QUALITY OF ACCOUNTING INFORMATION, CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE: A COMPARATIVE ANALYSIS OF BRAZILIAN AND FRENCH COMPANIES

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ABSTRACT

The Quality of Accounting Information and Corporate Governance influence the perception of investors about publicly traded companies. In view of this, this research explores the relationships among Quality of Accounting Information, Corporate Governance and Financial Performance of Brazilian and French companies. Thus, to demonstrate the existence of relationships among Quality of Accounting Information and Financial Performance of companies, governance structures and Financial Performance, and Quality of Accounting Information, governance structures and also Financial Performance of companies, a quantitative study of correlation among these dimensions was carried out. The relationships between quality and performance were statistically significant and have been proved. On the other hand, the relationships between governance and performance were strong, in view of the correlations found. Among the Financial Performance indicators, it is noteworthy that the profitability indicators are correlated with quality and governance more frequently than those of profitability. The result proved the initial assumptions about the existence of such relationships and showed that the French market reflected more evolution than the Brazilian market, that is, the relationships between Corporate Governance and Financial Performance were more evident in the case of French companies.

Keyword: *Quality of Accounting Information. Corporate Governance. Performance.*

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1 INTRODUCTION

The globalization process has usually led companies to worry more about the demand for reliable and comparable accounting information, to be well prepared for the variety of transactions and operations in different markets. Considering that internal and external users depend on accounting and financial information as support for the decision-making process, a clear and common understanding language is increasingly important that reliably portrays the economic and financial performance of companies, also referred to in this study as financial performance.

As a chain of authors (Dechow et al., 2010; Moradi & Nezami, 2011; Dichev et al., 2013; Capkun et al., 2016; Lo et al., 2017; Xu et al., 2019; Hong et al., 2019) focuses on associating the Quality of Accounting Information with performance, another chain seeks to understand the variables of Corporate Governance(Antonio et al., 2019, Correia et al., 2011; Fallatah e Dickins, 2012; Fallatah et al., 2012; Leuz & Wysocki, 2016; Liu et al., 2019), although there is no consolidated index in the literature. In addition, for this study, both profitability and returns proxies are used to analyze the mutual association among the variables, since one does not necessarily guarantee the other. Regarding the method, the correlation analysis was used, which aims to attest the existence of a mutual association between the variables: Quality of accounting information (QAI), corporate governance (CG) and financial performance (FP). It is noteworthy that, although other studies also use QIC models, there is no validated index of Corporate Governance in the literature. Thus, the present study stands out, even by using an index proposed by the authors.

In addition, it is sought to contribute to the state of the art in finance and also in accounting through the analysis of the individual and joint influence of quality instruments of Accounting Information and Corporate Governance on the Financial Performance of Companies. It is a still recent and rising aspect in applied social research, as demonstrated in the literature review presented. Furthermore, the work seeks to contribute in the managerial scope, since the objective of organizations is to maximize wealth, related to financial performance. Thus, the quality of accounting information and corporate governance mechanisms applied in companies influence performance.

In this context, the research aims to solve the following research problem: "How do the quality of accounting information and corporate governance impact the financial performance of publicly traded companies in Brazil and France?" The choice of France is because it is a developed country, compared to Brazil, which is an emerging nation, in addition to both countries having adopted the international accounting standards – *International Financial Reporting Standards* (IFRS), enabling the comparison of results, based on accounting variables.

Since accounting information is relevant to the decision-making process of the various users, whether internal or external to companies, the objective of this study is to analyze in a comparative way the possible effects of the quality of accounting information and Corporate Governance instruments on the Financial Performance of publicly traded companies in Brazil and France. It should be noted that in the internal context, accounting information allows managers to decide on the best allocation of available resources for the development of activities and to maximize value for shareholders. On the other hand, the evaluation of the current Economic and Financial Performance, based on the financial statements, enables investors and other stakeholders to estimate the future net cash flows of companies. To this end, profit persistence models, *accruals*, stock price relevance and *smoothness* were constructed in order to measure the quality of accounting information, as well as a corporate governance index was built.

2 THEORETICAL BASIS

The Conceptual Framework for the Elaboration and Dissemination of Accounting-Financial Report (known as "CPC 00"), an accounting standard that deals with the basic

conceptual structure of accounting, presents a new focus on the qualitative characteristics of financial statements, naming them qualitative and defining them more comprehensively. According to this standard, accounting information must have the following characteristics: comprehensibility, relevance, reliability, comparability, verification ability, timeliness of information, balance between cost and benefit for its production, as well as *the* concept of *true and fair view*, that is, fair and reliable value.

Despite the express concern of the conceptual structure with the characteristics that enhance the usefulness of accounting information, it is known that the quality of information can suffer restrictions or be enhanced due to the occurrence of phenomena studied from the perspective of the Theory of Regulation (Jensen, 1976), of the Agency Theory (Jensen & Meckling, 1976) and Efficient-Market Hypothesis (EMH) (Fama, 1970; Fama, 1991).

Accounting information is essential for the analysis of financial performance, which is also called economic and financial performance and reflects the financial results generated from the operational activities of the companies, that is, expresses the use of assets to generate revenue. This performance is directly associated with business cash flows and allows us to infer about corporate risks and to make comparisons among companies (Malik & Nadeem, 2014; Mills & Haines, 2015; Abidin et al., 2017). Therefore, financial performance represents measures of efficiency of the use of tangible and intangible assets with the purpose of increasing the owners' wealth.

With the evolution of the economic scenario and globalization, companies became complex and with this they faced problems related to the lack of transparency of accounting information, informational asymmetry and the conflict of interests among agents. These problems have been studied with a perspective of association with financial performance. In order to minimize these problems, companies have paid greater attention to the disclosure of their accounting information and adopted good Corporate Governance practices. Thus, they seek to present to the market better conditions for understanding their financial performance, as well as their causes of variations.

The literature about the Quality of Accounting Information (QAI) does not converge in the definition of meaning and ways of measuring quality. The use of measures more appropriately is directly linked to the research context (Dechow et al., 2010). The Quality of Accounting Information includes in its definition a multidimensional character linked both to the context of research and to the adoption of practices of management of accounting information of companies through the capital market in which they are inserted (Dechow et al., 2010; Daske et al., 2013; Christensen et al., 2015; Leuz & Wysocki, 2016; Baioco & Almeida, 2017; Santos et al., 2019).

