Audit Costs and Corporate Governance*

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ABSTRACT

The service provided by an independent audit is essential to the greater transparency and reliability of the financial reporting of public companies. The topics explored in the international literature include possible threats to the auditors' independence and the quality of their analysis, the cost of their services and their relationship with corporate governance mechanisms. The present study investigates this topic in the Brazilian context. This has become possible following CVM Instruction No. 480, which obligates the disclosure of the costs of audit and non-audit services contracted to independent audit firms. The information provided by 131 companies in the first half of 2010 was analyzed to determine the relationship between corporate governance and audit and non-audit service costs. The proxies for governance that were used are given as follows: the five largest shareholders rights mismatch, the participation in premium listing segments of the Brazilian Securities, Commodities, and Futures Exchange (Bolsa de Mercadoria e Futuros e Bolsa de Valores de São Paulo - BM&FBovespa), the existence of an audit committee and an internal audit department. The results point to a negative relationship between governance and audit costs, which suggests that the risk effect is predominant in the Brazilian market; that is, better governance practices reduce external audit's risks (legal and loss of reputation), thereby allowing them to charge less. Most studies in the international literature show a positive relationship in favor of the demand effect, but this is not consensual. According to this effect, better governance implies greater demands on the audit service, resulting in an increase in the fees charged. The relationship between non-audit service costs and good governance practices is also negative. Although studies have not shown that these costs can contribute to the loss of independence of the external audit, legislators and regulators tend to limit this practice.

Keywords: Corporate governance. Audit costs. Reference form.

1 INTRODUCTION

Assuring the investor that the capital available to companies in the form of shares will be administered in such a way that will guarantee the highest return is essential for the development of the stock market as an alternative to company financing.

The Theory of Agency identifies problems resulting from the fact that the investor is not directly connected to company management (Jensen & Meckling, 1976). One question that arises is the information asymmetry between investors and management, which can be minimized through greater transparency on the part of the latter. Transparency is therefore considered one of the basic principles of Corporate Governance (Instituto Brasileiro de Governança Corporativa [Brazilian Institute of Corporate Governance], 2009, p. 19).

The independent audit is one of the mechanisms identified as a solution to increase the transparency in management - investor relationships. Its purpose is to approve financial statements through an impartial investigation and with acknowledged technical expertise.

However, the corporate scandals in the late 1990s in the United States showed that audit firms failed in their duty to ensure the quality of information disclosed to the market. Among the explanations for this problem is the audit's possible loss of independence, which may occur when the auditor extends the connection with business customers in various ways, such as with the provision of non-audit services.

Other corporate governance mechanisms affect the independent audit, such as the Board of Directors (Conselho de Administração - CA). In Brazil, Law no. 10,303/2001 in art. 142 establishes that opining on the management report and appointing and dismissing the independent auditors should be among the CA's responsibilities. The performance of the CA can therefore affect not only the scope and cost of the service but also the independence of the audit.

Academic research has developed this topic by studying the relationship between corporate governance and the cost and independence of audit firms. The findings of the studies discussed in section 2 of the present study differ. Better governance practices can positively affect audit costs because they require more complex and extensive analysis, but governance also can affect costs negatively if it represents a reduction in the external audit's risk, thereby reducing service costs. Considering the contracting of non-audit services as a gauge of the possible loss of independence, studies investigated the effect on measures of conservatism and earnings management, and found conflicting results. However, more agreement seems to exist on the positive effect of corporate governance in reducing the cost of these non-audit services.

Thus, the present study proposes to examine how the variables associated with corporate governance relate to audit costs in the Brazilian context and to answer the following questions. Is there any relationship between the organization's level of governance and the fees paid to external auditors? Is corporate governance related to the contracting of non-audit services?

It should be noted that the present study was made possible by Instruction 480/09 - CVM (Comissão de Valores Mobiliários [Brazilian Securities and Exchange Commission]), which made the annual publication of the Reference Form obligatory. In this report, companies report the cost of external audit services and other services contracted to the independent auditor. Because this study is based in Brazil, where there is concentration of ownership, the results will add to the international literature as a result of the development of this phenomenon predominantly in environments with dispersed ownership. A sample of 131 firms was observed in 2009. The wedge between control and cash flow rights of the five largest shareholders, the participation in premium governance listing segments of BM&FBovespa[1] and the presence of an audit committee were all evaluated as proxies for governance.

