (2014) show that the organizational culture focused on control tends to impact the organization's perception of performance, if observed in the financial and service dimensions and perceived by employees, since order and control are predominantly aligned in obtaining of more advantageous positions compared to organizations with a greater focus on flexibility, discretion and dynamism (Acar & Acar, 2014).

The study by Parente et al. (2018) pointed out that the culture of control can negatively affect the performance of companies. The achievement of pre-established results in environments of high organizational, political and social uncertainty, as the Brazilian economy is involved, since mid-2013, leads organizations to frustration and wrong decisions, as excessive control directs leaders only to demand productivity, thus neglecting other processes that can contribute to the organization's performance, creating a scenario of organizational rigidity (Santos, 1998). Thus, the fourth research hypothesis is declared: H4: The organizational culture of control negatively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³ belonging to the IBrX 100.

Each variable contained in the hypotheses is presented in a plural form, that is, conceptually encompasses a diversity of attributes at the organizational level and also in the field of investigation, in which this research focuses. In Figure 3, the research framework is presented.

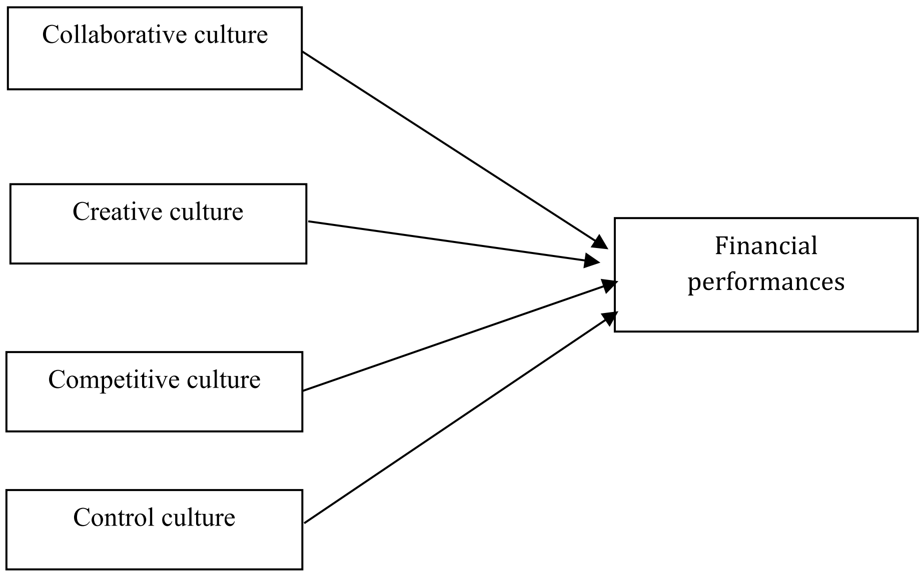

Figure 3 *Research Framework.*
Source: *Research Data.*

In Figure 3, the research hypotheses are summarized. All types of cultures listed have an effect on financial performance, but their characteristics are not the same. The types of culture, whether collaborative, creative and competitive when practiced by a company, are believed to generate positive effects on the financial performance of the business, thus, there are H1, H2 and H3, respectively. An exception is H4, corresponding to the type of control culture, as based on the empirical theoretical background, that has a negative effect. The general conclusion of this debate is that organizational culture permeates the environment of organizations and lead them to desired results if their characteristics are observed, regarding the conduction of employee behavior within organizational processes.

3 Methodological Procedures

3.1 Research Design

This research has a descriptive character, since, according to Cervo and Bervian (1983, p.55) "descriptive research observes, registers, analyzes and correlates facts or phenomena (variables) without manipulating them". In this sense, the research aims to describe the relationship between the organizational culture adopted by companies and evidenced by them and financial performance. As for the data collection procedures, the research is of a documentary nature, since the data collection was performed through the Reference Form (FR) and from the financial and performance data available in the Thomson Reuters database ®.

Finally, the approach given to the research problem is of a quantitative nature. Martins and Theóphilo (2009, p. 107) describe that quantitative research "involves data collection, classification, summarization, organization, analysis and interpretation". Subsequently, the researcher can "treat the data through the application of statistical methods and techniques", proceeding with the analysis and interpretation of the data.

