PERCEPTION OF CONFIDENCE IN INDEPENDENT AUDIT: QUALITY INDEX

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ABSTRACT

Independent Auditing represents a complex activity since it involves internal and external factors to the audited as well as the auditor's characteristics. Considering such complexity, this work was carried out with the objective of creating an Audit Quality Index - IQUA 2019. The construction of an index proves to be important so that it is possible to understand the factors that influence the quality of the audit, as well as to obtain a perception of the companies and the years in which the quality was more evident. The composition took place through the assessment of qualitative aspects of the auditor's work and internal and external factors to the auditee, such as: size of the audit firm; audit, represented by the variation in the quality of the service provided between the audit firms; auditor-client relationship time; specialization; audit committee; risk, fees and conservatism. Multiple regression with panel data was used, estimated using the generalized moments method (GMM), justified by the possibility of endogeneity between the variables. The use of GMM is relevant since the difficulty in empirical audit studies is observed in inferring a cause and effect relationship between the variables. The selected variables were significant, which means that the greater the size of the firm, the length of the relationship, the specialization, the financial leverage, the fees and the precaution with which positive news is recorded, in detriment of the bad news, the greater the quality of audit. The fact that the company has a committee was an indication for increasing the quality of the audit.

Keywords: Index. Audit Quality. Conservatism. Accounting Information Quality.

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PERCEPÇÃO DE CONFIANÇA NA AUDITORIA INDEPENDENTE: ÍNDICE DE QUALIDADE

RESUMO

A Auditoria Independente representa uma atividade complexa uma vez que envolve fatores internos e externos à auditada assim como características do auditor. Ao considerar tamanha complexidade este trabalho foi realizado com o objetivo de criar um Índice de Qualidade de Auditoria - IQUA 2019. A construção de um índice mostra-se importante para que seja possível compreender os fatores que influenciam na qualidade da auditoria, assim como obter uma percepção das companhias e dos anos nas quais a qualidade foi mais evidente. A composição aconteceu por meio da apreciação de aspectos qualitativos do trabalho do auditor e fatores internos e externos à auditada, tais como: tamanho da firma de auditoria; auditoria, representada pela variação na qualidade do serviço prestado entre as firmas de auditoria; tempo de relacionamento auditor-cliente; especialização; comitê de auditoria; risco, honorários e conservadorismo. Foi utilizada a regressão múltipla com dados em painel, estimada por meio do método dos momentos generalizado (GMM), justificado pela possibilidade de endogeneidade entre as variáveis. A utilização do GMM mostra-se relevante uma vez observada a dificuldade em estudos empíricos de auditoria em se inferir uma relação de causa e efeito entre as variáveis. As variáveis selecionadas foram significativas, o que representa que quanto maior o tamanho da firma, o tempo de relacionamento, a especialização, a alavancagem financeira, os honorários e a precaução com que notícias positivas são contabilizadas, em detrimento das ruins, maior a qualidade de auditoria. O fato da companhia possuir comitê tratou-se de um indício para o incremento da qualidade da auditoria.

Palavras-Chave: Índice. Qualidade da auditoria. Conservadorism. Qualidade da informação contábil.

1 INTRODUCTION

Agency problems, associated with the separation of ownership and control of companies, along with the asymmetry of information between managers and owners, create the demand for external audits (Lin & Hwang, 2010). It is the responsibility of auditing to monitor and control the activities of a company, thus causing a reduction in agency problems (Jensen & Meckling, 1976). Auditing aims to add value and provide confidence and credibility to the accounting information by issuing a report that legitimately represents the client company's financial situation and assets (Hendrisksen & Van Breda, 1999; Moreira et al., 2015). As a result, providing quality work is very important for the auditor (Moreira et al., 2015).

The intensity of the audit firm's contribution is measured through the audit quality. Such quality is proportional to the auditor's competence and independence (DeAngelo, 1981; Leftwich, Watts & Zimmerman, 1981; Ito, Niyama & Mendes, 2008; Defond & Zhang, 2014), which is translated by the professional's initiative in reporting perceived inconsistencies to the market (DeAngelo, 1981; Francis, 2004; Carlin, Finch & Laili, 2009).

Specific characteristics of companies and their information systems are related to audit quality (DeFond & Zhang, 2014). The characteristics in this work were represented by the proxies "Size" and "Audit" which represent whether the company is a Big Four or not; "Time" which shows the time in years that the audit firm has been providing services to the company; "Specialization" which shows the specialization of an audit firm in a given economic sector; The "Audit Committee" which shows whether the company has an active committee or not; "Risk" represented by the financial leverage of the company; the "Fees" represent the total amount of fees received by the audit firm; and finally, we observe "Conservatism" which is the conservative attitude of the company in accounting for facts that affect profit. These proxies will be better conceptualized and contextualized in the "Research Design" section. In general, companies are afraid of receiving a report with a modified opinion. This fact can be analyzed by users of accounting information as an indication of future insolvency (Hopwood, Mckeown & Mutchler, 1989).

Competence can be evaluated by two perspectives within the audit profession, namely, the profession's reputational capacity to bring in competent individuals who wish to serve as auditors and ongoing education, certifications, examinations, and professional experience (Radebaugh & Gray, 2002). Auditor independence can be observed through the opinion contained in an audit report and by providing audit service in an objective and unbiased manner concerning the interests of the client company. Issuing an erroneous report may lead to problems for the auditor's reputation (Hopwood, Mckeown & Mutchler, 1989; CFC, 2005; Knechel & Vanstraelen, 2007).

To avoid reputation problems, the auditor looks for evidence in the company that could affect the quality of the opinion. The financial leverage, as well as the conservatism in the accounting of facts that affect profit, are examples of evidence perceived by the auditors. A highly leveraged company may cause a more detailed and conservative behavior in the performance of the auditors' work, who will try to exempt themselves as much as possible so as not to be involved in a possible future financial scandal (Arruñada, 1997). On the other hand, conservatism represents higher quality in auditing as it reduces the risk of the auditor and the audit (BASU, 1997).

Thus, the objective of this study was to estimate an audit quality index - IQUA 2019. The index is relevant for companies that pay for the service and, therefore, need to demand quality; for auditing firms and the evolution of the profession through practices that increase and decrease the quality of the work provided; and for the market, since it depends on reliable financial information reported by companies, thus reducing the informational asymmetry between agents.

The importance of independent audit quality can be perceived by the social repercussion caused by the extinction of large companies as a result of corporate scandals (Moreira et al., 2015; Salehi, Moradi & Paydarmanesh, 2017), by the sophistication of capital market operations, and by the need to provide stakeholders, who are increasingly demanding, with relevant information (Ito, Niyama & Mendes, 2008). Users of accounting information need an environment with less informational asymmetry and conflict between agents and more quality of accounting information so that they can make more assertive decisions with reduced risk. Since auditing certifies the accounting information issued by

companies, it increases the quality of this information and reduces the informational asymmetry (Healy & Palepu, 2001).

The verification of financial statements by an external auditor adds credibility to the accounting information of the client company. Thus, an audit service provided with quality can assist users in decision-making (Salehi, Moradi & Paydarmanesh, 2017). Therefore, it is expected that quality audit restricts the management of opportunistic gains (Arcúrio Junior, 2018), as well as reduces the risk that the financial reports will contain relevant distortions and/or omissions (Lin & Hwang, 2010). The verification of the quality of independent auditing is relevant to reduce the conflicts between agents and informational asymmetry and the development of the capital market in Brazil. Therefore, it is a relevant study for managers, investors, auditors, and other users of accounting information. We intend to contribute to filling the gap on the theme of independent audit quality in Brazil and to provide a research tool that can be used in other works.

