

AUDIT OPINION AND AUDIT FEES AFTER THE SCANDALS OF ENRON: EMPIRICAL VALIDATION IN THE FRENCH CONTEXT

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ABSTRACT

This study examines the effect of regulatory changes on audit quality in the French context. The literature shows that audit fees represent one of the factors which influence audit quality by representing public data elements which can influence the earnings management. The objective of this research lies in the study of the effect of regulations regarding audits on the number of audit fees as an element which explains the independence of the auditor.

A list of hypothesis related to the approached problems is proposed followed by an overview of the different theoretical propositions which are in place. From a sample of French companies in the SBF 250 over the period 2002-2011, the results show that the analysis of the determinants of audit fees which is directly related to the acceptance of the auditor to carry out their duties, our results show that the audit fees are determined by the organizational factor of the company, financial health, and existence of Big auditor.

KEYWORDS: *Regulation, Audit Fees, Abnormal Audit Fees, Audit Quality*

Article History

Received: 28 Jun 2019 | Revised: 09 Jul 2019 | Accepted: 13 Jul 2019

INTRODUCTION

Regulators were worried by the influence of audit fees on the independence of the controllers of the accounts. The emergence of new regulations affirmed that auditors must be independent. The latter find that the amount of the audit fees constitutes for them the first data element on the audited company. This is the same as for the investors.

The auditor can have access to financial information and company accountants according to his strategic choice during the development of his evaluation of internal control and the total performance of the firm. This implies that the expenses of the auditor's inspection increase with the efforts carried out in order to decrease audit risk by formulating an unqualified audit estimate on financial statements which contain inaccuracies and important anomalies.

The audit expenses are dissociated into two types of fees. First, are the real audit fees which reflect the level of the effort carried out by the legal controller as well as the risks and the complexity of the audited. Second, are the abnormal audit fees. The unexpected expenses which can be negative or positive. These qualify the relationship between the auditor and the audited.

All the previous research shows that customers can apply pressure on the auditors. This may lead to enormous operation changes for the auditors during the execution of their missions. For this purpose, the number of

audit fees are decreased so that auditors must reduce work hours affecting the capacity to detect the anomalies and frauds of the company's financial statements. On the other hand, other researchers have found that audit quality depends on the means and necessary tools at the time of the control stage and that their absences affect the amount of the audit fees.

The statutory audit of the accounts exists with the aim of meeting the needs of the users of the financial information and the accountant. This has the important responsibility of creating confidence between the auditor and the various recipients of the company. As part of the execution of his function, the auditor has the right to observe expenses of inspection according to the size and complexity of the audited, and the risk related to the company in order to maintain the confidence of the users of the information.

The principal objective of this research is to define the determinants which influence the amount of the audit fees.

Choi and Al (2008) carried out research on audit fees, specifically evaluating the role of the legal rules relating to their determination. They made the point that the risk factors specific to each country also influence audit costs. Their conclusions found a positive effect on the association between audit fees and the level of independence of the auditor.

In addition, studies carried out on a sample of American companies (Dopuch and al. 2003) in order to test the impact of new regulations on the publication of audit fees have as an objective, the presentation of information for different recipients of the company. Particularly, good decision-making investors find that the publication of audit fees does not reflect the real independence of the auditor.

Although the role of regulations in guaranteeing a better quality of financial information has received some attention in the literature (for example, Cohen, Krishnamoorthy, and Wright, 2004), its impact on the costs of audit fees in various countries have not been explored. The regulation which is generally intended for the disclosure of good information can provide details on the methods of countable evaluation.

Moreover, they also define the responsibility of auditors to ensure a better quality of communicated information. Thus, the development of regulations is likely to change the information environment Furthermore; non-observance can involve penalties for the auditors. Bushman and Piotroski (2006) support that strict regulations of values provide strong incentives for auditors taking the right direction. Because nonconformity of regulations can subject auditors to sanctions, it can involve a higher risk of control (for example, Goshen and Parchomovsky, 2006; Mahoney, 1995).

The development of regulations for the protection of investors has a significant impact on audit fees since auditors present an effort of additional checking to reduce the risk of an audit.¹

Some studies which provide evidence of audit fees and not the audits themselves influencing independence include Higgs and Skantz, 2006; Krishnan et al., 2005; and Francis and that, 2006.

Economic theory suggests that incentives for the auditors compromising their independence depend on the importance of the customer and not on the ratio of expenses. (DeAngelo, 1981; Ashbaugh et al., 2003; Chung and Kallapur, 2003). Public attention nevertheless focused on the ratio of expenses rather than that of oversight causing the perception of the independence of the inspectors.

In the same direction Alope Ghosh, Sanjay Kallapur, and Doocheol Moon (2009), examined the relationship between audit expenses and not that of perception to the independence of the auditors².

Audit fees in and against part of the efforts carried out by the auditor indicate the risks related to the company. For the factor of the publication of the expenses of inspection shows the risk related to the business of the auditor by observing the behavior of the legal controllers. Their contribution to the companies ensures better decisions on the global level of financial information and company accountants.

More precisely, the presence of high audit fees can create the comprehension of the elevated level of the effort of the work of the audit, but it can also lead to a perception of the dependence of the auditor by contribution to the audited one.

Cleave S. Lennox (1999) expects that “the disclosure of information of the fees of audit could be used to announce greater independence and a better quality of audit”.

All the more, the publication of audit fees evolves by constituting an essential component of the indication of the quality of the financial information and will be a subject of interest in a turbulent environment characterized by complexity and a series of crises and financial scandals.

This subject will be very important within the many countries following new regulations as a result of the Enron scandal. These regulations aim to improving the quality of financial information and accounting. It will reinforce the quality of any type of control inside and outside the company, particularly the improvement of the quality of the audit.