Based on this proposed design, the research has two concerns. The first is to establish a level of disclosure of the organizational culture narrated by the selected companies in their respective reports. Thus, we opt for the typifications of culture operationalized by Fiordelisi and Ricci (2014). With the level of organizational culture available and calculated by company, economic-financial variables are used so that it becomes possible to equate, from the multiple linear regression technique, the relationship between organizational culture and financial performance of companies listed on the IBrX 100.

3.2 Population and Sample

The research population comprises all companies listed on the Brazil Bolsa Balcão [B]³ that are listed in the IBrX100 on April 16, 2019. The IBrX 100 is the result of an asset portfolio, created with the objective of being the performance indicator average of the quotations of the 100 most tradable and representative assets in the Brazilian stock market on the Brazil Bolsa Balcão [B]³ (Brazil Bolsa Balcão [B]³, 2018). For the composition of the sample, the 100 companies listed in the IBrX100 are taken as a starting point. Thus, it was excluded from the sample 02 companies that did not publish the Reference Form in 2018, 02 companies that did not have accounting information in the Thomson Reuters® database and other 13 companies in the financial segment to isolate the effects of their operating characteristics in relation to the rest of the sample. Thus, the final sample consisted of 83 companies.

3.3 Study Variables

3.3.1 Organizational Culture

Organizational culture variables were discussed from the organizational culture dimensions investigated in the Competing Value Framework (Cameron et al., 2006). A textual analysis was performed in the Reference Forms (RF) of the companies to characterize the cultural typology of each one according to the four dimensions proposed by Cameron et al (2006). The analysis technique used to estimate the cultural typology of each company is proposed by Fiordelisi and Ricci (2014). The four types of organizational culture were quantitatively calculated for each company, using percentages to measure cultural emphasis. A given set of radicals represents aspects related to each cultural typology, as exemplified in Figure 4.

Type of Culture	Radicals
Collaborative	boss, burocr, cautio, cohes, certain, chief, collab, conservat, cooperat, detail, document, efficien, error, fail, help, human, inform, logic, method, outcom, partner, people, predictab, relation, qualit, regular, solv, share, standard, team, teamwork, train, uniform, work group.
Creative	adapt, begin, chang, creat, discontin, dream, elabor, entrepre, envis, experim, fantas, freedom, futur, idea, init, innovat, intellec, learn, new, origin, pioneer, predict, radic, risk, start, thought, trend, unafra, ventur, vision.

Competitive	achiev, acqui, aggress, agreem, attack, budget, challeng, charg, client, compet, customer, deliver, direct, driv, excellen, expand, fast, goal, growth, hard, invest, market, mov, outsourc, performanc, position, pressur, profit, rapid, reputation, result, revenue, satisf, scan, succes, signal, speed, strong, superior, target, win.
Control	capab, collectiv, commit, competenc, conflict, consens, control, coordin, cultur, decentr, employ, empower, engag, expectat, facilitator, hir, interpers, involv, life, long-term, loyal, mentor, monit, mutual, norm, parent, partic, procedur, productiv, retain, reten, skill, social,tension, value.

Figure 4 *Radicals associated with each type of culture (in English).*
Source: *Adapted from Fiordelisi and Ricci (2014).*

As can be seen in Figure 4, there are several radicals associated with each culture. It is noticed that the collaborative culture has radicals that express teamwork; in the creative culture that express innovation; in the competitive culture, strategic; and in the control culture, hierarchy. The radicals presented by Fiordelisi and Ricci (2014) are in English. Therefore, as this research envisages the analysis of reports edited in Portuguese, it was necessary to submit the radicals to a sworn translation, as shown in Figure 5.