The present article is divided as follows: in the second section, we review the main international studies on this topic; in the third, we address the methodology used and describe the sample; in the fourth section, the results are analyzed; in the fifth section, we present opportunities for further research; and in section 6, we present our final remarks.

2 EVIDENCE OF THE RELATIONSHIP BETWEEN AUDIT COSTS AND CORPORATE GOVERNANCE

2.1 Information Asymmetry and Independent Audit.

An efficient financial system positively influences the rate of savings in an economy, fulfilling an important role in enabling and promoting its growth. This efficiency depends on savers/investors finding investment opportunities that are appropriate to their needs (Danthine & Donaldson, 2005, p. 9-10). The investor must be confident that the resources provided in the form of buying a company's shares, for example, will be invested to generate the highest return in the long run.

Because the investor is dissociated from company management, the issue described by Jensen and Meckling (1976) as the "agency problem" emerges. The investor (the principal) must ensure that the manager (the agent) will act in his/her best interests. A number of problems can develop from this relationship, including information asymmetry.

This asymmetry means that the investor cannot distinguish "well-run" companies from "badly-run" companies and will attribute an average value to all firms that is less than

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[1] In 2000, BMF&BOVESPA created three special listing segments to those firms that wanted to accept higher Standards of good corporate governance practices. The levels were called Level 1 (Nível 1 – N1), Level 2 (Nível 2 – N2) and New Market (Novo Mercado – NM). New Market is the most demanding one where, for instance, non-voting shares are not accepted.

the fair value of the "well-run" companies. The latter will ultimately stop investing in this market, which will result in a "market for lemons" (Akerlof, 1970). The demand for greater transparency and accurate financial reporting is a way to alleviate this problem. The credibility of this information will depend, among other things, on the actions of regulators and independent audits (Healey & Palepu, 2001).

The independent audit has the key role of attesting to the veracity and accuracy of the company's financial statements on behalf of shareholders and other stakeholders. For this to happen, it is necessary that the auditor is, in fact, independent.

2.2 Incentives of an Independent Audit.

Moore, Tetlock, Tanlu, and Bazerman (2006) cite the lack of independence of American external auditors as one of the key factors in the series of financial scandals in the late 1990s and at the beginning of the following decade. The authors developed a "moral seduction theory" to explain the conflicts of interest faced by independent auditors. They list three potential threats to independence: (i) the hiring of auditors by the very managers who will be audited; (ii) the auditors assuming positions in client companies; and (iii) the provision of non-audit services.

Non-audit services may compromise independence in two ways: (i) there is a risk that the auditor becomes financially dependent on the client and, fearing the loss of revenue, avoids giving negative opinions; and (ii) the provision of consultancy services can place auditors in a position similar to that of managers, which will compromise their judgment. However, market incentives can offset these risks to the extent that the audit firm would be concern with the loss of reputation and the risk of lawsuits (DeFond, Rhagunandan, & Subramanyam, 2002).

Maintaining a reputation for higher quality and expertise generates costs for the audit firm but also can mean that the firm can charge higher prices. Craswell, Francis and Taylor (1995) identified a "brand" premium of approximately 28% to 39%.

The significance of the problem and its relation to the corporate scandals in the late 1990s in the U.S. has led regulators of that country to take certain initiatives. The SEC (U.S. Securities and Exchange Commission) in November 2000 prohibited the provision of certain types of non-audit services and demanded the disclosure of amounts contracted separately. The SOX (Sarbanes-Oxley Act of 2002 in the U.S.) banned nine types of consultancy services and required the approval of these contracts by the audit committee of the client company (Mitra & Hossain, 2007).

As noted by SOX, some internal governance mechanisms can affect the audit's independence and costs, such as the performance of the boards of directors and audit committees. The literature in this regard can be divided into two major groups, those that investigate the determinants of audit costs and those that analyze the risks and effects of the loss of independence of the external auditor.

2.3 Determinants and the Effects of Contracting Non-audit Services.

The effects of contracting non-audit services and the eventual loss of the independence of the external auditor have been studied by several researchers, using variables related to earnings management, conservatism and the issuing of caveats. The evidence, however, leads to different conclusions.

Frankel, Johnson and Nelson (2002), using various proxies for earnings management, found a positive association between the percentage of non-audit services in relation to the total contracted services (hereinafter, "extra-fee") and the indicators of earnings management. For these authors, companies that contract non-audit services tend toward greater earnings management.