The evaluation of the Quality of Accounting Information can be carried out with qualitative and quantitative analyzes elaborated based on the political and economic context and on the characteristics of the companies, as well as on the accounting results disclosed by business managers. Thus, the Quality of Accounting Information is evaluated in this study according to the constructs of persistence of profits, quality of *accruals*, relevance of stock price and *smoothness of* results (Dechow et al., 2010; Moradi & Nezami, 2011; Dichev et al., 2013; Capkun et al., 2016; Lo et al., 2017; Xu et al., 2019; Hong et al., 2019).

The Quality of Accounting Information is directly associated with the Financial Performance of Companies. According to Carpes Dani et al. (2019), there are not many studies that explore the association between Quality of Accounting Information and Financial Performance of Brazilian companies, measured by the *market-to-book value* index, relationship between market values and accounting of the company. The authors analyzed the relationship among the dependent variable, the index and the independent variables: audit, board of directors and *business accruals*. The three dimensions considered as the explanatory variables of the study had a positive influence on the companies' performance.

On the other hand, several empirical studies explore the companies' performance drivers (Correia et al., 2011; Fallatah et al., 2012; Leuz & Wysocki, 2016). The Quality of Accounting

Information as well as Corporate Governance structures are mechanisms for responding companies to the market (Antonio et al., 2019). The structure indirectly influences the response through the quality of gains.

The study by Fallatah and Dickins (2012) addresses the relationship of Corporate Governance Structures and Corporate Value. The authors investigated whether corporate governance practices and structures are associated with the financial performance and value of companies in Saudi Arabia. The results did not indicate a significant relationship between Corporate Governance and Financial Performance, measured based on return on assets. However, they identified significant and positive influence between governance practices and the value of companies, measured according to Tobin's Q and the market value of companies.

According to Liu et al. (2019), the profitability of Chinese companies is also associated with the connections between board members and the level of the same internal and external to the organizations. The authors explained that connected companies tend to greater access to third-party capital. The connections of Executive Officers and Directors with other managers and institutions greatly benefit the corporate activities of the companies. It is understood that these relationships favor the accomplishment of audits, as well as the collection of funds external to companies, which contributes to the increase of the company's market value.

According to Silva et al. (2012), the financial performance of Brazilian companies has been measured constantly by observing the historical evolution of net income, operating cash flow and earnings before interest, taxes, depreciation and amortization, measured with the EBITDA of companies. According to the authors, the relevant information for the capital market does not consist only of EBITDA. Net income and operational cash flow can also represent even more relevant information in terms of the financial performance of companies.

In Brazil there are studies that indicate an association between Corporate Governance and Financial Performance structures(Silva Macedo & Corrar, 2012; Claessens & Yurtoglu, 2013). In some emerging countries, companies with Corporate Governance best practices benefit from access to financing with lower capital costs and thus tend to better financial performance (Claessens & Yurtoglu, 2013). Souza and Borba (2017), in turn, concluded that the price of the shares of Brazilian companies listed on the stock exchange is positively and significantly associated with the business transparency and expectations of the companies' future profitability. Given the above, the present study aims to investigate the following assumptions:

$$P_1: QIC \rightarrow Desempenho$$

$$P_2: GC \rightarrow Desempenho$$

$$P_3: QIC \leftrightarrow Desempenho \leftrightarrow GC$$

In other words, on assumption 1, QAI is expected to influence the performance of companies, on assumption 2, CG is expected to influence the performance of companies and on assumption 3, QAI, performance and CG are expected to relate among them.

It is expected to demonstrate the existence of relationships among (i) Quality of Accounting Information and Financial Performance of companies, (ii) governance structures and Financial Performance, and (iii) Quality of Accounting Information, governance structures and also Financial Performance of companies.

3 METHODOLOGICAL PROCEDURES

Accounting, Financial and Corporate Governance data of French and Brazilian companies obtained, as well as estimated financial performance indicators were dealt with quantitatively. Data from French companies were collected from 1987 to 2017, while data concerning Brazilian

companies from 1995 to 2017. These data were obtained through secondary collection of the Osiris database.

The models were estimated using the availability of variables from the databases of each sample, with data organized in unbalanced panels, in the software R. The advantage of the use of panel-ordered data consists of considering the heterogeneity of the group of individuals in a longitudinal way, and the variables are considered specific to each individual as well as over time (Gujarati & Porter, 2011; Fávero, 2013).

The data of companies from France and Brazil were dealt with as distinct samples according to the specific characteristics of the legislative and market context of the countries. Thus, data were collected from 592 French companies and 222 Brazilian companies. The models were estimated according to the availabilities of the collected data and null and negative observations of profitability and equity variables were excluded. These observations have no logical meaning in the analysis of companies in terms of management practices, since companies in normal activity do not present such values. Such observations probably concern discontinued companies.

3.1 Quality Models of Accounting Information

The construct Quality of Accounting Information was based on this study according to the metrics of *accruals*, relevance of stock price, *smoothness* and persistence of profits, selected by recurrence in studies and presented in the theoretical framework, according to the models presented in Table 1.