2 RESEARCH DESIGN

The sample consisted of 26 companies belonging to Ibovespa, between 2010 and 2017. The companies that make up the Bovespa index represent around 80% of the negotiations and financial decision-making of the capital market in Brazil, so it is a good sample (Takamatsu, Lamounier & Colauto, 2008; b3, 2018; Rodrigues, Paulo & Melo, 2018). Companies in the financial sector were excluded. A transition period to the adoption of international accounting standards began in 2008, culminating in their mandatory adoption on 01/01/10. The countries that make up the European Union started to adopt some international accounting standards, based on the International Accounting Standards Board - IASB, in 2005. In Brazil, a transition process took place as of 2008 with the partial adoption of the IFRS, ending in 2010 with the full adoption of the International Financial Reporting Standards - IFRS (Santos, Ponte, and Mapurunga, 2014). Table 1 presents the information about data collection:

Table 1
Information about data collection

Basic test equation variable	Source
IQUA - Braunbeck (2010)	Through research on the website of the Securities and Exchange Commission - CVM - <www.cvm.gov.br>, from 01/20/18 to 03/20/18, in the "DFP" section, the necessary audit reports were consulted and read to answer the index questions. Subsequently (April/2018), the consultation related to re-publication and/or administrative proceedings was carried out. Finally, it was investigated whether any company had become insolvent, by means of searches on Google with the keywords: insolvency, judicial reorganization and bankruptcy, followed by the name of the company in question (April/2018).
Size, audit, time, audit committee, fees	Through research on the CVM website - <www.cvm.gov.br>, from 05/01/18 to 08/01/18, in the section Standardized Financial Statements - "DFP", the audit and management reports, registration form, governance code information, and reference form were consulted and read.
Risk	Quantum® data collection and query platform.
Conservatism	By searching the CVM website - <www.cvm.gov.br>, in September/2018, in the "DFP" section.

Source: Elaborated by the authors (2019).

The proposed Audit Quality Index - IQUA 2019 is presented below and in tables 2 and 3 are the constructs of the response and explanatory variables.

IQUA 2010 = β0 + β1Size + β2Audit + β3Time + β4Specialization + Committee + β6 Risk + β7 Fees + β8 Conservatism + ε

Table 2
Construct of response variable

Variable	Desciption / Measuring
IQUA – Braunbeck (2010)	The questions that make up the IQUA are assigned a value of 1 when audit problems are identified and 0 otherwise. In other words, the higher the final score, the lower the audit quality.
Used the variable	Teixeira, Camargo and Vicente (2016); Almeida (2017).
Question 1	Were the financial statements required to be republished by CVM?
Fundament 1	The determination, by CVM, to republish accounting information is taken as evidence that suggests inferior quality of the information originally disclosed by the company. Consequently, it is reasonable to consider this evidence as useful in the evaluation of the quality of the independent audit performed on the published financial statements.
Question 2	Was the auditor of the financial statements subject to administrative disciplinary proceedures?
Fundament 2	The CVM, in its role of following up and monitoring the quality of accounting information, including the independent auditors' report, has the prerogative of sanctioning market participants when they fail to comply with the applicable rules and laws. To this end, it institutes administrative sanctioning procedures (PAS) to analyze situations in which possible non-compliance with norms and laws has been detected on the part of participants in the open market (including independent auditors).
Question 3	Did the audit opinion from the previous year contain any kind of material modification (qualification, negative, abstention, emphasis, or limitation on scope), in comparison with the opinion issued by this same auditor in the year under review (i.e., did the auditor issue a more "rigorous" opinion in his or her last year, before being replaced)?
Fundament 3	It is reasonable to assume that, in the last year of the relationship between auditor and client (especially in the Brazilian rotation system, in which the auditor knows beforehand the maximum term of an audit contract), the highest level of independence will be observed, since there is no future horizon for capturing quasi-income as the contract comes to an end.
Question 4	Did the report in the first or second consecutive year of the following audit firm issue an opinion with a less "rigorous" approach than the last opinion issued by the previous auditor?
Fundament 4	It aims to capture precisely the impacts on independence of specific quasi-income, particularly in the early years of the following auditor's relationship with the client.
Question 5	If the answer to 3 was "no" - did the first audit opinion issued by the following auditor contain any kind of material modification (caveat, negative, abstention, emphasis or scope limitation) compared to the opinion issued by the successor auditor (i.e., did the successor auditor issue a "stricter" opinion in the first year after the replacement?)
Fundament 5	If, despite the incentives in the terminating audit contract, the auditor does not act independently by omitting a flaw in his client's accounting system, the following auditor can be expected to be more independent than the previous and will eventually reveal flaws omitted by the previous auditor.
Question 6	Was the opinion issued more than 60 days after the financial statements' base date?

Variable	Desciption / Measuring
Fundament 6	Time would show the "negotiation" of the auditor and the client about adjustments to the financial statements. The assumption is the fact that publicly traded companies, in general, maintain incentives for the prompt disclosure of their results.
Question 7	If the company has presented an insolvency situation, characterized by composition with creditors, judicial reorganization or bankruptcy, did the auditor not issue a qualified opinion regarding the continuity and/or the financial situation in the fiscal year prior to the disclosure of the insolvency situation?
Question 8	If the company has presented an insolvency situation, characterized by negotiation with creditors, judicial reorganization or bankruptcy, did the auditor not issue an opinion with an emphasis on the continuity and/or the financial situation in the fiscal year prior to the disclosure of the insolvency situation?
Fundament 7 and 8	It is the auditor's responsibility to alert the reader of the financial statements of facts or uncertainties that cast doubt on the entity's continuity.

Source: Adapted from Braunbeck (2010, p. 64-69)

Table 3
Construct of independent variables

Variable	Description / measurment	Value
Size	Variável binária. Assume valor 1 quando a firma de auditoria é *Big Four* e 0, caso contrário.	
Used the variable	DeAngelo (1981); Dye (1993); DeFond and Subramanyam (1998); Fargher, Taylor and Simon, (2001); Ireland (2003); Levents and Caramanis (2005); Almeida and Almeida (2009); Braunbeck (2010); Harris (2012); Lennox, Francis and Wang (2012); Paulo, Cavalcante and Paulo (2013); Cunha, Lunelli, Santos and Faveri (2015); Luccas (2015); Mazzioni and Klann (2016); Almeida (2017); Brooks, Cheng, Johnston and Reichelt (2017); Reid and Carcello, (2017); Arcúrio Júnior and Gonçalves (2018);	
Hypothesis	$\mathbf{H_1}$**:** The larger the audit firm, the higher the audit quality.	-
Fundament	The larger the audit firm, the greater the amount of financial and operational resources available, consequently it has less financial dependence on its clients, reducing the chance of accepting pressure from the client company, hence the higher the audit quality (DeAngelo, 1981; Fargher et al., 2001; Almeida and Almeida, 2009; Braunbeck, 2010; Paulo, Cavalcante and Paulo, 2013; Luccas, 2015; Teixeira, Camargo and Vicente, 2016; Almeida, 2017; Arcúrio Júnior, 2018.)	
Audit	Variable ranked by assigning increasing values from 1 to 7 for the audit firms, with values from 1 to 4 representing the Big Four and values from 5 to 7, the other audit firms.	
Used the variable	Sant`Ana, 2019	
Hypothesis	$\mathbf{H_1}$**:** The larger the audit firm, the higher the audit quality.	+
Fundament	Variable intended to confirm the size variable (Sant' Ana, 2019).	
Time	Discrete variable, measured in years. From 1 to 5 years, the longer the audit time, the better the quality.	
Used the variable	Jenkins and Velury (2008), Braunbeck (2010); Li (2010); Chi, Douthett and Lisic (2012); Paulo, Cavalcante and Paulo (2013); Dantas and Medeiros (2015); Almeida (2017); Arcúrio Júnior and Gonçalves (2018);	
Hypothesis	$\mathbf{H_2}$**:** The longer the time in years (1 to 5 years), the higher the quality of the audit.	-