Assessing auditor independence through the propensity to issue caveats on reports, DeFond, Raghunandan, and Subramanyam (2002) found no relationship with extra-fee. Market-based incentives (the loss of reputation and legal risks) seemed to be stronger than the incentive represented by retaining customers that generate higher revenue. Ashbaugh, LaFond, and Mayhew (2003) also disputed the findings of Frankel, Johnson and Nelson (2002).

According to Ruddock, Taylor and Taylor (2004), there is no evidence of a positive relationship between accounting conservatism and extra-fee. These results suggest that market incentives are predominant, and the authors concluded that the efforts of regulators to limit non-audit services do not guarantee independence.

The results of Larcker and Richardson (2003) are consistent with the previous results; however, when evaluating a particular cluster of companies, they found a positive relationship between discretionary provisions and extra-fee. The characteristics of these companies show how corporate governance can be related to the independence of the audit, including for example, the reduced participation of institutional investors and the greater participation of insiders, smaller boards and audit committees, and a lower percentage of independent members in these bodies. In assessing the governance mechanism represented by ownership structures, Mitra and Hossain (2007) concluded that the presence of sophisticated investors, such as institutional investors, induces firms to contract fewer non-audit services.

According to Zaman, Hudaib, and Haniffa (2011), monitoring by a more effective audit committee (greater independence, experience, diligence and size) has a positive relationship with extra-fee, especially for large customers. The greater complexity of activities in larger companies can explain this effect.

2.4 Determinants of the Costs of Audit Services.

Several empirical studies have sought to explain audit costs through governance mechanisms, although without being able to reach a unanimous conclusion. This relationship can be affected by two opposing forces: (i) the demand effect leads to a positive relationship between governance and audit costs, explained by the greater complexity and scope of the studies; and (ii) the risk effect shows a negative relationship because companies with better governance have better monitoring mechanisms, which can

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reduce the cost of independent auditing services (Griffin, Lont & Sun, 2008).

There is no consensus in the literature regarding the effect of ownership structure on audit costs. Niemi (2005) concludes that audit costs are lower in companies in which the managers have a majority stake than in subsidiaries of foreign firms. Variables that are indicative of the type of controller (managers, foreign or government) increase the explanatory power of the models, and in Finland, the importance of the identity of the controlling shareholder in determining the audit costs has been demonstrated. Adelopo, Jallow, and Scott (2009) evaluated the impact of the number of large shareholders (MPL- Multiple Large Shareholders). Greater monitoring by large shareholders is related to lower audit costs, while larger companies with more dispersed ownership tend to have higher costs. As for Hay, Knechel, and Ling (2008), the authors found a positive relationship between ownership concentration and audit costs. Vafeas and Waegelin (2007) identified a negative relationship between insider ownership and the determination of compensation based on long-term incentives with audit costs.

Boards of directors with greater levels of independence, diligence and experience show a positive relationship with audit costs, which is consistent with the demand effect (Carcello, Hermanson, Neal & Riley Jr, 2000; Lifschutz, 2010).

The demand effect also predominates when the characteristics of audit committees are analyzed. Effectiveness, independence, experience and size positively impact audit costs (Goodwin-Stewart & Kent, 2006; Zaman, Hudaib, & Haniffa, 2011; Stewart & Munro, 2007; Vafeas & Waegelin, 2007).

The relationship between the existence of an internal audit department and audit costs has been studied by Ho and Hutchinson (2010) in the Hong Kong market. The authors concluded that there is a relationship between these two variables, i.e., the higher the internal audit effort, the lower the external audit fees. However, Hay, Knechel, and Ling (2008) and Goodwin-Stewart and Kent (2006) found a positive relationship.

Griffin, Lont, and Sun (2008) found conflicting relationships between governance and audit costs while analyzing U.S. companies from 2000 to 2006, a period that included the passing of the Sarbanes-Oxley Act (SOX). Assessing governance variables, such as the independence of the board, the audit committee and the percentage of shares held by insiders, the authors found a positive relationship between governance and audit costs that was consistent with the demand effect. However, when governance variables interact as proxies for audit risk (previous losses, coverage by analysts and others), there is a negative relationship with audit costs, consistent with the risk effect of auditing.