Table 1
Models of Quality Accounting Information

Model	Concepts	References
$CF_{it} = \alpha + \beta CF_{i,t-1} + \varepsilon_t$	Persistence of profits: Predictability of gains, regression of cash flow (CF_{it}) against its lag, adjusted by the total asset.	Frankel & Litov (2009); Shiri et al., (2012).
$\frac{TA_{it}}{AL_{i,t-1}} = \alpha_i \left(\frac{1}{AL_{i,t-1}}\right) + \beta_{1i}\left(\frac{\Delta REC_{it}}{AL_{it-1}}\right)$ $+ \beta_{2i}\left(\frac{AFT_{it}}{AL_{it-1}}\right) + \varepsilon_t$	*Discretionary accruals* (ε_t): accumulations, total *accruals*, TA_{it} (net working capital minus: cash, debts and depreciation), revenue variation (ΔREC_{it}), total fixed assets (AFT_{it}) and net assets (AL_{it-1}).	Jones (1991).
$TCA_{it} = \alpha + \emptyset_{1i}CFO_{i,t-1} + \emptyset_{2i}CFO_{it}$ $+ \emptyset_{3i}CFO_{i,t+1} + \emptyset_{4i}\Delta REC_{it}$ $+ \emptyset_{5i}AFT_{it} + \varepsilon_i$	*Discretionary accruals* (ε_t): operating cash flow ratio (CFO_{it}), revenue variation (ΔREC_{it}), total fixed assets (AFT_{it}).	Dechow & Dichev (2002); Francis et al. (2005)
$MP_{it} = \alpha + \beta_e EPS_{i,t-1} + \beta_{bv}BVS_{i,t-1} + \varepsilon_t$	Relevance of stock market price (MP_{it}): relationship between earnings per share of the company ($EPS_{i,t-1}$) accounting value per share of the company ($BVS_{i,t-1}$), lagged.	Ohlson (1995)
$Smoothness_{it} = \frac{CV_{\Delta I}}{CV_{\Delta s}}$	Results smoothness index: relationship between the coefficients of variation of results ($CV_{\Delta I}$) and sales ($CV_{\Delta s}$) of the company.	Eckel (1981); Almeida et al. (2012)

Source: Elaborated by the authors.

3.2 Measurement of the Corporate Governance Index

The Corporate Governance Index of the companies was measured from variables identified based on literature and the use of factor analysis. The evaluation of Corporate Governance structures through factorial analysis is recurrent (Faria et al., 2017; Issarawornrawanich & Wuttichindanon, 2019; Gastaud Maçada et al., 2019). Only the variables interlinked with the

Corporate Governance structure of the companies were selected, with a correlation level greater than 40% among them. Because the factor analysis allows to work with a greater number of variables, mainly correlated. Therefore, the final sample was composed of 36 variables presented in Table 2.

Table 2
Variables attributed to companies' Corporate Governance practices

Variable
Ordinary shares; Goodwill (intangible asset); Working capital per share
Capital invested; Cost of goods sold; Depreciation and amortization
Advance expenses; financial expenses; dividend per share; ordinary dividends
EBITDA (Earnings before interest, taxes, depreciation and amortization)
Free cash flow; Free cash flow per share; Income tax; Minority interest
Investment in premium (variation in premium between the years t-1 and t plus amortization in t)
Profit before interest tax; Profit after taxes; Net profit
Profits before taxes; Net operating profit after taxes (NOPLAT)
Other revenues; Total net equity; Financial Revenue; Net Revenue per share
Total revenues; Operational Result after Depreciation and Amortization
Return on gross investment (ROGI); Return on gross assets (ROGA)
Return on invested capital; Return on equity (RONA)
Sustainable growth rate; total active assets; Total Current Liabilities
Compensation of taxes on assets for own use; Net sales

Source: Elaborated by the authors.

The index estimation procedure consisted of reducing this number of variables through factor analysis to a smaller set of variables that express the same information initially contained in the larger set of correlated variables (Horst, 1965; Kim & Mueller, 1978). Basically, the construction of the Corporate Governance Index of this research went the way described in Figure 1. According to Kline (2014), the factor analysis is widely used in psychology research and applied social sciences.
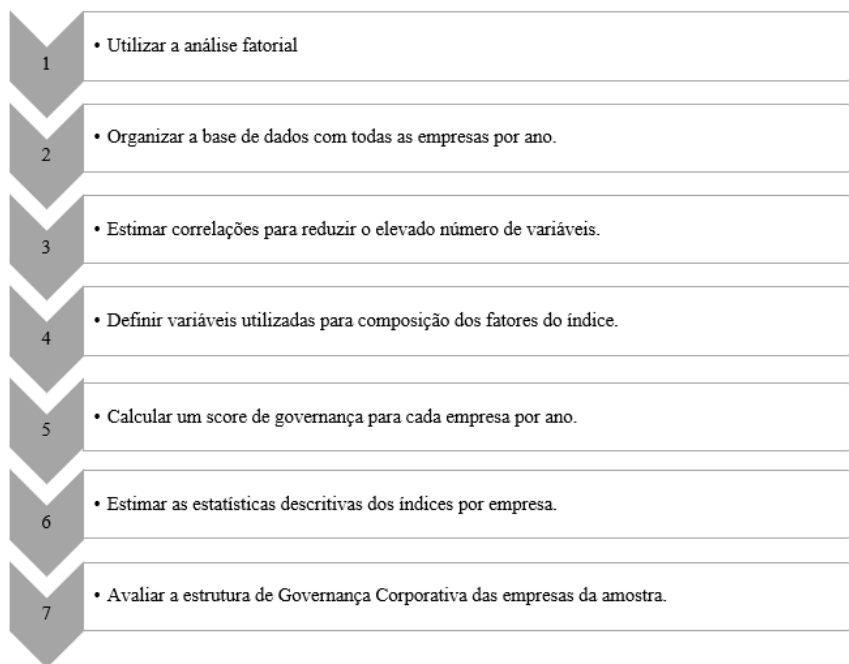

Figure 1. Construction of the Corporate Governance Index
Source: Elaborated by the authors.

With the technological advent, the method, as well as other more complex statistical methods, have become more accessible. This technique is also the most recurrent in the literature willing to estimate Corporate Governance indexes, which consist of selecting and using as an indicator of governance practices and structures the first component resulting from factor analysis, since the first component has the highest factorial load compared to the others, that is, it represents most of the information of the analysis. In the analysis, the French and Brazilian companies showed little variability in the Corporate Governance index in explaining the variables related to the return of invested capital, dividends of preferred shares, growth rate, sales and cycles (of payment, receipt, cash and stock). Whereas most of the variability in corporate governance was explained by variables related to earnings (total revenues, sales and cash flow), profitability (net operating profit, profits before and after taxes, net profit and earnings per share), assets and liabilities (fixed assets, total assets and circulating liabilities), shareholders' equity (ordinary shares), investments and operating results after depreciation and amortization.

3.3 Financial Performance Indicators

The companies' Financial Performance was measured from eight variables, (i) EBITDA, *Earning Before Interest Tax and Amortization*, (ii) EBIT, *Earning Before Interest and Tax,* (iii) LL, Net Income, (iv) ROGI, Return on Gross Investment, (v) ROIC, Return on Investment Capital, (VI) RONA, Return on Net Assets, (vii) ROE, Return on Equity and (viii) ROA, Return on Asset.