Variable	Description / measurment	Value
Fundament	Through the learning effect, it is understood that the longer the working time, the better the quality of the service provided. Levinthal and Fichman(1988); Myers, Myers and Omer (2003); Ghosh and Moon, (2005); Jenkins and Velury, (2008); Braunbeck (2010); Azevedo and Costa (2012).	
Specialization	Calculated by comparing the total assets of clients in a particular industry audited by an audit firm to the assets of the industry as a whole.	
Used the variable	Balsam, Krishnan and Yang (2003); Behn, Choi and Kang (2008); Braunbeck (2010); Sun and Liu (2011); Paulo et al., 2013; Dantas and Medeiros, 2015; Almeida (2017); Arcúrio Júnior and Gonçalves (2018).	
Hypothesis	**H_3:** If the audit firm is an expert in the industry in which the service is being provided, the higher the quality of the audit.	-
Fundament	The more knowledge an audit firm has about a sector of the economy, the more it will be intimate with the situation of the client company and therefore provide a higher quality audit service (Sun & Liu, 2011; Hu, 2015). Expert audit professionals are considered by the market to be more competent (Lu & Sapra, 2009; Braunbeck, 2010).	
Audit Commitee	Dichotomous variable. Receives a value of 1 if the company has an audit committee, and 0 if it does not.	
Used the variable	Smith (2006); Koch, Weber and Wüstemann (2012); Paulo *et al.* (2013); Dantas & Medeiros (2015); Arcúrio Júnior & Gonçalves (2018);	
Hypothesis	**H_4:** If the company has an audit committee, the higher the audit quality	-
Fundament	According to Peleias, Segreti, and Costa (2009), the audit committee is relevant in reducing the agency conflict (management-investors), acting in the protection of investors' interests, in the verification of internal controls, in the continuous relationship with the external auditors and the disclosure of accounting information. It collaborates with the auditor's independence (Dantas & Medeiros, 2015).	
Risk	Measured by the financial leverage: current liabilities plus non-current liabilities divided by total assets.	
Used the variable	Mazzioni and Klann (2016); Almeida (2017);	
Hypothesis	**H_5:** The higher the financial leverage, the higher the audit quality	-
Fundament	The more debt the client company has, the greater the auditor's concern in providing quality service, in an independent way, so as not to be involved in a possible future scandal (Arruñada, 1997).	
Fees	Total amount of fees received.	
Used the variable	Hope and Langli (2010); Camargo (2012); Cunha *et al.* (2015); Arcúrio Júnior and Gonçalves (2018);	
Hypothesis	**H_6:** The higher the amount of fees received, the higher the quality of the audit	-
Fundament	Convergence to international accounting standards creates a greater possibility of discretion in the preparation of accounting information, which entails a greater effort on the part of auditors. (Arcúrio Júnior & Gonçalves, 2018).	
Conservatism	Model proposed by Basu (1997).	
Used the variable	Francis (2011); Paulo *et al.* (2013); Knechel, Krishnan, Pevzner, Shefchik and Velury (2013); Dantas and Medeiros (2015); Hu (2015); Salehi, Moradi e Paiydarmanesh (2017); Arcúrio Júnior and Gonçalves (2018).	

Variable	Description / measurment	Value
Hypothesis	$\mathbf{H_7}$: The more conservative the client company is in accounting for facts that affect profit, the higher the quality of the audit.	-
Fundament	A more conservative recording of positive facts than negative facts (Basu, 1997) reduces audit and auditor risk, the risk of being involved in scandals, and opportunistic behavior by managers (Defond, Lim & Zang, 2015), improving the quality of accounting information.	

Source: Elaborated by the author (2019).

Basu's (1997) model was used to calculate conservatism, as proposed below.

$$Xit/Pit{-}1 = \alpha 0 + \alpha 1\ D + \beta 0\ \ \Delta Xit{-}1/Pit{-}2 + \beta 1\ \ D\ \Delta Xit{-}1/Pit{-}2 + \varepsilon$$

In which:
Xit is the profit of firm i in relation to the moment t;
ΔXit is the variation of the profit of firm i in relation to the moment t-1;
$Pit{-}1$ is the stock price for firm i relative to the moment t-1;
$Pit{-}2$ is the stock price for firm i relative to the moment t-2;
D is a dummy variable that assumes value 1 for negative returns and 0 for positive returns;
ε, is the error term.

The share price results from the weighting between the number of shares and the share value, considering the common shares (ON) and preferred shares (PN), in case the company has both types. The dummy variable was constructed after calculating the returns of each company each year, which are obtained by the quotient of the prices in a year in relation to the previous year. If this division showed negative returns, 1 was assigned to the dummy variable, and if not, 0 was put. Of the 234 records, 108 had valued 1, representing 46.15% of the data. The negative coefficients were used for estimating the 2019 IQUA.

This is a regression with panel data. In this study, the generalized method of moments was used, since the variables can be endogenous. Gul et al. (2009), when studying result management and the length of the relationship between the audit firm and the client company, concluded that these variables may be endogenous. According to Greene (2003), econometrics allows for the empirical measurement of the relationships between variables postulated by economic theory. In this way, mathematics, statistics, and the underlying theory of the data generating process, which is generally unknown, are unified. In this sense, the identification of the appropriate econometric model depends directly on the behavior of the data being worked on and, once identified, it is possible to make forecasts and analyses of its behavior.

As a way to avoid specification problems, the Generalized Method of Moments (GMM) can be used to estimate the parameters of interest. This model is an extension of the method of moments, which consists of replacing the moments of the unknown population with the corresponding moments of the sample (Heij et al., 2004). Thus, the model does not need to meet a series of assumptions, but only to meet the specification conditions of the moments. If a p ×1 vector of parameters θ is to be estimated, the exact estimation of the parameters depends on the moment condition: E[f(x_t;θ)]=0, where f(x_t;θ) is the probability distribution

function of the sample. According to Heij et. al. (2004), the GMM estimator is obtained by replacing E with the simple sample mean, so that: 1/n ∑_(i=1)^n⁡〖 f(x_t;θˆ)=0〗

In this work, the Chi-Square distribution function was adopted, which can be interpreted both as a specific case of the gamma distribution and as a standard normal squared distribution. The form of its distribution is given by the following equation, with v degrees of freedom: f(x;θ)=1/(2^(θ⁄2) Γ(θ/2)) x^((θ/2)-1) exp⁡(-θ/2);θ>0;x>0. According to Heij et al. (2004), for GMM estimation, one must first specify a sufficient number of moment conditions. In the case of the Chi-Square distribution function, the first moment was used for parameter estimation.

Panel data was estimated using the GMM since endogeneity is perceived to occur. For example, a previous problematic report may be responsible for the increase in the value of the fee, the risk, and the size of the audit firm, since, when faced with a previous modified audit report, the new auditor may charge more for services (more working hours) due to the increase in audit risk and reputation problems. In the opposite direction, when faced with a leveraged company, the auditor will tend to perform the work with higher quality, in terms of extent and volume, which may imply an increased likelihood of issuing a qualified opinion. And, an audit firm that charges more for its fees, which may represent performing a more thorough audit (volume), tends to increase the likelihood of issuing a modified report.

The major limitation of the methodological proposal is in the sample, which is subject to short panel bias. The short panel bias is very common in empirical studies in Corporate Finance since "T" is much smaller than "N" (Barros, Bergmann, Castro & Silveira, 2020). However, the generalized method of moments efficiently adjusts for short panel bias (Barros, Bergmann, Castro & Silveira, 2020). Furthermore, the very constitution of the sample was based on observations with a high potential of representation of "N" since the selection occurred with Ibovespa companies.