Types of culture	**Radicals**
Collaborative	chefe, burocr, cuid, coesiv, específico, líder, colabor, conserv, cooperat, detalh, document, eficien, erro, falha, ajud, human, inform, logic, metod, result, sócio(a)/socie, pessoas, previsiv, relacionamento, qualidad, normal, resolv, participação, padrão/padron, equipe, trabalho em equipe, treinamento, uniform, trabalho em grupo.
Creative	adapt, começ, mudança, cria, descont, sonh, elabor, empreend, vision, experiment, fantas, liberdade, futuro, idea, inici, inova, intelect, aprend, novo, orig, explorar, prever, radical, risco, iniciar, pensamento, tendência, destem, empreendimento, visão.
Competitive	ating, adquirir, agress, acord, ataque, orçamento, desafio, cobrança, cliente, compet, freguês, entreg, direcion, dirig, excelen, expand, agil, meta, crescimento, dific, invest, mercado, mov, terceiriz, desempenh, posic, press, lucr, rápido, reputação, result, receita, satisf, analisar, sucesso, sinal, acelerar, forte, superior, vencer.
Control	capaz, coletiv, comprom, competen, conflit, consens, control, coordena, cult, descentraliz, empreg, obrig, expectat, facilitador, contrat, interpessoal, envolv, vida, longo prazo, leal, mentor, monit, recíproco, norma, cuida, particip, procedimento, produtiv, reter, retenção, habilidade, social, tensão, precificar

Figure 5 *Radicals associated with each type of culture (in Portuguese).*
Source: *Adapted from Fiordelisi and Ricci (2014).*

3.3.2 Financial Performance and Control Variables.

Figure 6 shows the variables related to financial performance and the control variables of the Brazilian companies in the research sample.

Variables	**Proxy**	**Reference**

Dependent	ROA	$\frac{Net\ profit}{Total\ Assets}$	Parente et al (2018)
Control	Tam: Size	Asset natural log	
	EG: General Indebtedness Index	$\frac{Current\ Liabilities + Non - Current\ Liabilitie}{Total\ Assets}$	

Figure 6 *Dependent and Control Variables used in the study.*
Source: *Research Data.*

As shown in Figure 6, it is identified that in terms of performance evaluation, the Return on Assets (ROA) will be used, obtained by the ratio of Net Income over Total Assets. Gonçalves and Quintela (2006) state that Return On Assets (ROA) has been one of the most used accounting instruments in studies on strategy. ROA measures the relationship between assets and total profits (Iudícibus & Marion, 2011). As for the control variables that will be used in the regression analysis, they will be: the size obtained by the Natural Logarithm of Assets, the General Indebtedness Index obtained by the ratio between the sum of Current Liabilities plus Non-Current Liabilities over Total Assets. It is noteworthy that the choice of variables to explain the financial performance of companies based on culture is supported by the recommendations of Parente et al (2018).

3.4 Data Collection and Analysis

The survey was conducted exclusively with companies listed on the Brazil Bolsa Balcão [B][3], and which necessarily have published the Reference Form (RF) in 2018. This period was chosen because, as stated by Freitas (1991, p.81) " there is no consensus among researchers that culture can change. Even those who defend the condition of change assume that the process is not simple", therefore, it is assumed that organizational culture does not change easily from one year to the next. Thus, with this time frame, the relationship between the organizational culture adopted by companies and the performance in the last period of recession in the Brazilian economy can be evaluated.

The Reference Form is an electronic document with mandatory annual submission, as provided for in art. 24 of Normative Instruction No. 480/2009 of CVM. This annual report contains information about policies, governance practices, activities, economic and financial data, control structure, risk factors, among other information disclosed by the company (CVM, 2009). In this sense, it is a document containing information for investors.

Therefore, data collection was performed through a document search in the statements contained in the Reference Form of the companies listed in the IBrX100 of Brazil Bolsa Balcão [B³]. To identify the cultural typologies, the technique suggested by Fiordelise and Ricci (2014) consists of assigning synonyms to each typology by identifying radicals that identify them with the approach of each culture. (Fiordelise & Ricci, 2014).

Thus, for each of the companies listed in the research sample, the four types of organizational culture were calculated based on the number of occurrences of the radicals evidenced in each Reference Form. In this context, organizational culture represents the ratio between the total number of radicals found for each culture and the total number of radicals found in the files in which they were analyzed. This way of measuring organizational culture proved to be satisfactory in the study by Parente et al. (2018).