The Financial Performance Indicators were associated with the Quality of Accounting Information and the Corporate Governance Index of the companies through the analysis of the correlation between them, the statistical significance of the Pearson correlation coefficients among the variables estimated in the study was estimated and tested.

A Qualidade das Informações Contábeis e a Governança Corporativa exercem influência sobre a percepção de investidores acerca das empresas de capital aberto. Thus, this research explores the relationships among the Quality of Accounting Information, Corporate Governance and Financial Performance of Brazilian and French Companies.

Given the above, it is expected that the results demonstrate the influence of the quality of Accounting Information on the Financial Performance of the Company. It is also considered possible influence of Corporate Governance Instruments on the Companies' Financial Performance . Finally, the relationships among these three representative dimensions of company management were investigated: quality, governance and performance. Relationships are expected among the three aspects of publicly traded companies.

4 ANALYSIS OF RESULTS

4.1 Relationship between Quality of Accounting Information and Financial Performance

The comparison between Quality of Accounting Information and Financial Performance of Companies in France and Brazil was performed with the measurement and statistical significance test of the correlation coefficients between variables of Quality Models and Financial Performance variables. The Financial Performance was measured in the survey based on eight *proxies*: (i) EBITDA, (ii) EBIT, (iii) LL, (iv) ROGI, (v) ROIC, (vi) RONA, (vii) ROE and (viii) ROA, variables generally made available in the financial statements and reports of the companies. There is no section directed to the persistence model, since the variables used also subsidized the calculation modeling, so the section would be redundant with part of the correlation section of *the accruals*. Table 3 describes the correlations and the results of the tests of the Quality Indicators of Accounting Information and Financial Performance of French companies.

Table 3

Correlation between the quality variables of accounting information and Financial Performance of companies in France

	TCA_it	CFO_{i,t-1}	CFO_{i,t}	CFO_{i,t+1}	ΔREC_it	AFT_it
				Accruals		
$EBITDA_{it}$	-0.01	0.01	0.00	0.00	0.00	0.05 ***
$EBIT_{it}$	-0.01	0.01	0.01	0.00	0.00	0.04 ***
LL_{it}	-0.02	0.01	0.02 **	0.00	0.01	0.05 ***
$ROGI_{it}$	0.01	0.02	0.03 ***	0.01	0.00	0.01
$ROIC_{it}$	0.00	0.00	0.01	0.00	0.00	0.00
$RONA_{it}$	0.01	0.00	0.00	0.00	-0.01	-0.03 **
ROE_{it}	0.00	0.01	0.01	0.00	-0.02	0.03 *
ROA_{it}	0.00	0.04 **	0.05 ***	0.00	-0.01	-0.01

	MP_{it}	$EPS_{i,t-1}$	$BVS_{i,t-1}$			
		Relevance of price				
$EBITDA_{it}$	-0.03	-0.01	0.00			
$EBIT_{it}$	-0.03	-0.01	0.00			
LL_{it}	-0.02	0.00	0.00			
$ROGI_{it}$	-0.02	0.00	0.00			
$ROIC_{it}$	-0.01	-0.01	-0.02			
$RONA_{it}$	0.03 *	0.00	0.01 *			
ROE_{it}	0.02	0.00	0.01			
ROA_{it}	0.08 ***	0.01	0.03			

	$CV_{\Delta s}$	$CV_{\Delta I}$	$CV'_{\Delta I}$	$Smoothness^*_t$	$Smoothness^{*'}_t$	
			Smoothness			
$EBITDA_{it}$	-0.01	-0.02	-0.03 *	-0.01	-0.02 ***	
$EBIT_{it}$	-0.01	-0.02	-0.02 *	-0.01	-0.02 ***	
LL_{it}	-0.01	-0.01	-0.03 *	-0.01	-0.01 ***	
$ROGI_{it}$	0.00	0.01	0.00	0.00	-0.02 ***	
$ROIC_{it}$	-0.01	0.00	-0.01	-0.02	0.01 ***	
$RONA_{it}$	-0.01	0.00	-0.03 **	0.00	-0.01 ***	
ROE_{it}	0.00	0.00	-0.03 *	-0.03	0.00 ***	
ROA_{it}	0.00	-0.02	-0.03 **	-0.02	-0.01 ***	

Note. ***, **, * statistical significance at 1%, 5% and 10%.
Source: Elaborated by the authors.

According to Table 3, ROA presented significant and positive correlation with the current and cash flows lag ($CFO_{i,t-1}$ and CFO_{it}), variables of persistence of profit and *accruals*. LL and ROGI had significant and positive correlation with the current cash flow. The financial performance variables EBITDA, EBIT, LL, RONA and ROE revealed that there is a significant correlation with the AFT, the *accruals* variable, and the correlation between RONA and the variable was negative and the other correlations were positive.

Regarding the Financial Performance and the variables about the relevance of the price of French companies, RONA presented a significant and positive correlation with the MP and the BVS, and also the ROA indicated a significant and positive correlation with the MP. This correlation was 0.08 and was the strongest among the other estimated correlations. However, the correlations of Quality of Accounting Information and Financial Performance in terms of intensity are classified as weak (ALVES e PEDERIVA, 2015, p. 274).

The correlations between Financial Performance and Smoothness were more evident than the correlations of the other models of Quality of Accounting Information. The variables EBITDA, EBIT, LL, RONA, ROE and ROA had a significant and negative correlation with the coefficient

of variation of EBITDA ($CV'_{\Delta I}$). In addition, all the Financial Performance variables showed significant correlations with the Eckel smoothness index measured based on the methodology of Almeida *et al.* (2012), with EBITDA as *a proxy* of earnings ($Smoothness_t^{*}$'). The ROIC and ROE correlations were positive, as they were negative from the other Financial Performance Indicators with the smoothness index. Table 4 presents the results of correlation and tests with the indicators of Brazilian companies.