3 RESULTS AND DISCUSSION

Chart 1 shows the descriptive statistics of the variables in the article presented by year, from 2010 to 2017, and for the entire period. When considering each of the respective years, as well as the total sample, it can be seen that the average IQUA 2010 was 0.8413; as of 2013, the variable IQUA 2010 began to increase, meaning a reduction in audit quality. This situation can be explained by the growing effort to adapt and harmonize to International Accounting, which began in 2007, through the enactment of Law 11.638/2007. According to Macedo, Machado, and Machado (2013, p.70), "(...) from 2007 to 2012, 41 technical pronouncements were issued (...)", which affected accounting and, consequently, the auditor's work. It is understood that both companies and audit firms need a period to understand, adapt, and mature towards the evolutions of the profession.

Regarding the time variable, the average value was 2.9712, representing the number of years that an audit firm stays with the same company. The average standard deviation for the period was approximately 0.71 years. Finally, the audit

is a variable representing all firms in the sample, recoded from 1 to 7, with values from 1 to 4 for the Big Four and 5 to 7 for the other audit firms.

Chart 1
Descriptive statistics for the average of the variables used, by year and total

Year	IQUA2010	Conservatism	Risk	Fees	Committee	Specialization	Time	Size	Audit
2010	0.6923	-0.0252	0.0210	0.0002	0.5200	0.5435	3.3462	0.9615	2.3846
2011	1.2308	-0.0252	0.0157	0.0001	0.5385	0.5075	4.0000	1	2.1923
2012	1.1923	-0.0252	0.0299	0.0001	0.5769	0.5049	2.3077	1	1.9615
2013	0.6154	-0.0252	0.0147	0.0001	0.5769	0.5351	2.5000	0.9615	2.0769
2014	0.7308	-0.0252	0.0245	0.0001	0.5769	0.5205	3.1154	0.9615	2.2308
2015	0.7308	-0.0252	- 0.0044	0.0001	0.5769	0.5392	3.0769	0.9230	2.7692
2016	0.7308	-0.0252	0.0391	0.0001	0.6538	0.5468	3.5000	0.9230	2.8077
2017	0.8077	-0.0252	0.0116	0.0001	0.6538	0.5027	1.9231	0.8846	3.1154
Total	**0.8413**	**-0.0252**	**0.0190**	**0.0001**	**0.5842**	**0.5250**	**2.9712**	**0.9519**	**2.4423**

Source: Elaborated by the author (2019)

Another likely explanation is the economic crisis in Brazil that occurred from 2014 to 2017. According to Barbosa Filho (2017), the Brazilian economy formally entered into recession in the second half of 2014, resulting in a 9% drop in Brazilian per capita product between 2014 and 2016. The crisis originated from a sequence of supply and demand shocks, which were responsible for reducing the economy's growth capacity, motivated by public policy errors that, in turn, generated a high fiscal cost. For the conservatism variable, the average was -0.252 with zero standard deviation, given its lack of variability. Risk, in turn, had a standard deviation of 0.0914, with a maximum value in the sample in 2016 (0.8748).

The fee variable did not change over the years. Concerning the average, the value changed only in 2010 in the fourth decimal place. The audit committee and audit firm size are binary variables in which it was 1 if present and 0 if absent; size represents the size of the audit firm, being 1 if the firm is classified as Big Four and 0 otherwise. The committee average was 0.5842, showing that when considering the whole period, 58.42% of the companies have an audit committee. Regarding specialization, in 2010 and 2016 the average behavior was similar, with the value differing only in the third decimal place. The total average for the period in this variable was 0.5250.

Net income divided by the share price represents a relevant variable that composes Basu's (1997) model. With all the necessary variables and using the software R, Basu's (1997) regression was calculated and the results are presented in Chart 2. The D-dummy variable was not significant in the sample; however, the model obtained an adjusted coefficient of determination equal to 98.33%, which is a satisfactory result. The other variables (ΔXit-1/Pit-2 and D x ΔXit-1/Pit-2) were significant at 1%, considering the p-value obtained close to zero. By interpreting the coefficients, it can be seen that $\beta 0$ and $\beta 1$ were positive. As pointed out by Cunha, Dantas, and Medeiros (2016) and Arcúrio Júnior (2018), in order to verify the presence of conditional conservatism in accounting results, it is necessary to identify statistically null or positive values for $\beta 0$, which occurs in this study.

Chart 2
Regression results – Basu model (1997)

Variable	Coeficient	P-value
D	-0.00223	0.9031
$\Delta Xit-1/Pit-2$	0.80445	<2e-16
D x $\Delta Xit-1/Pit-2$	0.71929	<2e-17
R^2	0.9853	
R^2 ajusted	0.9833	

Fonte: elaboração da autora (2018)

In addition to negative values for the $\beta 1$ coefficient, the sum of the $\beta 0$ and $\beta 1$ coefficients should result in a value less than zero, a situation not proven in this study. Alternatively, the assumption that economic losses are recognized more quickly than gains was used as a proxy for conservatism, according to Ball and Shivakumar (2005) and Arcúrio Junior (2018), through the values of $\beta 1 < 0$. Using the regression, it is possible to calculate a coefficient of conservatism per company present in the sample, as shown in Chart 3.

Chart 3
Coeficients per company in Basu's model (1997)

Company	Coef. Est.	Company	Coef. Est.	Company	Coef. Est.	Company	Coef. Est.	Company	Coef. Est.
ABEV3	-0.00175	CMIG4	0.01042	CYRE3	-0.00526	JBSS3	-0.02432	PETR3	-0.02509
BRAP4	-0.04813	CPFE3	-0.00269	EMBR3	0.01137	LAME4	-0.00692	RAIL3	0.16007
BRFS3	0.01316	CPLE6	-0.02070	FIBR3	-0.00327	LREN3	0.00264	SBSP3	0.00600
BRKM5	0.02687	CSAN3	-0.00952	GGBR4	-0.00328	MRVE3	-0.00233	UGPA4	0.00718
CCRO3	-0.00119	CSNA3	-0.10958	GOAU4	0.01292	NATU3	-0.01094	USIM5	0.03499
								VALE3	-0.12893

Source: Elaborated by the author (2018).

Even though the GMM does not require the absence of correlation between regressors and unobserved heterogeneity, the method assumes that the form of this correlation does not change over the period (ROODMAN, 2009), as was observed in this work, since the randomness of the data was verified. The normality of the residuals was tested, aiming for the plotted data to approach the normality line. It was concluded that the model met the necessary conditions for its adequacy and estimation. The result of the estimated regression is presented in Chart 4.

Chart 4
Results of the regression for IQUA 2019

Variable	Coeficient	P-value
(Intercepto)	1.1525	0,0000***
Size	- 0.1223	0.0742 *
Audit	0.1293	0.0249 **
Time	- 0.0189	0.0327 **
Specialization	- 0.4147	0.0941 *
Committee	- 0.2124	0.0205 **
Risk	- 1.3905	0.0040***
Fees	-1,591.00	0.0419 **
Conservatism	- 1.1716	0.0709 *

Sig. *** 1%, ** 5%, * 10%
Source: Elaborated by the author (2018)

All variables were significant, considering the p-value obtained. The negative value of all coefficients, except for the auditing variable, stands out. The size proxy (H_1 and expected sign confirmed) was significant at 10%. The audit quality is influenced by the size of the audit firm and this relationship can be explained by the evidence: i) a high number of employees and, therefore, auditors are not overloaded with tasks; ii) they have more specialists at their disposal, and can be strategically allocated between projects; iii) they have a reputation to maintain, and iv) they are more independent (DeAngelo, 1981; Ferfergunson, Francis & Donald, 2003; Choi et al. 2007; Francis & Yu, 2009; Adeyemi & Fagbemi, 2010; Choi, Kim, Kim &Zang, 2010; Beisland, Mersland & Strøm, 2013; Reyad, 2013; Martinez, Lessa & Moraes, 2014; Khan, Muttakin, & Siddiqui, 2015; Prazeres & Pais, 2017). In the opposite direction of the results of this research and that of the cited authors, Tendeloo & Vanstraelen (2005); Piot & Janin (2007), and Makni, Kolsi & Affes (2012) observed no relationship between the variables audit firm size and audit quality.