After data collection, classification and tabulation of data in Microsoft Office Excel® software was performed. The data analysis technique used was multiple linear regression, according to Equations.

$$ROA_i = \alpha + \beta_1 CCollaborative_i + \beta_2 Tam_i + \beta_3 EG_i + \varepsilon_l \quad (1)$$
$$ROA_i = \alpha + \beta_1 CCreative_i + \beta_2 Tam_i + \beta_3 EG_i + \varepsilon_l \quad (2)$$
$$ROA_i = \alpha + \beta_1 CCompetitive_i + \beta_2 Tam_i + \beta_3 EG_i + \varepsilon_l \quad (3)$$
$$ROA_i = \alpha + \beta_1 CControl_i + \beta_2 Tam_i + \beta_3 EG_i + \varepsilon_l \quad (4)$$

Where: ROA = Represents the Company's Financial Performance; CCollaborative = Collaborative Culture; CCreative = Creative Culture; CCompetitive = Competitive Culture; CControl e= Control Culture; Tam = Company Size; EG = Total Indebtedness; and ε = Multiple Regression Error.

4 Analysis of Results

4.1 Descriptive Analysis

The first results obtained in the research are presented in Table 1, in which the distribution of organizational culture typologies is observed in detail.

Table 1

Proportion of organizational culture for each company in the sample

ID	Companies	Control	Competitive	Collaborative	Creative	Predominant Culture
1	AMBEV S/A	34,9%	35,0%	18,4%	11,7%	Hybrid culture
2	AZUL	35,3%	36,0%	16,0%	12,7%	Hybrid culture
3	MINERVA	35,8%	34,7%	18,9%	10,6%	Hybrid culture
4	BRADESPAR	32,6%	32,4%	25,6%	9,4%	Hybrid culture
5	PETROBRAS BR	38,0%	33,3%	17,0%	11,8%	Hybrid culture
6	BRF AS	33,7%	33,3%	20,2%	12,8%	Hybrid culture
7	BRASKEM	36,6%	31,8%	21,9%	9,7%	Hybrid culture
8	BR MALLS PAR	36,2%	28,8%	20,3%	14,8%	Hybrid culture
9	B2W DIGITAL	36,2%	34,4%	19,3%	10,2%	Hybrid culture
10	CCR AS	41,1%	32,0%	17,9%	9,1%	Hybrid culture
11	CESP	41,0%	27,9%	17,3%	13,9%	Hybrid culture
12	CIELO	38,4%	28,9%	23,4%	9,3%	Hybrid culture
13	CEMIG	38,7%	30,5%	19,2%	11,5%	Hybrid culture
14	COPEL	36,9%	29,8%	17,6%	15,7%	Hybrid culture
15	COSAN	41,2%	32,7%	16,7%	9,3%	Hybrid culture
16	COPASA	36,8%	32,5%	18,8%	12,0%	Hybrid culture
17	SID NACIONAL	39,5%	31,6%	19,7%	9,1%	Hybrid culture
18	CVC BRASIL	35,2%	35,0%	14,9%	14,8%	Hybrid culture
19	CYRELA REALT	27,6%	23,6%	18,2%	30,6%	Creative
20	DURATEX	33,9%	34,4%	21,2%	10,6%	Hybrid culture
21	ECORODOVIAS	41,9%	30,9%	17,6%	9,7%	Control
22	ELETROBRAS	37,0%	30,1%	19,0%	13,9%	Control
23	EMBRAER	32,8%	36,5%	16,5%	14,2%	Hybrid culture
24	ENERGIAS BR	38,8%	32,4%	15,7%	13,1%	Hybrid culture
25	ENERGISA	39,8%	34,4%	13,9%	11,8%	Hybrid culture
26	EQUATORIAL	43,6%	30,5%	15,0%	10,9%	Control