3 METHODOLOGY

3.1 Sample Selection and Definition of Variables.

The study sample covered a total of 131 Brazilian companies listed on BM&FBovespa in 2009. The year 2009 was selected as the base year of the study because it was the first year that companies disclosed the Reference Form. The audit cost data used in the study were extracted from the Reference Forms published on the website of the CVM, and the remaining information was obtained from the BM&FBovespa website and the Economática® database.

Following suggestions from the international studies cited, we worked with the variables listed in Table 1 below, arranged according to their use as proxies in the questions of interest.

Table 1   *A description of the variables*

Variable	Description
Property Structure	
PTOT5	The proportion (%) of the company's total shares held by the five largest shareholders
PVOT5	The proportion (%) of the company's total shares of the five largest shareholders with voting rights
DEVRIGHT	The deviation of rights calculated as the ratio between the proportion of shares entitled to vote and total shares
PTOTBOARD	The proportion (%) of the total shares of the company owned by board members
PTOTEXEC	The proportion (%) of the total shares of the company owned by top management team
Quality of Corporate Governance	
DGOV	Dummy equal to 1 if the company participates in a premium listing corporate governance segment of BOVESPA
DNMN2	Dummy equal to 1 if the firm is traded on the N2 or NM segments of BOVESPA
DAUDCOM	Dummy equal to 1 if the company has an audit committee
Audit costs	
AUDCOST	The amount paid for external audit services (in R$)
NASERV	The amount paid for non-audit services provided by the external audit firm (in R$)
LNAUDCOST	The natural logarithm of the cost of external audit
LMNASER	The natural logarithm of the non-audit services provided by the external audit firm
AUDCOSTASSET	The audit costs in relation to total assets
DBIGFOUR	Dummy for presence of auditing firm considered as Big Four (PricewaterhouseCoopers, KPMG, Deloitte Touche Tomatsu, Ernst & Young)
DINTAUD	Dummy for presence of internal audit department

continued

Variable	Description
Control Variables	
LIQ	The liquidity of the shares of the company in 2009 as measured by Economática
PRES	The presence on the stock exchange, measured by the percentage of working days on which the company's stock was traded
TOTASSET	Total Assets (in R$)
LNTOTASSET	The natural logarithm of total assets
DEGDEBT	The degree of indebtedness, evaluated as the total liabilities divided by the shareholders' equity

All variables listed in Table 1 were observed in 2009 for the sampled companies.

3.2 Models.

The analysis of the effect of the governance variables on the audit costs was performed in two stages. Initially, univariate analyses were performed to test the difference in audit costs between companies according to governance proxies, if the company had an internal audit and if the external audit was performed by one of the big four audit firms.

Taking into account the control variables listed in Table 1, a multivariate analysis was performed using multiple linear regressions with estimation by the ordinary least squares method. The Breusch-Pagan / Cook-Weisberg test did not show the presence of heteroscedasticity in any of the models tested.

Thus, for the multivariate analysis, the following linear regression model was used:

$$LNAUDCOST_i = \alpha_0 + \alpha_1.LIQ_i + \alpha_2.LNTOTASSET_i + \alpha_3.DEGDEBT_i + \alpha_4.DEVRIGHT_i + \alpha_5.DGOV_i \\ + \alpha_6.DNM_i + \alpha_7.DBIGFOUR_i + \alpha_8.DINTAUD_i + \alpha_9.PVOT5_i + \alpha_{10}.DAUDCOM_i + \varepsilon_i$$

To analyze the effect of the governance variables on the cost of contracted non-audit services, the following model was analyzed:

$$LNNASER_i = \alpha_0 + \alpha_1.LIQ_i + \alpha_2.LNTOTASSET_i + \alpha_3.DEGDEBT_i + \alpha_4.DEVRIGHT_i + \alpha_5.DNM_i + \alpha_6.DBIGFOUR_i \\ + \alpha_7.DINTAUD_i + \alpha_8.LNAUDCOST_i + \alpha_9.DAUDCOM_i + \varepsilon_i$$

The contracting of services other than auditing to these service providers is not observed to be good practice due to the potential impairment of the independent auditor's impartiality. Therefore, the final set of analyses employed multiple linear regressions to assess the possible relationship of the costs of contracted non-audit services with governance and control variables.