The explanatory variable auditing (H_1 and expected value confirmed) was significant at 5%. This variable was reclassified, assigning increasing values from 1 to 7 to audit firms, where values from 1 to 4 represent the Big Four and values from 5 to 7 for non-Big Four. Higher values in this variable relate to non-Big Four firms and, by the positive beta in the regression, the fact that the firm receives such a rating represents an increase in the 2019 IQUA and, consequently, a decrease in audit quality. The time estimate (H_2 and expected value confirmed) showed a significant result at 5%, representing that the longer the audit time (auditor-client relationship), the higher the audit quality. It should be noted that the time considered was from one to five years, since, in Brazil, the rotation of audit firms is currently in effect.

Through specialization (H_3 and expected value confirmed) of the audit firm, a significant relationship was obtained at 10%. Audit quality is influenced by specialization (Francis, Reichelt & Wang, 2005; Reyad, 2013). Specialization in a particular industry by an audit firm is more relevant to the client company than the size of the firm (Francis, Reichelt & Wang, 2005). It was realized that the presence of the audit committee (H_4 and expected value confirmed), significant at 5%, increases audit quality. However, Enron was a major scandal related to fraud practiced by top management and not reported by the independent auditors, who were complicit. At the time, there was an audit committee in place, consisting

of six qualified members and four experts. This committee did not report any irregularities (Felo, Krishnamurthy & Solieri, 2003).

For DeFond (1992); Adeyemi, and Fagbemi (2010), and Reyad (2013), risk influences audit quality and the results of this study corroborate those findings. The variable showed significance at 1%. (H_5 and expected value confirmed). On the other hand, in the works of Abbott, Parker, and Gary (2006) and Gajevszky (2014), no relationship was perceived between the variables audit quality and risk.

The fee rate is related to the audit quality (Francis & Simon,1987; Chaney, Jeter & Shivakumar, 2004; Lin & Hwang, 2010; Prazeres & Pais, 2017), expressed by a more thorough audit service (Abbott, Parker & Gary, 2006; Bortolon, Neto & Santos, 2013). The largest audit firms operating in the United States of America charge a higher rate in fees, which reflects positively on the quality of the audit provided (Fergunson, Francis & Donald, 2003). The results of this paper corroborate the findings of the previously cited research. The proxy was significant at 5% (H_6 and expected sign confirmed). However, a high fee amount can reduce auditor independence (Dobre, 2015; Rusmin et al., 2009) through pressure from the client company's management (Simunic, 1980; Basioudis, Papakonstantinou & Geiger, 2008).

It should be noted that the conservatism variable (H_7,, and expected value confirmed) was significant at 10%. Thus, the higher the quality of accounting information, expressed through the proxies conservatism and financial leverage, the higher the audit quality. According to Paulo, Cavalcante & Paulo (2013), conservatism is the most used construct in research investigating the quality of accounting information. For the authors, an audit service provided with high quality has a direct and positive relationship with the quality of accounting information.

The GMM regression showed a J-statistic of approximately 0 and follows a chi-square distribution, with the null hypothesis that the instruments used are valid. Therefore, at the 1% significance level, the hypothesis that the instruments are valid cannot be rejected. It is also possible to estimate the audit quality coefficients per company, with lower values indicating better audit quality, as shown in Chart 5.

Chart 5
Coefficients per company for audit quality IQUA 2019

Variable	Coeficient
ABEV3	0.6444
BRAP4	1.6187
BRFS3	0.9767
BRKM5	0.7998
CCRO3	0.7488
CMIG4	1.6057
CPFE3	1.5360
CPLE6	1.3380
CSAN3	0.7032
CSNA3	1.5737
CYRE3	1.6177
EMBR3	1.3079
FIBR3	0.2077
GGBR4	0.6341
GOAU4	0.6488
JBSS3	1.8053
LAME4	1.1145
LREN3	0.3740
MRVE3	1.6678
NATU3	0.5121
PETR3	1.1675
RAIL3	0.6924
SBSP3	1.4105
UGPA4	0.6736
USIM5	1.1923
VALE3	0.6107

Source: Elaborated by the author (2018)

When evaluating the coefficients per company, a ranking is established in which the lowest values and, therefore, best audit quality coefficients found are for Fibria (FIBR3), Lojas Renner (LREN3), and Natura (NATU3), at 0.21, 0.37, and 0.51, respectively. The companies with the worst audit quality in the period were Bradespar (BRAP4), MRV (MRVE3), and JBS (JBSS3), with coefficients of 1.62, 1.67, and 1.80, respectively.

4 FINAL CONSIDERATIONS

The objective of this study was to estimate an audit quality index - IQUA 2019 of Ibovespa companies from 2010 to 2017. To this end, proxies were selected from the literature in the area, focusing on the audit firm and the client company since audit quality can be influenced by both the characteristics of the audit firm and the client company.

After estimating the 2019 IQUA, it was found that all of its component variables proved to be significant. Thus, it was empirically observed that the proxies

size of the audit firm, length of the auditor-client relationship, specialization of the audit firm, financial leverage of the client company, auditor fees, and, the precaution with which positive news is accounted for, to the detriment of bad news by companies, are influencers of audit quality.

The variable conservatism is linked to the quality of accounting information. Thus, it was perceived that accounting information quality influences audit quality. Financial leverage was observed as the most relevant and influential of the variables and the specialization of the audit firm was considered the least important.

Concerning the companies that comprised the sample, Fibria, Lojas Renner, and Natura stand out as being the companies with the highest audit quality. Thus, one can conclude that these companies have the highest quality accounting information and, thus, have less informational asymmetry and fewer conflicts between agents. On the other hand, Bradespar, MRV, and JBS are the worst. It should be added that on 01/14/19 the merger between Fibria Celulose and Suzano Papel e Celulose was concluded.

The accounting profession has undergone several transformations over the years, such as convergence to international accounting standards, the primacy of essence over form in accounting, the increasingly intense use of technology through computerized systems, and the management of large databases, among others. These changes may reflect on the work of the external auditor, the variation in the risk of the work, the reputation and competence of the professional, and the fee rate. This is because of the greater demands and challenges in the routine of the independent auditor.

To better understand this scenario, a more detailed study of the companies is necessary, such as understanding and verifying the adoption of good corporate governance practices, and verifying the transparency of the company through the evaluation, for example, of the code of conduct, sustainability report, compliance report, investor relations, etc. One must emphasize the need to understand the cognitive aspects that influence the quality of the service provided by the independent auditor. It is a classic example of decision-making when a flaw is spotted. The professional has two paths: i) report it, assuming the risk of being replaced and, consequently, having to deal with financial, labor, and social losses or ii) not disclose it and assume the risk of future legal, institutional (CVM), and/or reputational problems. These are, therefore, the limitations of the research.

We suggest studying the relationship between best practices of corporate governance; the influence of the Brazilian economic crisis of 2014-2017; the analysis of the quality of accounting information through other vectors, such as, for example, result management; and its effects on audit quality. Another suggestion would be to observe the treatment given to the subject "corruption" in the new audit report's "key audit matters" section. Finally, it is necessary to understand auditors' behavior in the face of the various conflicts to which they are subjected daily.