27	EZTEC	32,0%	32,7%	16,6%	18,7%	Hybrid culture
28	FLEURY	35,9%	31,3%	20,2%	12,7%	Control
29	GAFISA	29,8%	28,5%	17,3%	24,4%	Hybrid culture
30	GERDAU	34,7%	36,4%	18,6%	10,3%	Hybrid culture
31	INTERMEDICA	39,2%	33,4%	16,5%	10,8%	Control
32	GERDAU MET	37,0%	36,4%	15,5%	11,1%	Hybrid culture
33	GOL	36,3%	38,1%	15,9%	9,6%	Hybrid culture
34	HAPVIDA	37,2%	30,8%	20,0%	12,1%	Control
35	CIA HERING	33,3%	38,8%	16,1%	11,7%	Competitive
36	HYPERA	35,3%	36,1%	16,6%	12,1%	Hybrid culture
37	IGUATEMI	36,4%	32,0%	15,6%	16,0%	Control
38	IRBBRASIL RE	30,8%	36,4%	18,5%	14,3%	Hybrid culture
39	JBS	34,2%	32,1%	17,2%	16,5%	Control
40	KLABIN S/A	35,6%	35,6%	17,0%	11,7%	Hybrid culture
41	KROTON	32,3%	36,8%	19,2%	11,7%	Competitive
42	LOJAS AMERIC	35,7%	37,3%	16,2%	10,8%	Competitive
43	LIGHT S/A	39,3%	31,0%	18,1%	11,6%	Control
44	LINX	34,7%	33,8%	21,4%	10,2%	Hybrid culture
45	LOG COM PROP	35,3%	32,7%	18,6%	13,4%	Control
46	LOJAS RENNER	34,4%	34,4%	20,4%	10,9%	Hybrid culture
47	M.DIASBRANCO	33,8%	34,1%	18,7%	13,5%	Hybrid culture
48	MAGAZ LUIZA	36,1%	33,7%	18,4%	11,8%	Control
49	MARFRIG	33,1%	34,8%	18,7%	13,4%	Hybrid culture
50	MRV	30,6%	33,0%	21,5%	15,0%	Hybrid culture
51	MULTIPLAN	34,9%	29,3%	18,5%	17,4%	Control
52	IOCHP-MAXION	36,0%	35,9%	17,3%	10,8%	Hybrid culture
53	NATURA	34,6%	29,8%	23,3%	12,4%	Control
54	ODONTOPREV	39,1%	30,8%	21,2%	8,9%	Control
55	P.ACUCAR-CBD	38,9%	32,1%	19,3%	9,8%	Control
56	PETROBRAS	43,1%	28,2%	18,3%	10,4%	Control
57	MARCOPOLO	36,4%	32,1%	20,4%	11,1%	Control
58	QUALICORP	38,5%	32,8%	19,1%	9,6%	Control
59	RAIADROGASIL	34,7%	32,4%	21,8%	11,1%	Control
60	RUMO S.A.	41,4%	32,3%	16,3%	10,1%	Control
61	RANDON PART	37,7%	35,3%	17,9%	9,1%	Control
62	LOCALIZA	32,7%	36,9%	19,1%	11,3%	Competitive
63	SANEPAR	37,2%	28,5%	19,1%	15,3%	Control
64	SABESP	35,7%	34,9%	15,7%	13,6%	Hybrid culture
65	SER EDUCA	28,0%	37,4%	18,9%	15,7%	Competitive
66	SLC AGRICOLA	36,5%	29,0%	17,4%	17,1%	Control
67	SMILES	37,7%	33,4%	19,3%	9,6%	Control
68	SAO MARTINHO	34,9%	29,8%	26,0%	9,2%	Control
69	SUZANO S.A.	34,2%	36,0%	15,9%	13,8%	Hybrid culture
70	TAESA	39,7%	29,4%	19,1%	11,8%	Control
71	TENDA	42,5%	29,7%	14,8%	13,0%	Control
72	AES TIETE E	41,1%	29,1%	19,1%	10,8%	Control
73	TIM PART S/A	35,8%	36,9%	16,4%	11,0%	Hybrid culture
74	TOTVS	33,9%	34,9%	19,1%	12,1%	Competitive
75	TRAN PAULIST	39,2%	30,1%	20,2%	10,5%	Control
76	TUPY	33,0%	38,6%	15,3%	13,2%	Competitive
77	ULTRAPAR	29,9%	37,2%	20,6%	12,3%	Competitive
78	USIMINAS	37,8%	31,6%	18,2%	12,4%	Control
79	VALE	40,8%	28,0%	19,1%	12,1%	Control
80	TELEF BRASIL	34,0%	37,0%	18,3%	10,7%	Competitive
81	VALID	28,2%	39,6%	17,7%	14,4%	Competitive
82	VIAVAREJO	39,3%	32,7%	17,9%	10,1%	Control
83	WEG	37,2%	34,7%	19,4%	8,7%	Control

Source: *Research Data.*

Based on Table 1, it can be seen that in most of the companies analyzed there is a very close percentage distribution between the control and competitive cultures, which are the most prevalent cultures among the analyzed group, showing that most companies do not have only a type of culture strongly evidenced in its Reference Forms, but rather that there is a proportional mix of cultures that align with the organization's perspectives and objectives. Which leads to the observation that these have a hybrid culture.