4 ANALYSIS OF RESULTS

4.1 Descriptive Statistics and Correlation Analysis.

The descriptive statistics of the sample are shown in Table 2 below. 73.2% of the sample companies belong to one of the differentiated governance segments of Bovespa. The smallest company exhibited total assets of R$ 119 million and the largest R$ 87,600 million, i.e., the sample represents large companies. The deviation of rights, on average, is equal to 1.18, indicating a leverage of voting rights in relation to cash-flow rights of 18%. Approximately 60% of the sample companies have an internal audit department or area, and for 82%, the auditing service is provided by one of the Big Four auditing firms.

The data described above indicate a size bias that may compromise the generalization of the findings. The research is based on data provided for the first time by companies on the Reference Form (hereinafter RF) of 2010 with data for 2009. This report, required by CVM Instruction no. 480 from December 7, 2009, is quite extensive and detailed, and some companies did not fill it completely. The most relevant information for the present study, i.e., the cost of the independent auditing service, was not provided by 22 companies, which contributed to the reduction of the sample size.

| **Table 2** | *Descriptive statistics* |

Variable	Note	Mean	Standard Deviation	Minimum	Maximum
LIQ	131	0.24	0.53	0.00	3.54
PRES (%)	131	75.12	39.17	0.00	100.00
AUDCOST (R$)	131	1,824,693.00	4,107,944.00	19.200.00	31,000,000.00
NASERV (R$)	131	173,771.60	382,303.70	0.00	2,860,000.00
LNNASERV	131	5.95	6.09	0.00	14.87
LNAUDCOST	131	13.38	1.33	9.86	17.25
AUDCOSTASSET	131	0.00068	0.00152	0.00000	0.00950
DBIGFOUR	131	0.8168	0.3883	0	1
DINTAUD	131	0.6031	0.4911	0	1

continuous

continued

Variable	Note	Mean	Standard Deviation	Minimum	Maximum
DAUDCOM	131	0.3130	0.4655	0	1
PTOT5 (%)	131	62.32	18.97	2.00	100.00
PVOT5 (%)	131	71.25	20.88	2.00	100.00
DEVRIGHT	131	1.18	0.35	0.93	3.00
PTOTBOARD (%)	131	0.07	0.16	0.00	0.80
PTOTEXEC (%)	131	0.02	0.10	0.00	0.83
TOTASSET (millions)	131	21,700.00	87,600.00	114.00	709,000.00
LNTOTASSET	131	21.99	1.59	18.55	27.29
DEGDEBT	131	271.39	430.24	0.30	2,328.00
DNM	131	0.4733	0.5012	0	1
DN2	131	0.0840	0.2784	0	1
DN1	131	0.1756	0.3819	0	1
DGOV	131	0.7328	0.4442	0	1

The statistics refer to the observations of the sample of 131 companies in 2009. The descriptions of the variables are shown in Table 1.

The correlation matrix for the main study variables is shown in Table 3 below. Among the variables of interest, there are some significant correlations, such as the the five largest shareholders rights mismatch (DEVRIGHT) and being listed in the New Market (DNM), which will not be used simultaneously in the regression models. Positive correlations also can be observed be-tween the presence of an internal audit (DINTAUD), an audit committee (DAUDCOM) and hiring one of the Big Four as the external auditor (DBIGFOUR). Thus, multiple regression models were all tested through the VIF statistics to check for possible multicollinearity problems.

Table 3 *Correlation matrix*

	liq	dbigfour	dintaud	daudcom	pvot5	devright	lntotasset	degdebt	dnm
dbigfour	0.015	1							
dintaud	**0.246**	**0.180**	1						
daudcom	-0.095	-0.149	**0.211**	1					
pvot5	**-0.440**	0.090	-0.063	0.002	1				
devright	-0.097	0.168	0.037	**-0.173**	**0.309**	1			
lntotasset	0.026	-0.110	-0.083	**0.315**	0.018	-0.029	1		
Degdebt	0.038	-0.049	-0.130	0.143	0.014	-0.077	**0.250**	1	
Dnm	-0.092	0.014	-0.012	0.119	-0.017	**-0.190**	**-0.241**	-0.023	1
dgov	**-0.195**	-0.018	-0.032	0.110	0.015	-0.141	0.047	-0.044	0.572

Values in bold indicate statistical significance at 5%.