REFERENCES

Abbott, L. J., Parker, S., & Gary, F. P. (2006). Earnings Management, Litigation Risk, and Asymmetric Audit Fee. *Auditing:* A Journal of Practice & Theory, 25(1), 85–98. https://doi.org/10.2308/aud.2006.25.1.85

Almeida, J. E. F., & Almeida, J. C. G. (2009). Auditoria e earnings management: estudo empírico nas empresas abertas auditadas pelas big four e demais firmas de auditoria. *Revista Contabilidade & Finanças*, 20 (50), 62-74. https://doi.org/10.1590/S1519-70772009000200005

Almeida, P. R. D. (2017). *Prospecção acerca de um prazo ótimo para rodízio de firmas de auditoria no Brasil.* 138 f, Tese (Doutorado). Universidade de São Paulo, São Paulo. https://doi.org/10.11606/T.12.2018.tde-20022018-152730

Arcúrio Júnior, T. (2018). *Assimetria de informação e qualidade da auditoria: análise das empresas listadas na B3, no período pré e pós-convergência às normas internacionais*. 128 f, Dissertação (Mestrado) - Universidade de Brasília - Brasília/DF. https://repositorio.unb.br/handle/10482/32211

Arcúrio Júnior, T.; Gonçalves, R. S. (2018). CUE101-AssimetriadeInformaçãoe Qualidade da Auditoria: análise das empresas listadas na b3, no período pré e pós-convergência às normas internacionais. *Anais da XII edição do congresso da Associação Nacional de Pós-graduação em Ciências Contábeis - Anpcont.* https://repositorio.unb.br/handle/10482/32211

Arruñada, B. (1997). *La calidad de La auditoría*: *incentivos privados y regulación*. Madrid: Marcial Pons. http://www.jstor.org/stable/42781306

Azevedo, F. B., & Costa, F. M. (2012*).* Efeito da troca da firma de auditoria no gerenciamento de resultados das companhias abertas brasileiras. *RAM Revista de Administração do Mackenzie*, 13(5), 65-100. https://doi.org/10.1590/S1678-69712012000500004

Ball, R., Shivakumar, L. (2005). Earnings quality UK private firms: comparative loss recognition timeliness. *Journal of Accounting and Economics*, 39 (1), 83-128. https://doi.org/10.1016/j.jacceco.2004.04.001

Balsam, S., Krishnan, J., &Yang, J.S. (2003) Auditor Industry Specialization and Earnings Quality. *Auditing*: A Journal of Practice & Theory, 22 (2), 71-97. https://doi.org/10.2308/aud.2003.22.2.71

Barros, L. A., Bergmann, D. R., Castro, F. H., & Silveira, A. D. M. D. (2020). Endogeneidade em regressões com dados em painel: Um guia metodológico para pesquisa em finanças corporativas. Revista Brasileira de Gestão de Negócios, 22(SPE), 437-461. https://doi.org/10.7819/rbgn.v22i0.4059

Basioudis, I. G., Papakonstantinou, E., & Geiger, M. A. (2008). Audit fees, Non-audit Fees and Auditor Going-Concern Reporting Decisions in the United Kingdom.

Abacus: A Journal of Accounting, Finance and Business Studies, 44(3), 284–309. https://doi.org/10.1111/j.1467-6281.2008.00263.x

Basu, S. (1997) The Conservatism Principle and the Asymmetric Timeliness of Earnings. *Journal of Accounting and Economics*, 24 (1), 3-37. https://doi.org/10.1016/S0165-4101(97)00014-1

Behn, B. K., Choi, J., & Kang, T. (2008) Audit Quality and Properties of Analyst Earnings Forecasts. *The Accounting Review,* 83 (2), 327-349. https://doi.org/10.2308/accr.2008.83.2.327

Beisland, L. A., Mersland, R., & Strøm, R. Ø. (2013). Audit Quality and Corporate Governance: Evidence from the Microfinance Industry. *Working paper no. 13/035, Solvay Brussels School Economics & Management, Belgium.* https://doi.org/10.1111/ijau.12041

Bortolon, P. M., Neto, A. S., & Santos, T. B. (2013). Audit Costs and Corporate Governance. *Revista Contabilidade & Finanças* - USP, 24(61), 27–36. https://doi.org/10.1590/S1519-70772013000100004

BRASIL. Lei 11.638, de 28 de dezembro de 2007. Altera e revoga dispositivos da Lei 6404/76, e da Lei 6.385 de 7 de dezembro de 1976, e estabelece às sociedades de grande porte disposições relativas à elaboração e divulgação de Demonstrações Financeiras.

Braunbeck, G. O. (2010). *Determinantes da qualidade das auditorias independentes no Brasil.*133 f*,* Tese (Doutorado). Universidade de São Paulo, São Paulo. https://doi.org/10.11606/T.12.2010.tde-04112010-161444

Brooks, L. L. Z., Cheng, C. S. A., Johnston, J. A., & Reichelt, K. J. (2017). Estimates of optimal audit firm tenure across different legal regimes. *Journal of Accounting, Auditing and Finance*, 32(1), 3-39. https://doi.org/10.1177/0148558X16641864

Camargo, R. V. W. (2012). *Determinantes dos pareceres dos auditores independentes emitidos às companhias negociadas na BM&FBOVESPA*. 206 f. Dissertação (Mestrado) –Universidade Federal de Santa Catarina, Florianópolis. http://repositorio.ufsc.br/xmlui/handle/123456789/96409

Camargo, R. V. W., Pepinelli, R. C. C., Dutra, M. H., & Alberton, L. (2012). Determinantes dos pareceres dos auditores independentes emitidos às companhias negociadas na BMF & Bovespa. *In: Congresso USP de Controladoria e Contabilidade, 12., 2012, São Paulo. Anais... São Paulo: FEA-USP.* http://repositorio.ufsc.br/xmlui/handle/123456789/96409

Carlin TM, Finch N, & Laili NH (2009). Questioning the Big 4 Audit Quality Assumption: New Evidence From Malaysia. ICFAI University. *Journal of Audit Practice* 6(2), 35–56. http://dx.doi.org/10.2139/ssrn.1280790

Chaney, P. K., Jeter, D. C., & Shivakumar, L. (2004). Self-Selection of Auditors and Audit Pricing in Private Firms. *The Accounting Review*, 79(1), 51–72. https://doi.org/10.2308/accr.2004.79.1.51

Chi, W., Douthett, E. B., Jr., & Lisic, L. L. (2012). Client importance and audit partner independence. *Journal of Accounting and Public Policy*, 31(3), p.320-336. https://doi.org/10.18374/JIBE-14-4.6

Choi, J.H., Kim, J. B., Qiu, A., & Zang, Y. (2007). Auditor Locality, Audit Quality and Audit Pricing. *Auditing:* A Journal of Practise & Theory, 29(1), 73–97 https://ink.library.smu.edu.sg/soa_research

Choi, J. H., Kim, J. B., Kim, & Zang, Y. (2010). Audit office size, audit quality and audit pricing. *Auditing*: A Journal of Practice and Theory 29 (1), 73-97. https://doi.org/10.2308/aud.2010.29.1.73

Cunha, E. S., Dantas, J. A., & Medeiros, O. R. (2016). Dois Modelos Contemporâneos de Divulgação Financeira na Indústria Bancária Brasileira: qual é mais conservador? *Advances in Scientific and Applied Accounting*, 9 (3), 301-317. http://dx.doi.org/10.14392/asaa.2016090304

Cunha, P. R., Lunelli, L. O.; Santos, V. Faveri, D. B.; & Júnior, M. M. R. (2015). Relação entre as características do Comitê de Auditoria e o atraso da emissão do relatório da auditoria independente (audit delay). *Contabilidade Gestão e Governança*, 18 (3). https://dx.doi.org/10.16930/2237-7662/rccc.v15n44p60-74

Dantas, J. A., & Medeiros, O. R. (2015). Determinantes de Qualidade da Auditoria Independente em Bancos. *Revista Contabilidade & Finanças*, USP, São Paulo, 26 (67), 43-56. https://doi.org/10.1590/rcf.v26i67.98097

DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183–199. https://doi.org/10.1016/0165-4101(81)90002-1

DeFond, M. L. (1992). The Association Between Changes in Client Firm Agency Costs and Auditor Switching. *Auditing:* A Journal of Practice & Theory, 11(1), 16–31. http://www.jstor.org/stable/248267

Defond, M. L., & Subramanyam, K. R. (1998) Auditor changes and discretionary accruals. *Journal of accounting and Economics*, 25(1), p. 35-67. http://www.sciencedirect.com/science/article/pii/S0165-4101(98)00018-4

DeFond, M., & Zhang, J. (2014). A Review of Archival Auditing Research. *Journal of Accounting and Economics*, 58 (2-3), 275–326. https://doi.org/10.1016/j.jacceco.2014.09.002

DeFond, M. L.; Lim, C. Y., & Zang, Y. (2015) Client Conservatism and Auditor-Client Contracting. Marshall Research Paper Series. *Working Paper ACC 01.16. USC Marshall School of Business.* Forthcoming in The Accounting Review. https://ssrn.com/abstract=2601343.