In addition to this proportional combination of cultural characteristics, among the four types of organizational culture, there is a predominance of the control culture in 68.67% (57) of companies, followed by competitive culture in 30.12% (25) . Creative culture is predominant in only 1.20% of companies (1) and collaborative in 0.00% (0) of companies in the sample. Conversely, it can be observed that in 95.18% (79) of the companies in the sample, the creative culture was the least evident in the investigated reports, among the four types of culture listed as being of interest in this research, followed by the collaborative culture 4 .82% (4).

Recognizing the predominance of cultures focused on control and competitiveness, it is believed that companies listed on the [B]³'s IBRx100 are driven by elements related to an orientation for the control of processes, to provide efficiency, punctuality and the smooth running of the company. There is also a focus on the development of competition through means focused on the customer, productivity, profitability and achieving goals.

4.2 Inferential Analysis

To analyze the association between organizational culture and financial performance of companies listed on the Brazil Bolsa Balcão [B]³ in 2018, Pearson's correlation was used between the assertions that represent each dimension of the organizational culture typologies in the Collaborative, Creative, Competitiveness and Control dimensions and the measure of financial performance listed for the survey, entitled Return on Assets. Thus, in Table 2, the Pearson correlation between organizational cultures and ROA is presented. It is intended that the data present a normal distribution from the Kolmogorov-Smirnov tests, histogram analysis and normal Q-Q plot.

Table 2
Pearson correlation between organizational cultures and ROA

Variables	ROA
Control	0,1683
Competitive	-0,0062
Collaborative	0,1543
Creative	-0,0276*

**. The correlation is significant at the 0.01 level
*. The correlation is significant at the 0.05 level.
Source: *Research Data.*

It appears that only creative culture is associated with Return on Assets (ROA). However, it is not possible to observe only the correlation between two or more variables so that it is possible to make a decision in relation to the hypotheses listed during this investigation. Therefore, the results must be more robust when a multiple linear regression model is chosen, in order to obtain explanatory power in relation to the results and ensure that inferences can be made. Thus, Table 3 presents the main results after processing the four regression models.

Table 3

Results of multiple linear regression models

Variáveis	Model 1		Model 2		Model 3		Model 4	
	Coef. β	Sig.	Coef. β	Sig.	Coef. β	Sig.	Coef. β	Sig.
Constant	0,084	0,474	0,276	0,008	0,083	0,515	0,008	0,940
Collaborative culture	0,194	0,448	-	-	-	-	-	-
Creative culture	-	-	**-0,715**	**0,000**	-	-	-	-
Competitive culture	-	-	-	-	0,101	0,588	-	-
Control culture	-	-	-	-	-	-	**0,499**	**0,003**
General indebtedness	**-0,141**	**0,000**	**-0,156**	**0,000**	**-0,146**	**0,000**	**-0,151**	**0,000**
Size	0,001	0,872	-0,002	0,683	0,001	0,828	-0,002	0,675
R² Adjusted	27,8%		42,1%		27,6%		34,9%	
H1	Rejected		-		-		-	
H2	-		Rejected		-		-	
H3	-		-		Rejected		-	
H4	-		-		-		Rejected	

Source: *Research Data.*

From Table 3, the research hypotheses are analyzed and, consequently, possible decisions are taken. H1 predicts that the collaborative organizational culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³, belonging to the IBrX 100. The nature of this relationship suggests a positive and non-significant effect ($\beta = 0.194$; p-value > 0.05), indicating that the collaborative culture positively impacts the performance of companies, however, this relationship in this research was not significant. Thus, H1 is rejected.

H2 proposes that the creative organizational culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³, belonging to the IBrX 100. The results in Table 3 indicate that the creative culture negatively influences the performance of companies ($\beta = - 0.715$; p-value < 0.05). Thus, H2 is rejected. Thus, the creative culture tends to negatively impact the performance of companies that have greater negotiability and representativeness of the Brazilian stock market.