4.2 Difference between Mean Values of Audit Costs.

The objective of the present study was to evaluate how variables associated with corporate governance relate to audit costs. Based on the literature reviewed in section 2, we can expect both a negative and a po-sitive relationship between corporate governance and audit fees. In terms of the negative relationship, the risk effect is predominant, with higher levels of governan-ce reducing the external auditors' risk and the amount of effort required from them resulting in a decrease in costs. A positive relationship suggests that companies with higher levels of governance, in the search for gre-ater transparency and quality of information provided to the market, demand more of external auditors, cha-racterizing the demand effect, which can lead to higher costs. Table 4 shows the results of the comparisons of mean values of the logarithm of audit costs according to governance characteristics. The mean values presen-ted in the third column (Mean = 1) are obtained in the set of companies with the characteristic described in the Variable column.

Significant differences are observed in the audit costs between participant and nonparticipant companies of the New Market, with the New Market participants displaying lower mean audit costs. The mean cost of the audit service is also significantly lower for companies that have an audit committee; however, it is higher in companies where the service is provided by one of the Big Four firms (Deloitte, Ernst & Young, KPMG and PriceWaterhouseCoopers). In this first approach, the indicators suggest that better gover-nance can be related to lower audit costs.

	Mean		Mean		Stat.	Alternative Hyp.
Variable	No. Obs	Mean = 1	No. Obs	Mean = 0	t	diff (0 - 1) > 0
New Market	62	13.17	60	13.57	1.7559	**
Governance	96	13.34	35	13.50	0.5959	
Internal Audit	79	13.39	52	13.37	-0.0703	
Audit Committee	41	13.11	90	13.51	1.5805	*
Big Four [(1)]	107	13.53	24	12.71	-2.8031	***

Table 4 *The Tests of Mean Differences*

(1) alternative hypothesis: diff (0 - 1) <0
The tests of differences in means for the mean of the logarithm of cost audit. Values in column Mean = 1 show the mean values for companies that display the characteristic described by the variable, i.e., are part of the New Market, of a differentiated governance segment, having an internal audit area, having an audit committee and hiring one of the Big Four. Values observed in 2009. *, ** and *** indicate statistical significance values of 10%, 5% and 1%, respectively.

4.3 The Relation between Audit Costs and Governance.

The above analysis was expanded using multiple linear regressions where control variables were taken into account. Following the international literature, the control variables were selected as size (natural logarithm of total assets - LNTOTASSET), debt (total liabilities divided by stakeholder's equity - DEGDEBT) and liquidity (liquidity of most equitable share assessed by Economática - LIQ).

The results of the multiple linear regressions with audit costs as the dependent variable (in logarithm - LNAUDCOST) are shown in Table 5.

Models (2), (5) and (9) show the statistical significance for the variables deviation of rights (DEVRIGHT) and the presence of one of the Big Four as the independent audit firm (DBIGFOUR). The sign for DBIGFOUR is positive as expected, indicating that large audit firms charge more for their services, a result that keeps with the premium identified by Craswell, Francis and Taylor (1995). The positive relationship of audit fees with the wedge between control and cash flow rights (DEVRIGHT) indicates a negative relationship between governance and audit costs. The greater the rights mismatch, the further from the one share - one vote principle, which is recommended as one of the best corporate governance practices. One can expect that, in companies where the deviation of rights is greater, measured herein by the holding of the five largest shareholders, there are worse governance practices, and therefore, the audit firms incur greater risks and charge more for their services.

The proxies for governance DGOV and DNM that indicate, respectively, listing in some premium governance segments in Bovespa and listing in the New Market, have a negative relationship with audit costs, although this is not significant. The dummy indicating the presence of an audit committee, DAUDCOM, also shows a negative relationship with audit costs and is not significant. Despite the lack of statistical significance, the signs encourage further research to confirm if, in Brazil, better governance is really related to lower audit costs. The models in which these relationships were observed, (3), (4) and (7), inclusive, are not significant as a whole. The sample concentration in large companies may be compromising the quality of the regressions. The present study used the first audit cost information provided by companies in the FR on a mandatory basis. Some reports were not available at the time of the survey, and even among those available, there are companies that have not provided information on audit costs.

The presence of an internal audit area, in keeping with the empirical studies reviewed, may have a positive or negative relationship with the cost of the audit service. The negative sign is explained by the risk effect because the internal audit service can reduce the external auditor's risk of service provision. A positive relationship indicates the predominance of the demand effect, where better organized companies require more specialized analyses from their external auditors. In the analyzed sample, the variable that identifies the presence of an internal audit department (DINTAUD) shows a negative relationship with audit costs, although it is not statistically significant.