Dobre, F. (2015). Are Financial Audit Elements and Corporate Governance Policies Solutions for the Economic Crisis? *Theoretical and Applied Economics*, 22 (2), 275–284.

Dye, R. A. (1993). Auditing standards, legal liability, and auditor wealth. *Journal of Political Economy*, *101* (5), 887-914. http://dx.doi.org/10.1086/261908

Fargher, N., Taylor, M. H., & Simon, D. T. (2001). *The demand for auditor reputation across international markets for audit services*. The International Journal of Accounting, 36 (4), 407-421. https://doi.org/10.1016/S0020-7063(01)00116-9

Felo, A. J., S. Krishnamurthy, & S., Solieri, S. A. (2003). Audit Committee Characteristics and the Perceived Quality of Financial Reporting: An Empirical Analysis. *Working paper, Penn State Great Valley.* http://dx.doi.org/10.2139/ssrn.401240

Fergunson, A., Francis, J. R., & Donald, J. S. (2003). The Effects of Firm-Wide and Office Level Industry Expertise on Auditing Pricing. *The Accounting Review*, 78(2), 429–448. https://doi.org/10.2308/accr.2003.78.2.429

Francis, J. R., & Simon, D. T. (1987). A Test of Audit Pricing in the Small-Client Segment of the U.S. Audit Market. *The Accounting Review*, 62 (1), 145–157. from http://www.jstor.org/stable/248051

Francis, J. R. (2004). What Do We Know About Audit Quality? *British Accounting Review*, 36(4), 345–368. https://doi.org/10.1016/j.bar.2004.09.003

Francis, J. R., Reichelt, K., & Wang, D. (2005). The Pricing of National and City-Specific Reputations for Industry Expertise in the U.S. Audit Market. *The Accounting Review*, 80(1), 113–136. https://doi.org/10.2308/accr.2005.80.1.113

Francis, J. R. & D. Yu. (2009). The effect of big four office size on audit quality. *The Accounting Review*, 84 (5). https://doi.org/10.2308/accr.2009.84.5.1521

Francis, J. R. (2011). *A framework for understanding and researching audit quality.* Auditing: A journal of Practice & Theory, 30 (2), 125-152. https://doi.org/10.2308/ajpt-50006

Gajevszky, A. (2014). Audit Quality and Corporate Governance: Evidence From the Bucharest Stock Exchange. *In 6th International Scientific Conference on Economic and Social Development and 3rd Eastern European ESD Conference: Business Continuity*, 393– 403.

Greene, W. H. (2003). *Econometric analysis*, 5th. Ed.. Upper Saddle River, NJ, 89-140.

Ghosh, A., & Moon, D. (2005). Auditor tenure and perceptions of audit quality. *The accounting review*, 80 (2), p. 585-612. http://www.jstor.org/stable/4093070

Gul, F. A., Fung, S. Y., & Jaggi, B. (2009). Earnings quality: some evidence of the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics*, 47, 265-287. https://doi.org/10.1016/j.jacceco.2009.03.001

Harris, K. (2012). *Mandatory audit rotation: an international investigation.* 87 f, Tese (Doutorado). Academic Faculty of the C. T. Bauer College of Business University of Huston, Huston.

Healy, P., & Palepu, K. (2001*). Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature. Journal of Accounting and Economics.* 31(1-3), 405-440. https://doi.org/10.1016/S0165-4101(01)00018-0

Heij, C., Boer, P., Franses, P. H., Kloek, T., & Dijk, H. K. V. (2004). *Econometric methods with applications in business and economics*. Oxford University Press.

Hendriksen, E. S., & Van Breda, M. F. (1999). *Teoria da Contabilidade*. São Paulo: Atlas.

Hope, O., & Langli, J. C. (2010). Auditor Independence in a Private Firm and Low Litigation Risk Setting. *The Accounting Review*, 85(2), 573-605. https://www.jstor.org/stable/20744142

Hopwood, W., McKeown, J., & Mutchler, J. (1989). A Test of the Incremental Explanatory Power of Opinions Qualified for Consistency and Uncertainty. *The Accounting Review*, 64(1), 28–48. https://www.jstor.org/stable/248127

Hu, D. (2015). Audit Quality and measurement: Towards a comprehensive understanding. *Academy of Accounting and Financial Studies Journal*, 19 (1).

Ireland, J. C. (2003) An empirical investigation of determinants of audit reports in the UK. *Journal of Business Finance and Accounting*, 30 (708), 975-1015. https://doi.org/10.1111/1468-5957.05417

Ito, E. Y. H., Mendes, P. C.M., & Niyama, J. K. (2008). Controle de qualidade dos serviços de auditoria independente: um estudo de comparativo entre as normas brasileiras e as normas internacionais. *Revista UnB Contábil*. Brasília, editor, 11(1-2), 312-328. https://repositorio.unb.br/handle/10482/610

Jenkins, D. S., & Velury, U. (2008). Does auditor tenure influence the reporting of conservative earnings? *Journal of Accounting and Public Policy*, 27 (2), 115-132. https://doi.org/10.1016/j.jaccpubpol.2008.01.005

Jensen, M. & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency cost, and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

Khan, A., Muttakin, M. B., & Siddiqui, J. (2015). Audit fees, auditor choice and stakeholder influence: Evidence from a family-firm dominated economy. *The*

British Accounting Review, 47(3), 304-320. https://doi.org/10.1016/j.bar.2015.03.002

Knechel, W. R., & Vanstraelen, A. (2007), The relationship between auditor tenure and audit quality implied by going concern opinions. *Auditing:* A Journal of Practice and Theory, 26 (1), 113–31. https://doi.org/10.2308/aud.2007.26.1.113

Knechel, W. R., Krishnan, G. V., Pevzner, M., Shefchik, L., & Velury, U. (2013). Audit Quality: Insights from the Academic Literature. *Auditing:* A Journal of Practice & Theory, 32 (sp1) 385-421. https://doi.org/10.2308/ajpt-50350

Koch, C., Weber, M., & Wustemann, J. (2012). Can Auditors be Independent? Experimental Evidence on the Effects of Client Type. *European Accounting Review*, 21 (4), 797–823. https://doi.org/10.1080/09638180.2011.629416

Lennox, C., Francis, J.R., & Wang, Z. (2012). *Selection models in accounting research*. The Accounting Review 87(2), 589-616. http://dx.doi.org/10.2308/accr-10195

Leftwich, Rw., Watts, Rl., & Zimmerman, Jl. (1981). Voluntary corporate disclosure - The case of interim reporting, *Journal of Accounting Research*, 19, 50-77. https://doi.org/10.2307/2490984

Levinthal, D.A. & Fichman, M. (1988). Dynamics of Interorganizational Attachments: Auditor – Client Relationships. *Administrative Science Quarterly* 33(3), 345 – 369. https://doi.org/10.2307/2392713

Li, D. (2010). *Does auditor tenure affect accounting conservatism? Further evidence*. Journal of Accounting and Public Policy, 29 (3), 226-241. https://doi.org/10.1016/j.jaccpubpol.2010.03.004