In H3, it is hypothesized that competitive organizational culture positively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³. For that matter, from Table 3, it can be seen that competitive culture has a positive and non-significant effect on the performance of companies listed on the IBrX 100 ($\beta = 0.101$; p-value > 0.05). Thus, H3 is rejected. Finally, H4 proposes that the organizational culture of control negatively affects the financial performance of companies listed on the Brazil Bolsa Balcão [B]³, belonging to the IBrX 100. Based on the regression coefficient, it is noted that the culture of control exerts a positive and significant effect on the performance of companies ($\beta = 0.499$; p-value < 0.05). In view of the identified result, it is inferred that the control culture positively affects the performance of companies.

4.3 Discussion of Results

The organizational culture, from its constructions embodied in collaborative, creative, competitive and control aspects, has a permeability in the environment of companies listed in [B]³ regarding their impacts on organizational performance that differ from companies listed in Taiwan (Tseng, 2010), in South Correia (Han, 2012), in Turkey (Acar & Acar, 2014) and in the United States (Parente, et al., 2018). It is inferred that the characteristics recommended by each culture and illustrated in the Reference Forms provide guarantees of compliance with the organizational goals and objectives of the analyzed Brazilian companies. This proposition is aligned with the findings of Rocha et al (2013) as they point out that culture contributes to achieving organizational goals and earnings, given that they are immersed in a developing economy environment. The results shown in Table 1 show that there is a predominance of a culture of control and competitiveness among organizations, therefore, they need to present themselves as attractive to the financing of the operational activity, that is, the very actors involved in this process need to glimpse that the company has the cultural capacity to meet their needs.

The configuration of companies listed on the IBrX 100 influences the characterization of dominant organizational cultures, mainly because they are companies that, according to InfoMoney (2021), represent the most traded assets of Brazil Bolsa Balcão (B3), which can be a limiting factor in the process of attracting new investors, as cultural levels of creativity negatively affect the performance of companies. It is possible, therefore, that the characteristics and the way in which these types of culture are exposed in the Reference Form may lead investors to make decisions that are in line with this company culture, as there are indications that these are companies that are willing to run more risks (Cameron & Quinn, 2006) and to expose itself more through innovative processes and creation of products and services that demand market acceptance (Lopes & Beuren, 2016), as this is the risk of adopting a creative culture, since the high volatility of stock trading, considering the group of companies the object of the research.

Acar and Acar (2014) did not identify that the collaborative culture influences the financial performance of public and private hospitals in Turkey, which is aligned with the results of this research. Han (2012) identified that the collaborative culture has an impact on the financial performance of organizations. This ambiguity of results must be viewed with parsimony as the development of an organizational culture is imbricated in a plurality of factors. In this way, managers could be guided by policies that value employees and encourage teamwork (Parente et al., 2018). It is opportune to recall that companies are exposed to constant changes arising from the global environment in which they operate. Therefore, characteristics of the collaborative culture must be inserted in this organizational context of decision-making, which consequently tends to reflect on the financial performance of organizations.

Contrary to the studies of Tseng (2010), Han (2012) and Acar and Acar (2014), this research identified that creative culture has a significant and negative impact on the performance of Brazilian companies belonging to the IBrX 100. Thus, operational processes aimed at innovation and cutting-edge technology (Cameron et al., 2006) narrated by organizations tend to negatively influence the return on assets. Given these findings, it is noted that the creative culture in the environment of companies listed on the IBrX 100 inhibits the development of initiatives aimed at creativity, adaptability and agility, as they tend to negatively influence their financial performance. Furthermore, this negative relationship between creative culture and financial performance does not lead the employee to take more risks and seek external support regarding the development of tasks (Santos, 1998).

It is noted that competitive culture does not impact the performance of companies listed on the IBrX 100. This result is aligned with the research by Han (2012) and Parente et al. (2018) who also found no significant relationship between task-oriented competitive culture and financial performance. On the other hand, this evidence presents itself contrary to the studies by Ogbonna and Harris (2000) and Acar and Acar (2014). Thus, the competitive culture in this investigation does not contribute to the promotion of financial performance.