Table 5 *Linear regression analyses - dependent variable: audit costs*

Dependent variable: LNAUDCOST																		
Variable	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	
LIQ	0.142		0.201		0.116		0.113		0.131		0.152		0.098		0.097		0.200	
LNTOTASSET	0.083		0.085		0.086		0.055		0.105		0.082		0.125		0.107		0.082	
DEGDEBT	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
DEVRIGHT			0.939	***													0.737	**
DGOV					-0.160										-0.157			
DNM							-0.360										-0.243	
DBIGFOUR									0.849	***					0.895	***	0.773	**
DINTAUD											-0.042				-0.160		-0.182	
PVOT5															-0.003			
DAUDCOM													-0.477	*				
_cons	11.616	***	10.439	***	11.678	***	12.410	***	10.444	***	11.658	***	10.847	***	10.778	***	10.338	***

continued

Dependent variable: LNAUDCOST																	
N	131		131		131		131		131		131		131		131		131	
Prob > F	0.460		0.032		0.570		0.308		0.031		0.626		0.215		0.118		0.011	
R² adjust.	-0.003		0.051		-0.008		0.006		0.051		-0.011		0.014		0.036		0.085	
> VIF	1.070		1.070		1.070		1.070		1.080		1.090		1.170		1.390		1.150	

Regression analyses using data observed in 2009. A description of the variables is available in Table 1. The regressions were estimated by OLS. The presence of heteroscedasticity was not found in any of the models. *, ** and *** indicate statistical significance at 10%, 5% and 1%, respectively.

4.4 The Relation between the Cost of Non-audit Services and Governance.

The provision of other services, such as consultancy, by the independent audit firm can greatly increase the revenue generated by a particular customer, which may create a dependency relationship, compromising the impartiality and rigor that is expected of an independent auditor.

Of the 131 companies in the sample, 65 reported costs with other services contracted from the firm providing the independent audit service. Of these 65 companies, 58 contracted one of the big four audit firms, which shows that large firms tend to extend their range of activities for clients. The additional services provided by these large firms represent on average 53% of the audit service amount, which is representative.

Table 6   *The provision of other services by the independent auditor*

Additional services contracted?		Services contracted from one of the Big Four?		
		No	Yes	Overall total
No	No. Companies	17	49	66
Yes	No. Companies	7	58	65
	% mean value of the additional services relative to the cost of the audit service	97.92	53.05	57.88
	The mean cost of non-audit services (in R$)	351,143	350,105	350,217
	The mean value of ln of non-audit services	12.11	11.98	12.00
Overall Total		24	107	131

These figures suggest that further analysis of the relationship between the provision of non-audit services and corporate governance practices would be appropriate. Table 7 below presents some preliminary analysis using multiple linear regression where the dependent variable is the logarithm of the cost of non-audit services contracted from the independent auditing firms.

Although only four of the seven models are significant as a whole (models (1), (3), (5) and (6)), there is a significant and positive relationship between the deviation of rights (DEVRIGHT) and the cost of the non-audit services. As the deviation of rights increases, the quality of governance is reduced, suggesting a negative relationship between corporate governance and the contracting of non-audit services from independent auditors.

The dummy variable indicating that the company participates in the New Market (DNM) shows a negative relationship (although significant only in model (2)) with the cost of the non-audit services. This result is consistent with that described in the previous paragraph and shows that companies with better governance practices tend to avoid contracting non-audit services in addition to those from their independent audit firms, safeguarding its impartiality

and reducing potential conflicts of interest.

The service being provided by one of the Big Four, represented by the dummy variable DBIGFOUR, shows a positive relationship with the cost of the contracted non-audit services. This result is consistent with that presented in Table 6, which shows a higher incidence of non-audit services among this group of auditors. There was also a positive and significant relationship with the cost of audit services (LNAUDCOST).