Lin, J. W., & Hwang, M. I. (2010). Audit Quality, Corporate Governance, and Earnings Management: A Meta-Analysis. *International Journal of Auditing*, 14(1), 57–77. https://doi.org/10.1111/j.1099-1123.2009.00403.x

Lu, T., & Sapra, H. (2009). Auditor conservatism and investment efficiecy. *The Accounting Review*, 84 (6), 1933-1958. https://www.jstor.org/stable/27784249

Luccas, R. G. (2015). Desvendando a opinião da auditoria independente: o resultado da auditoria. 75 f, Dissertação (Mestrado). Universidade de São Paulo, São Paulo. https://doi.org/10.11606/D.12.2015.tde-08092015-153116

Macedo, M. A. S., Machado, M. A. V., & Machado, M. R. (2013). Análise da relevância da informação contábil no Brasil num contexto de convergência às normas internacionais de contabilidade. *Revista Universo Contábil*, 9 (1), 65-85. https://doi.org/10.4270/RUC.2014318

Makni, I., Kolsi, M. C., & Affes, H. (2012). The Impact of Corporate Governance Mechanisms On Earnings Management: Evidence From Banks In Ethiopia. *The*

IUP Journal of Corporate Governance, 11 (3), 48– 70. https://doi.org/10.5897/AJBM10.471

Martinez, A. L., Lassa, R. C., & Moraes, A. J. (2014). Remuneração dos auditores perante a agressividade tributária e governança corporativa no Brasil. *Revista de Contabilidade e Controladoria,* 6 (3), 8-18. http://dx.doi.org/10.5380/rcc.v6i3.34593

Mazzioni, S., & Klann, R. C. (2016). Determinantes da qualidade da informação contábil sob a perspectiva das características empresariais. *Enfoque:* Reflexão Contábil, *35* (1). https://doi.org/10.4025/enfoque.v35i1.30510

Moreira, F. S., Firmino, J. E., Santos, A. R., Silva, J. D. G., Silva, M. C. (2015). Qualidade da Auditoria no Brasil: Um Estudo do Julgamento dos Auditores Independentes na Aderência do Ajuste a Valor Presente nas Companhias de Construção e Engenharia Listadas na BM & F-Bovespa. Sociedade, Contabilidade e Gestão, 10 (1). https://doi.org/10.21446/scg_ufrj.v10i1.13344

Myers, J. N., Myers, L. A., & Omer, T. C. (2003). Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation? *The accounting review*, 78 (3), 779-799. https://doi.org/10.16930/2237-7662/rccc.v17n52.2694

O'Keefe, T. B., Simunic, Dan A., & Stein, M. T. (1994). The production of audit services: Evidence from a major public accounting firm. *Journal of Accounting Research*, 32 (2), 241-261. https://doi.org/10.2307/2491284

Paulo, I. I. S. L de M., Cavalcante, P. R. N., & Paulo, E. (2013). Relação entre qualidade da auditoria e conservadorismo contábil nas empresas brasileiras. REPEC – *Revista de Educação e Pesquisa em Contabilidade,* Brasília, 7 (3), 305-327. https://doi.org/10.17524/repec.v7i3.984

Peleias, I. R. Segreti, J. B., & Costa, C. A. (2009). Comitê de auditoria ou órgão equivalentes no contexto da Lei Sarbanes-Oxley: estudo da percepção dos gestores de empresas brasileiras emitentes de American Deposiary Receipts – ADRs. *Contabilidade Vista e Revista*, 20 (1), 41-65. Disponível em: https://revistas.face.ufmg.br/index.php/contabilidadevistaerevista/article/view/573.

Piot, C., & Janin, R. (2007). External Auditors, Audit Committees and Earnings Management in France. *European Accounting Review*, 16 (2), 429–454. https://doi.org/10.1080/09638180701391030

Prazeres, C. M. A. *et al.* (2017). A qualidade de auditoria e as características das firmas de auditoria em Portugal. *In: 12th Iberian Conference on Information Systems and Technologies (CISTI)*. IEEE, 325-330. https://doi.org 10.23919/CISTI.2017.7976040

Radebaugh, L. H. & Gray, S. J. (2002). *International Accounting & Multinational Enterprises.* 5 ed. USA: John-Wiley & Sons, Inc.

Reid, L. C., & Carcello, J. V. (2017). Investor reaction to the prospect of mandatory audit firm rotation. *The Accounting Review*, *92* (1), 183-211. https://doi.org/10.15604/ejef.2018.06.04.002

Rodrigues, R. M. R. C., Paulo, E., & de Melo, C. L. L. (2017). Gerenciamento de Resultados por decisões operacionais para sustentar desempenho nas empresas não-financeiras do Ibovespa. Contabilidade Vista & Revista, 28(3), 82-102. https://revistas.face.ufmg.br/index.php/contabilidadevistaerevista/article/view/3729.

Rusmin, R., Scully, G., Tower, G., & Taplin, R. (2009). The Impact of Corporate Governance and Ownership Concentration on Audit Quality in Three Asia Pacific Stock Markets. *Asia Pacific Journal of Economics & Business*, 13(2), 58–92. https://doi.org/10.23919/CISTI.2017.7976040

Salehi, M., Moradi, M., & Paiydarmanesh, N. (2017). The Effect of Corporate Governance and Audit Quality on Disclosure Quality: Evidence from Tehran Stock Exchange. *Periodica Polytechnica Social and Management Sciences*, 25 (1), 32-48. https://doi.org 10.3311/PPso.8354

Santos, E. S., Ponte, V. M. R., & Mapurunga, P. V. R. (2014). Adoção obrigatória do IFRS no Brasil (2010): índice de conformidade das empresas com a divulgação requerida e alguns fatores explicativos. *Revista Contabilidade & Finanças*, 25(65), 161-176. https://doi.org/10.1590/S1519-70772014000200006

Simunic, D. A. (1980). The Pricing of Audit Services: Theory and Evidence. *Journal of Accounting Research*, 18 (1), 161–190. https://doi.org/10.2307/2490397

Smith, L. M. (2006). Audit committee effectiveness: did the blue-ribbon committee recommendations make a difference? *Int. J. Accounting, Auditing and Performance Evaluation*, 3 (2). https://doi.org/10.1504/IJAAPE.2006.010303

Sun, J.; Liu, G. (2011). Industry specialist auditors, outsider directors, and financial analysts. *Journal of accounting and public policy*, 30 (4), 367-382. https://doi.org/10.1016/j.jaccpubpol.2010.10.002

Takamatsu, R. T., Lamounier, W. M., & Colauto, R. D. (2008). Impactos da divulgação de prejuízos nos retornos de ações de companhias participantes do Ibovespa. Revista Universo Contábil, 4(1), 46-63. http://dx.doi.org/10.4270/ruc.20084

Tendeloo, B. V., &Vanstraelen, A. (2005*).* Earnings Management under German GAAP versus IFRS*. European Accounting Review*, 14 (1), 155–180. https://doi.org/10.1080/0963818042000338988

Teixeira, B., Camargo, R. V. W, & Vicente, E. F. R. (2016). *Relação entre as características do Comitê de auditoria e a qualidade da auditoria*

independente. *Revista Catarinense da Ciência Contábil*, 15 (44), 60-74. http://dx.doi.org/10.16930/2237-7662/rccc.v15n44p60-74

AUTHORS' CONTRIBUTIONS

Contributions	Naiara Leite dos Santos Sant'Ana	Paulo Celso Pires Sant'Ana
1. Idealization and conception of the research subject and theme	✓	
2. Definition of the research problem	✓	
3. Development of Theoretical Platform	✓	
4. Design of the research methodological approach	✓	
5. Data collection	✓	✓
6. Analyses and interpretations of collected data	✓	
7. Research conclusions	✓	
8. Critical review of the manuscript		✓
9. Final writing of the manuscript, according to the rules established by the Journal.		✓
10. Research supervision		