The control culture is positively related to the performance of the analyzed Brazilian companies. Thus, such results do not corroborate Han (2012) and Parente et al. (2018), since in those investigations, the authors identified that the control culture negatively affects the financial performance of companies listed in South Korea and New York. On the other hand, the findings of this investigation corroborate Acar and Acar (2014) who identified that the control culture contributes positively to the financial performance of companies listed in Turkey. It is inferred from this result that the development of a control culture contributes to the profitability of the assets of the analyzed companies, in relation to revenue generation. This fact contributes to obtaining more advantageous positions (Acar & Acar, 2014) and economic decisions wrapped in control with an emphasis on productivity (Santos, 1998). From the results shown, it appears that the association between organizational culture and financial performance is an issue that deserves theoretical and empirical emphasis, especially in the Brazilian environment, and in this research insights of this association are noted, since for the sample of Brazilian companies, not all cultures have had the same impact on boosting financial performance.

5 Final Considerations

The results showed the predominance of the control culture in published reports, followed by the competitive typology. Regarding the proposed relationship, it was identified that creative culture negatively impacts the performance of companies, while the control culture has a positive and significant effect, revealing that the analyzed companies value management by conservative leaders who manage through bureaucratic rules. From this perspective, financial performance incorporates two main aspects when identified through profitability and revenue generation and aligned with the company's assets: innovative aspects and granting flexibility negatively influence the conduct of processes through aspects related to efficiency; and operational control positively influences the performance of the companies analyzed.

5.1 Theoretical and Practical Implications

This study contributes to the literature that discusses organizational culture and performance (Ogbonna & Harris 2000; Tseng, 2010, Han, 2012; Acar & Acar, 2014; Parente et al., 2018). The results indicate that the creative culture and the control culture influence the financial performance of companies listed on the IBrX 100. In this aspect, the organizational culture, when understood by managers as valuable and imitable, can be a competitive advantage, affecting organizational performance. Furthermore, culture, being indescribable and intangible, in this study had distinct effects on financial performance, which is suggested to be a function of the predominant national culture and the group of companies analyzed.

Given these findings, it is identified that the trading environment of companies listed on the IBrX 100 is involved in showing their users through the Reference Forms the predominance of a control and competitive culture. The control culture enhances the performance of companies. Furthermore, in terms of theoretical contributions, the research validates the Competing Value Framework (Cameron et al., 2006) and the operationalization made by Fiordelisi and Ricci (2014) for companies that are standardized in the Brazilian environment. This validation had already taken place in the US environment, based on the research by Parente et al (2018).

In practical terms, it is signaled to managers and those responsible for the narratives present in the Reference Form that the emphasis to be printed on them, if the company's objective is to increase gains involving returns on assets, must be substantiated in consistent and sustained processes by measuring operational activity, ensuring predictability and organizational stability (Cameron et al., 2006; Parente et al., 2018). Thus, with these results, the opportunity for managers to increasingly seek competitive positions expands, as the cultural elements of this typology of culture show that they have a positive impact on the performance of companies.

5.2 Research Limitation and Opportunities

Some characteristics of the present research must be highlighted, which are presented as limitations. Initially, the group of companies chosen, the IBrX 100, presents itself as a limitation for the results discussed in this investigation, since the higher the level of negotiation between companies, the greater their level of competition tends to be, a fact that is narrated by the analyzed Reference Forms. Thus, as a way to control these particularities of the investigated group of companies, it is suggested to apply the framework by Cameron et al., (2006) to other groups of companies listed in [B]³, with a view to expanding the results of this investigation. Additionally, the addition of variables, such as fiscal aggressiveness, use of government incentives for the development of research and innovation is suggested, as these are particularities that a regressive model can address and provide greater robustness for future results.

The analysis of the Reference Forms is not exempt from the perception and limitations of the present researchers. Thus, there may be criticisms regarding the subjectivity of the documents that influence the representativeness of the analysis, as the information presented is extremely important for organizations, as they are able to influence the decision-making of stakeholders and affect the liquidity of actions, and may, consequently, make some administrators interested in disclosing these reports with increments that may not exist in the factual world, or are still in the process of being implemented. This possibility does not make the documents unverifiable, however, it serves as a warning for researchers to be judicious in obtaining adequate data from these documents, actions that future research can promote and improve.

Finally, the model proposed in regressive terms can present itself as a limitation, as it is a relatively new field in Brazil, when it comes to using accounting narratives to identify the organizational culture and transposing this to the performance aspect. It is recommended, for future research, the construction of new models, with the incursion of new scientifically supported variables, in the form of financial and non-financial control and performance, which can result in advances for this subject.

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