Zaman, Hudaib, and Haniffa (2011) found a positive relationship between the effectiveness of the audit committee and the contracting of other services from the auditors. In our study sample, there is a positive, although not significant, relationship between the presence of audit committees (DAUDCOM) and the mean cost of non-audit services contracted from the independent auditors. As explained by Zaman, Hudaib, and Haniffa (2011), better organized audit committees with a higher proportion of independent and, therefore, more effective members tend to demand more complex and comprehensive studies from the independent audit firms, which can lead to the contracting of non-audit services. In the present study, the sign and the absence of statistical significance suggest the need for proxies that better represent the effectiveness of the audit committees in companies.

| Table 7 | Multiple Linear Regression analyses - Dependent Variable: Cost of external services |

Dependent Variable: LNNASERV

Variable	(1)		(2)		(3)		(4)	(5)		(6)		(7)
LIQ	1.272		0.808		0.946		0.755	0.841		1.046		0.999
LNTOTASSET	-0.078		-0.257		-0.009		-0.069	-0.171		-0.337		-0.099
DEGDEBT	0.002	*	0.002		0.002		0.002	0.002	*	0.002	*	0.002
DEVRIGHT	4.600	***								3.445	**	
DNM			-2.172	**						-1.672		
DBIGFOUR					3.040	**				2.128		
DINTAUD							0.989			0.154		
LNAUDCOST								1.017	**	0.636		
DAUDCOM										1.484		0.142
_cons	1.367		11.928		2.935		6.166	-4.685		-1.578		7.364
N	131		131		131		131	131		131		131
Prob > F	0.015		0.139		0.094		0.438	0.050		0.012		0.553
R² adjust.	0.063		0.023		0.031		-0.002	0.042		0.093		-0.007
> VIF	1.070		1.130		1.080		1.090	1.080		1.380		1.170
LIQ	1.272		0.808		0.946		0.755	0.841		1.046		0.999

Regression analyses using data observed in 2009. A description of the variables is available in Table 1. Regressions estimated by OLS. The presence of heteroscedasticity was not found in any of the models. *, ** and *** indicate statistical significance at 10%, 5% and 1%, respectively.

5 CAVEATS TO THE ANALYSIS AND FURTHER RESEARCH

The present research was conducted based on a publication in 2010: for the first time on a mandatory basis, the Reference Form stipulated by Instruction 480 – CVM gave detailed information on the cost of external audit services and additional services contracted from independent auditors.

Although the main results showed signs that are consistent with evidence from the international literature, they showed little statistical significance. We believe that the analyses performed encourage further research, and we identified four key opportunities for improvement, including (i) to expand and diversify the sample, (ii) to note the information reported on the Reference Form in other years, when available, (iii) to construct new proxies relating to the board of directors and audit committee, identifying characteristics of their composition, independence and efficiency, and (iv) to better identify the ownership structure and types of shareholders.

Evaluating how the contracting of non-audit services affected the independence of the external auditors was not the aim of the present research. However, the literature reviewed paves the way for further research on this phenomenon in the Brazilian market.

6 FINAL CONSIDERATIONS

The present research examined the relationship between corporate governance, the cost of external audit services and the cost of non-audit services. Considering that the data relating to audit fees and additional services provided by independent audit firms has only been available since 2010, this is, as far as we know, the first study to examine the issue in Brazil. Based on a sample of 131 companies observed in 2009 (data disclosed in 2010), the results showed a negative relationship between corporate governance and the cost of the independent audit. In the analyzed companies, the risk effect seems to predominate, i.e., better governance reduces the independent audit's risk, resulting in a fee reduction. The quality of governance was assessed by variables related to ownership structure, the participation in premium listing governance segments of Bovespa, and the existence of an audit committee and internal audit department. Although the international literature shows both positive and negative relationships, especially in developed markets with dispersed ownership, the positive relationship is more frequent. The results found herein may indicate that in situations of higher ownership concentration, such as in the Brazilian market, the effects are different.

The present study also assessed the impact of hiring one of the big four audit firms (Big Four). When one of these firms provides the audit service, the cost is higher, which seems to confirm the brand premium concept identified by Craswell, Francis and Taylor (1995).

When the independent audit firm is one of the Big Four, the contracting of additional services is more frequent (54% among Big Four clients and 29% among the clients of other audit firms). Despite studies not being consensual regarding the positive relationship between the cost of these services and the loss of independence of the audit, this practice continues to be recognized as potentially compromising the impartiality of the independent auditor. In the analyses performed, a negative relationship between the cost of non-audit services and corporate governance was found, i.e., good governance practices tend to decrease the contracting of non-audit services from the independent audit firms.

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The analysis presented herein was based on the first edition of the Reference Form, which contributed to a reduction in the sample size and, possibly, to a lower quality of reporting. These facts may explain why some results were statistically weak. The importance of the topic therefore indicates the need for further and continuing research.

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