Table 4
Correlation between the quality variables of accounting information and Financial Performance of companies in Brazil

	Accruals					
	TCA_{it}	$CFO_{i,t-1}$	$CFO_{i,t}$	$CFO_{i,t+1}$	ΔREC_{it}	AFT_{it}
$EBITDA_{it}$	-0.02	-0.01	-0.01	-0.02	0.18 ***	0.05 ***
$EBIT_{it}$	-0.01	-0.01	-0.01	-0.01	-0.16 ***	0.02
LL_{it}	0.00	0.00	-0.01	-0.01	-0.33 ***	0.00
$ROGI_{it}$	0.00	-0.01	0.00	0.04	0.02	0.00
$ROIC_{it}$	0.00	0.04	0.03	0.03	0.00	0.00
$RONA_{it}$	0.00	0.02	0.01	0.04	-0.01	0.00
ROE_{it}	0.00	0.00	0.00	-0.02	-0.02	0.00
ROA_{it}	0.00	0.02	0.01	0.03	-0.02	0.00
	Relevance of price					
	MP_{it}	$EPS_{i,t-1}$	$BVS_{i,t-1}$			
$EBITDA_{it}$	-0.01	0.00	0.02			
$EBIT_{it}$	-0.01	0.00	0.02			
LL_{it}	-0.01	-0.01	0.02			
$ROGI_{it}$	-0.02 *	-0.02	0.00			
$ROIC_{it}$	0.00	0.01	0.00			
$RONA_{it}$	-0.01	0.00	0.00			
ROE_{it}	0.00	0.02	0.00			
ROA_{it}	-0.01	0.01	0.01			
	Smoothness					
	$CV_{\Delta s}$	$CV_{\Delta I}$	$CV'_{\Delta I}$	$Smoothness_t^{*}$	$Smoothness_t^{*'}$	
$EBITDA_{it}$	0.02	0.06 *	0.02	-0.01	0.03 ***	
$EBIT_{it}$	0.03	0.07 **	0.03	-0.02	0.04 ***	
LL_{it}	0.03	0.08 **	0.03	-0.01	0.00 ***	
$ROGI_{it}$	0.02	0.08 ***	0.02	-0.03	-0.01 ***	
$ROIC_{it}$	0.01	0.00	0.02	0.00	-0.01 ***	
$RONA_{it}$	0.01	0.02	0.03	0.00	0.00 ***	
ROE_{it}	-0.02	0.03	0.01	-0.03	0.00 ***	
ROA_{it}	0.01	0.01	0.04	-0.03	0.01 ***	

Note. ***, **, * statistical significance at 1%, 5% and 10%.
Source: Elaborated by the authors.

According to Table 4, the variables EBITDA, EBIT, LL, RONA and ROE revealed a significant correlation with the ΔREC and the AFT, variables of *the accruals* model, and the two correlations of EBITDA and EBIT with the AFT were positive, while the others were negative. It is also noteworthy that the significant and positive correlation of EBITDA with AFT was also a result found in the case of French companies.

Regarding the Financial Performance and the variables about the relevance of the price of Brazilian companies, only the correlation between ROGI and MP was statistically significant and, still, negative. In this comparison of Financial Performance Indicators with indicators of the price relevance model of Brazilian companies, no results were found convergent with the analysis of the

indicators of the companies in the French market. Thus, it can be said that in the Brazilian market ROGI is related to the price of companies, since in the French market there are more quality variables of Accounting Information associated with Financial Performance (RONA/MP; RONA/BVS).

The correlations between Financial Performance and Smoothness were more evident than the correlations of the other models of Quality of Accounting Information, not only for the Brazilian companies but also for the French ones. The variables EBITDA, EBIT, LL and ROGI had a significant and positive correlation with the coefficient of variation of profit, unlike the correlations for French companies, whose correlations are confirmed with the EBITDA coefficient. In addition, all the Financial Performance variables showed significant correlations with the Eckel (1981) smoothness index measured based on the methodology of Almeida *et al.* (2012), with EBITDA as *a proxy* of earnings ($Smoothness_t^{*\prime}$). Furthermore, the ROGI and ROIC correlations were negative, and the correlations of the other indicators with the index were positive.

The comparisons between Corporate Governance structures and the Financial Performance of the companies were estimated, respectively, based on the *Corporate* Governance *scores* measured with the index and the eight Financial Performance Indicators of the companies: (i) EBITDA, (ii) EBIT, (iii) LL, (iv) ROGI, (v) ROIC, (vi) RONA, (vii) ROE and (viii) ROA. These Financial Performance Indicators were the same as those used in this research in relation to the Financial Performance of the Companies and, generally, are made available in public financial statements and reports. Table 5 shows the correlations between Corporate Governance and Financial Performance in the French market.

Table 5
Correlation between Corporate Governance and Performance of Companies in France and Brazil

Governance					
	France		**Brazil**		
CG	*Scores*		**CG**	*Scores*	
$EBITDA_{it}$	0.92	***	$EBITDA_{it}$	0.69	***
$EBIT_{it}$	0.81	***	$EBIT_{it}$	0.62	***
LL_{it}	0.59	***	LL_{it}	0.46	***
$ROGI_{it}$	0.05	***	$ROGI_{it}$	0.02	
$ROIC_{it}$	0.00		$ROIC_{it}$	0.03	**
$RONA_{it}$	-0.06	***	$RONA_{it}$	0.00	
ROE_{it}	0.02		ROE_{it}	0.04	***
ROA_{it}	-0.01		ROA_{it}	0.05	***

Note. ***, **, * statistical significance at 1%, 5% and 10%.
Source: Elaborated by the authors.

According to Table 5, the correlations between EBITDA, EBIT, LL, ROGI and RONA indicators and scores were statistically significant for France. In this case, it should be noted that the correlations among EBITDA, EBIT, LL, ROGI and RONA with scores were positive and the correlation of RONA with them was negative. It is also noteworthy that the correlations of the EBITDA, EBIT and LL indicators with the scores were the strongest found in this research. This classification is in accordance with the correlation levels of Alves and Pederiva (2015).

The significant correlations of ROGI and RONA were negative, and there was no correlation between ROIC and the scores of French companies. Whereas Brazil's results showed that the correlations between the EBITDA, EBIT, LL, ROIC, ROE and ROA indicators and scores were statistically significant; in the case of Brazilian companies there were more significant

correlations than in the case of French companies. All the significant correlations were positive and the correlations between EBITDA, EBIT and LL with scores were the strongest found in this research, both for Brazilian and French companies. No correlation was identified between RONA and scores for Brazilian companies, unlike the case of French companies, for which no correlation was identified with ROIC.

Table 6 presents the main findings in terms of estimates of the quality of Accounting Information in the French and Brazilian markets. In general, the models indicated better quality of Accounting Information in French companies compared to Brazilian companies. However, there were dispersions (deviations) between companies and countries, given the differences in the contexts of each market.

Table 6

Summary of results of Quality Models of Accounting Information

Models	France	Brazil
Persistence of gains	Not identified, beta statistically significant, but negative. The persistence of gains of French publicly traded companies has not been identified.	Not identified, beta statistically significant, but negative and close to zero. The proximity that reflects temporary gains of Brazilian companies.
Accruals	Identified, significant alpha and significant and negative influence of total fixed assets by the Jones model (1991). On the other hand, *accruals* were not identified according to the model of Francis *et al.* (2005), being relevant cash flow lag, variation of revenues and total assets. Evidences of discretionary *accruals* , results management, the part not explained by the model was high, but with low explanatory power of the models.	Identified, significant alpha and significant and negative influence of variation of revenues by the Jones model (1991). However, the *accruals* were not identified according to the model of Francis *et al.* (2005), being relevant only the variation of revenues that has a positive influence on *the accruals*. Evidences of discretionary *accruals,* part not explained was high, but with low explanatory power of the models.
Relevance of price	Relevance of profit and equity per share on price. Profit has a negative influence on the model and equity has a positive influence. The incremental influence of equity was greater, and this model presented high explanatory power.	There was no relevance of the profit of Brazilian companies and the persistence model indicated temporary gains. Equity exerts significant and positive influence on the price of shares, confirmed in the incremental model. The relevance model also presented good explanatory power.
Smoothness	Presence of smoothness in the first quartile, a quarter of the estimates indicated smoothness of the results of the companies. Smoothness present both according to the original Eckel index (1981) and the index measured according to the methodology of Almeida *et al.* (2012).	Presence between first and second quartile, practically half of the estimates indicated smoothness of the results of the companies. Presence of smoothness attested both according to the Eckel index (1981) and the index measured according to the methodology of Almeida *et al.* (2012).

Source: Elaborated by the authors.

Table 7 presents the main aspects identified in terms of the adoption of Corporate Governance practices and structures in French and Brazilian companies. There is still no consensus about the set of variables and not a universal methodology for measuring or evaluating Corporate Governance in publicly traded companies. In short, the French companies presented more consolidated structures than the Brazilian companies, and evaluating Corporate Governance persists as a challenge in the theme, given the high variability of companies and the high

investment that the adoption of good practices of governance demand (Fallatah & Dickins, 2012; Steger, 2015; Silva et al., 2016; Elston, 2019; Maestri et al., 2019).

Table 7
Summary of results of Corporate Governance indexes

Models	France	Brazil
Governance index	Greater variability of Corporate Governance explained by gains, profits, assets, shareholders' equity, investments and operational results of companies. Three factors were sufficient in the estimate, with a good performance of the factors that composed the index.	It confirms the greater variability of Corporate Governance explained by gains, profits, assets, shareholders' equity, investments and operational results of the companies, as well as the good performance of the factors that composed the estimated indexes.
Governance *scores*	Means and median *scores* were distinct and reflected different Corporate Governance structures among French companies. The *scores* allowed to conform the adoption of practices by some companies, as well as evidence the expansion of the adoption of Corporate Governance practices.	Mean and median were also distinct, showing different business structures. *The scores* tended to be low, but closer to each other, indicating little practice of corporate governance and, mainly, little difference in the adoption of practices among them.

Source: Elaborated by the authors.

Table 8 presents the main results of the investigation of the relationships between the Quality Levels of Accounting Information and Corporate Governance with the Financial Performance of publicly-traded companies in the French and Brazilian markets. However, there were relationships between quality and performance as well as between governance and performance in both markets surveyed, and among the performance indicators, indicators of return and profitability of the companies were used and it was also noted that the correlations with profitability indicators were stronger.

Table 8
Summary of the relationships between Quality of Accounting Information and Financial Performance

Models	France	Brazil
Quality of Accounting Information and Financial Performance	The quality indicators were correlated with the Financial Performance variables. However, these correlations were low in relation to all models of Quality of Accounting Information. It is also noteworthy the predominance of negative correlations regarding the Smoothness Index.	The quality indicators were also correlated with Financial Performance Indicators, however, less frequently than in the case of French companies. There was no correlation between Persistence and Financial Performance, and the Smoothness and Financial Performance correlations were mostly positive.
Corporate Governance *and* Financial Performance	Indicators strongly correlated, mainly with respect to performance indicators regarding the profitability of companies. On the other hand, although the correlations were significant, the correlations between profitability and governance were weaker, significant only with two of the profitability indicators.	Indicators strongly correlated, mainly with respect to performance indicators regarding the profitability of companies. On the other hand, although the correlations were significant, the correlations of profitability with the governance were weaker, significant only with two of the profitability indicators.

Source: Elaborated by the authors.

Table 9 presents a synthesis of the final analysis about the initial assumptions of this research.

Table 9
Analysis of the initial assumptions of the research

Assumptions	Relationships	Results
P_1	*Qualidade → Desempenho*	The relationships among the indicators was proven, and there was statistical significance with greater frequency in relation to the quality of Accounting Information estimated by the smoothing model. Profitable French companies tend not to smoothen results, however Brazilian companies tend to smoothen results.
P_2	*Governança → Desempenho*	Proven the relationships among the indicators, however, the strongest correlations were between profitability indicators and *corporate* governance *scores*. Profitable companies tend to invest more in governance in both France and Brazil.
P_3	*Qualidade ↔ Desempenho ↔ Governança*	The relationship among quality, governance and performance of publicly traded companies in France and Brazil has been proven, although the results have shown evidence that, in France, there is more quality of accounting information and more adoption of corporate governance practices than in Brazil. It is seen that in the Brazilian case, a trend of temporary gains of companies was also noticed, especially a trend of profitable companies to smoothen their results.

Source: Elaborated by the authors.

The research attests the relationships between Quality of Accounting Information, Corporative Governance and Financial Performance In France, the companies that present quality of accounting information and adopt Corporate Governance practices tend to be companies with better Financial Performance. On the other hand, in Brazil, Quality and Financial Performance do not vary in the same sense; even with good Financial Performance of the companies, the results indicate possible manipulation of accounting information in the country. And, still in Brazil, with regard to Corporate Governance, companies that adopt good practices tend to be companies with a good financial performance. The French marked focused more the evolution than the Brazilian market, and the relationships between Corporative Government and Financial Performance were more evident in the case of the French companies.

5 FINAL CONSIDERATIONS

In this investigation, relationships were identified between Quality of Accounting Information and Financial Performance, as well as between Corporate Governance and Financial Performance by estimating the correlations between indicators. The relationships between quality and performance were statistically significant, however, they were predominantly weak. On the other hand, the relationships between governance and performance were strong, before the correlations found. Among the Financial Performance indicators, it is noteworthy that the profitability indicators are correlated with quality and governance more frequently than those of profitability.

This research presents theoretical contributions regarding the Quality of Accounting Information, Corporate Governance and Financial Performance of publicly traded companies operating in developed and emerging economies. Especially, this research attests to convergence of important dimensions of the management of companies that can still be explored by research on Quality, Governance and Financial Performance and also cause several advances in practical terms.

The central limitations of the study consisted of the difficulties of access to data and accounting information of publicly traded companies in different markets to the Brazilian market. In the measurement of Corporate Governance indexes there were also limitations. The index was penalized by the high number of variables used, given the lack of consensus in the literature on

the subject. For further studies, it is suggested that future estimates of a governance index use as a starting point the set of variables that presented greater variability of the index measured in this study, such as gains, profits, assets, shareholders' equity, investments and operational results of companies. It is also suggested the extension of the investigation of the relationships found in this research about the quality of Accounting Information, Corporate Governance and Financial Performance of publicly traded companies, recognizing the possibility of simultaneous relationships among these variables. To this end, it is suggested to use multivariate modeling methodologies, such as structural equations, which allows the expansion of results of univariate regression models and understanding of more dynamicity among the elements.

REFERENCES

Abidin, A. F. Z., Hashim, H. A., & Ariff, A. M. (2017). Ethical commitments and financial performance: evidence from publicly listed companies in Malaysia. *Asian Academy of Management Journal, 22*(2). https://doi.org/10.21315/aamj2017.22.2.3

Almeida, J. E. F. D., Sarlo Neto, A., Bastianello, R. F., & Moneque, E. Z. (2012). Alguns aspectos das práticas de suavização de resultados no conservadorismo das companhias abertas listadas na BM & FBovespa. *Revista Contabilidade & Finanças, 23*, 65-75. https://doi.org/10.1590/S1519-70772012000100005

Alves, M. A., & Pederiva, J. H. (2015). O processo orçamentário federal e a execução das despesas em dezembro: estratégia de planejamento orçamentário? *Revista de Políticas Públicas, 19*(1), 267-279. https://doi.org/10.18764/2178-2865.v19n1p267-279

Antonio, M. S., Laela, S. F., & Darmawan, R. R. (2019). Corporate Governance, Earnings Quality and Market Response: Comparison of Islamic and Non-Islamic Stock in the Indonesian Capital Market. *Academy of Accounting and Financial Studies Journal, 23*, 1-22.

Baioco, V. G., & Almeida, J. E. F. D. (2017). Efeitos do comitê de auditoria e do conselho fiscal na qualidade da informação contábil no Brasil. *Revista Contabilidade & Finanças, 28*, 229-248. https://doi.org/10.1590/1808-057x201703250

Capkun, V., Collins, D., & Jeanjean, T. (2016). The effect of IAS/IFRS adoption on earnings management (smoothing): A closer look at competing explanations. *Journal of Accounting and Public Policy, 35*(4), 352-394. https://doi.org/10.1016/j.jaccpubpol.2016.04.002

Carpes Dani, A., Pamplona, E., & da Cunha, P. R. (2019). Influência da estrutura de auditoria, conselho de administração e qualidade da informação contábil no índice market to book value de empresas brasileiras listadas na B3. *Revista Evidenciação Contábil & Finanças, 7*(2), 61-78. https://doi.org/10.22478/ufpb.2318-1001.2019v7n2.41757

Christensen, H. B., Lee, E., Walker, M., & Zeng, C. (2015). Incentives or standards: What determines accounting quality changes around IFRS adoption? *European Accounting Review, 24*(1), 31-61. https://doi.org/10.1080/09638180.2015.1009144

Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging markets review, 15*, 1-33. https://doi.org/10.1016/j.ememar.2012.03.002

Correia, L. F., Amaral, H. F., & Louvet, P. (2011). Um índice de avaliação da qualidade da governança corporativa no Brasil. *Revista Contabilidade & Finanças, 22*, 45-63. https://doi.org/10.1590/S1519-70772011000100004

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of accounting research, 51*(3), 495-547. https://doi.org/10.1111/1475-679X.12005

Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The accounting review, 77*(s-1), 35-59. https://doi.org/10.2308/accr.2002.77.s-1.35

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of accounting and economics*, *50*(2-3), 344-401. https://doi.org/10.1016/j.jacceco.2010.09.001

Dichev, I. D., Graham, J. R., Harvey, C. R., & Rajgopal, S. (2013). Earnings quality: Evidence from the field. *Journal of Accounting and Economics, 56*(2-3), 1-33. https://doi.org/10.1016/j.jacceco.2013.05.004

Eckel, N. (1981). The income smoothing hypothesis revisited. *Abacus, 17*(1), 28-40. https://doi.org/10.1111/j.1467-6281.1981.tb00099.x

Elston, J. (2019). Corporate governance: what we know and what we don't know. *Journal of Industrial and Business Economics, 46*(2), 147-156. https://doi.org/10.1007/s40812-019-00115-z

Fallatah, Y., & Dickins, D. (2012). Corporate governance and firm performance and value in Saudi Arabia. *African Journal of Business Management, 6*(36), 10025-10034. https://doi.org/10.5897/AJBM12.008

Fama, E. F. (1970). Efficient capital markets: a review of theory and empirical work, *Journal of Finance, 25*. https://doi.org/10.2307/2325486

Fama, E. F. (1991). Efficient capital markets: II. *Journal of Finance, 46*(5), 1575-1617. https://doi.org/10.1111/j.1540-6261.1991.tb04636.x

Faria, F. D. A., Maçada, A. C. G., & Kumar, K. (2017). Modelo estrutural de governança da informação para bancos. *Revista de Administração de Empresas, 57*, 79-95. https://doi.org/10.1590/s0034-759020170107

Fávero, L. P. L. (2013). Dados em painel em contabilidade e finanças: teoria e aplicação. *BBR-Brazilian Business Review, 10*(1), 131-156.

Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of accounting and economics, 39*(2), 295-327. https://doi.org/10.1016/j.jacceco.2004.06.003

Frankel, R., & Litov, L. (2009). Earnings persistence. *Journal of Accounting and Economics, 47*(1-2), 182-190. https://doi.org/10.1016/j.jacceco.2008.11.008

Gastaud Maçada, A. C., Brinkhues, R. A., Freitas Jr, J. C. D. S., & Lajara, T. T. (2019). Princípios e fatores motivadores para adoção das governanças corporativa de TI e da informação. *Revista Alcance, 26*(2), 131-147.GONZÁLEZ, J. S. https://doi.org/10.14210/alcance.v26n2(Mai/Ago).p131-147

Gujarati, D. N., & Porter, D. C. (2011). *Econometria básica*-5. Amgh Editora.

Hong, P. K., Ma, T., & Zhang, G. (2019). Accruals quality and cost of capital: Evidence from the Chinese stock market. *Journal of International Accounting Research, 18*(1), 71-95. https://doi.org/10.2308/jiar-52216

Issarawornrawanich, P., & Wuttichindanon, S. (2019). Corporate social responsibility practices and disclosures in Thailand. *Social Responsibility Journal*. https://doi.org/10.1108/SRJ-02-2017-0038

Jensen, M. C. (1976). Reflections on the State of Accounting Research and the Regulation of Accounting.

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

Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of accounting research, 29*(2), 193-228. https://doi.org/10.2307/2491047

Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of accounting research*, *54*(2), 525-622. https://doi.org/10.1111/1475-679X.12115

Liu, Y., Xie, F., & Xu, Z. (2019). Board business connections and firm profitability: Evidence from China. *Emerging Markets Finance and Trade, 55*(9), 1954-1968. https://doi.org/10.1080/1540496X.2018.1498332

Lo, K., Ramos, F., & Rogo, R. (2017). Earnings management and annual report readability. *Journal of accounting and Economics, 63*(1), 1-25. https://doi.org/10.1016/j.jacceco.2016.09.002

Maestri, C. O. N. M., Tavares, V. B., Penedo, A. S. T., Pereira, V. S., & Coelho, R. R. A. (2019). Nível de Governança Corporativa prediz o desempenho financeiro da empresa? Evidências do mercado brasileiro por meio de redes neurais artificiais. *Revista Catarinense da Ciência Contábil, 18*, 1-15. https://doi.org/10.16930/2237-766220192796

Malik, M. S., & Nadeem, M. (2014). Impact of corporate social responsibility on the financial performance of banks in Pakistan. *International Letters of Social and Humanistic Sciences*, *10*(1), 9-19. https://doi.org/10.18052/www.scipress.com/ILSHS.21.9

Mills, A., & Haines, P. (2015). Essential strategies for financial services compliance. *John Wiley & Sons*.

Moradi, M. A., & Nezami, A. (2011). Influence of ownership structure on earning quality in the listed firms of Tehran Stock Exchange. *International Journal of Business Administration*, *2*(4), 146. https://doi.org/10.5430/ijba.v2n4p146

Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. *Contemporary accounting research, 11*(2), 661-687. https://doi.org/10.1111/j.1911-3846.1995.tb00461.x

Ross, S. A., Westerfield, R. W., Jaffe, J., & Lamb, R. (2015). Administração financeira. *AMGH Editora*.

Santos, E. S., Calixto, L., & Bispo, M. F. (2019). Impact of the Brazilian Accounting Pronouncements Committee's New Guideline (OCPC 07) on the downsizing of companies' Notes. *Revista Contabilidade & Finanças, 30*, 58-72. https://doi.org/10.1590/1808-057x201806650

Shiri, M. M., Vaghfi, S. H., Soltani, J., & Esmaeli, M. (2012). Corporate governance and earning quality: Evidence from Iran. *Middle-East Journal of Scientific Research, 11*(6), 702-708.

Silva Macedo, M. A., & Corrar, L. J. (2012). Análise comparativa do desempenho contábil-financeiro de empresas com boas práticas de governança corporativa no Brasil. *Revista Contabilidade e Controladoria, 4*(1). https://doi.org/10.4013/base.2012.91.02

Silva, A. F., da Silva Macedo, M. A., & da Costa Marques, J. A. V. (2012). Análise da relevância da informação contábil no setor brasileiro de energia elétrica no período de 2005 A 2007: uma discussão com foco nas variáveis LL, FCO E EBITDA. *Revista Universo Contábil, 8*(2), 6-24. https://doi.org/10.4270/ruc.2012210

Silva, R. L. M., Nardi, P. C. C., Martins, V. A., & Barossi Filho, M. (2016). Os níveis de governança corporativa da BM&F BOVESPA aumentam a liquidez das ações? *BASE-Revista de Administração e Contabilidade da Unisinos, 13*(3), 248-263. https://doi.org/10.4013/base.2016.133.05

Souza, M. M. D., & Borba, J. A. (2016). Value relevance do nível de disclosure das combinações de negócios e do goodwill reconhecido nas companhias de capital aberto brasileiras. *Revista Contabilidade & Finanças, 28*, 77-92. https://doi.org/10.1590/1808-057x201703240

Steger, T. (2015). Corporate Governance. *Wiley Encyclopedia of Management*, 1-4. https://doi.org/10.1002/9781118785317.weom060039

Xu, H., Dao, M., & Wu, J. (2019). The effect of local political corruption on earnings quality. *Review of Quantitative Finance and Accounting, 53*(2), 551-574. https://doi.org/10.1007/s11156-018-0758-x

ACKNOWLEDGEMENTS