Specialized literature breaks up the real expenses of inspection into two components, namely the expenses of normal inspection and the unexpected component called abnormal fees of inspection.

Since Simunic (1980), the literature of the expenses of inspection generally puts forth the hypothesis that the expenses of checking are a positive function of three factors specific to the customer. These include the size, complexity, and specific risk of the customer.³

Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zang (2010) think that the association between abnormal audit fees and audit quality is negative when the abnormal expenses of inspection are positive (i.e. when the real expenses of inspection are higher than the expenses of normal inspection). This is because excessive inspection expenses can create incentives for auditors to agree to customer pressure, thus eroding audit quality. However, these authors have found that the association between paid fees to auditors and audit quality (fresh association and quality) is unimportant when abnormal audit expenses are close to zero or negative. Consequently, auditors have few incentives to compromise inspection quality in this case.

Most former studies on the association of audit fees and audit quality turned their attention to the effect of the service and not auditor independence.

However, overly high inspection expenses can influence the decisions of the auditors' certificates. Moreover, even if auditors are not authorized to provide certain services other than the audit to the same customer, as required by the Sarbanes-Oxley law of 2002, audit quality can still be decreased by excessive inspection expenses. However, neither regulators nor academics have given sufficient attention to the effect of excessive audit expenses on audit quality.

Former research has provided contradictory data on the effect of audit fees on audit quality. For example, Frankel et al. (2002) reported that the management of discretionary results is negatively associated with audit fees. This suggests that auditors are less likely to give an estimate of financial information skewed by customers with high expenses than by customers with moderate expenses.

Ashbaugh and al. (2003) has advanced an association between measurements of audit expenses and discretionary management of result by taking those measurements as a starting point Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zang (2010) found that it is necessary to present association of the expenses and quality by using a wide presentation of given audit fees and other expenses of metric checking, namely, the abnormal audit fees instead of real audit fees.

The results of the work of these authors reveal that the association between the indicator of audit quality and abnormal audit fees is negligible. These results are coherent with the conclusions of former studies which use a similar method (for example, Ashbaugh et al. 2003; Chung and Kallapur 2003; Reynolds and al. 2004).⁴

The literature admits that a company can improve its estimate by paying more audit fees to its auditor, without changing its auditor. The investigation of Chen, Su, and Wu (2005) on companies which received qualified opinion between 2000 and 2002, notes that a high abnormal audit fee is associated with an improvement of the auditor's estimate.

In continuation, Therefore, their results indicate indicates that the auditor independence of the listener can be negatively affected negatively by the economic incentive provided by its customers.

Extending their sample to include all the companies in the Chinese stock market and employing several measurements of various abnormal audit fees, Fang and Hong (2008) also found a positive relationship between abnormal audit fees and the improvement of audit estimates.

However, the inclusion of all companies in decline led to skewed estimate results, wherein the companies which received an unqualified estimate from the preceding exercise were unable to improve their estimates. The correct method would be ~~is~~ to exclude these companies, while following the approach adopted by Chen, Su, and Wu (2005), or in an equivalent way, to include indicating variables for the audit estimate from the preceding exercise. When Fang and Hong (2008) excluded the companies with an unqualified estimate in their study, however, it did not have a more significant relationship between abnormal audit fees and the improvement of the audit estimate. This was true even though their sample size was larger than that of Chen, Su, and Wu (2005)⁵.

METHODS

Simunic (1980), Palmrose (1986a), Firth (1985), and Low, Tan, and Koh (1990) think that large companies normally carry out a significant number of transactions and consequently require a larger effort of work. Deposer (2000) points out that large companies need the requested information. All related work found a positive relationship between size and audit fees.

Vivien Beattie, Alan Good acre, Ken Pratt and Joanna Stevenson (2002) add that an audit of financial statements implies the examination of the accountancy, the internal monitoring system and the financial transactions of the organization. To increase the organizations will generally undertake several operations and ~~to~~ have greater credit and passive assessment, which requires more work. Thus, one expects that larger companies would be generally associated with more important audit fees. In private sector studies, the size of the audited entity was often measured by total company credit (for example, Taylor and Baker, 1981; Brinnetal 1994; Firth, 1997) and from time to time per total sales (for example, Haskins and Williams, 1988; Chan and al. 1993). In studies of local government audits, the population was used as a measure of size (for example, Rubin, 1988; Baber et al.1987)⁶.

Then the financial health of the company measured by the output of the company is measured by the ROA ratio which reflects the economic profitability of the company. Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zang (2006)

note that the ROA ratio is directly related to audit fees.

The economic rate of profitability (ROA) acts negatively on audit fees. This result, also found by Goodwin-Stewart and Kent (2006) and Broye (2009), can be explained by the fact that auditors require higher fees for the least profitable companies, i.e. those which present a possible hazard of insolvency.⁷

The working capital ratio is an indicator of a company's solvency and generally represents its aptitude to refund its debts.

Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zan(2006), show that in accordance with the former research of Simunic in 1989, liquidity is negatively associated with audit expenses.

Agency costs between shareholders and creditors increase with the company's level of financing. In this case, the auditor will increase his auditing effort while the debt level increases. This will cause a rise in its fees (Evils, 2006).

Moreover, by increasing the debt, the audited firm's risk of bankruptcy is measured by the level of increased debt in the company because the company is involved in debt, the risk of loss is important. This should result in the requirement of a large effort by the auditors and thus have a positive relationship between debt and rise in audit fees. (Simunic and Stein, 1996).

Generally speaking, regarding the formless variable of loss in the company's financial situation, the more that this variable is raised, the higher the risk. With respect to this, several researchers (Eterson and Zéghal, 1994; Pong and Whittington, 1994; Simunic and Stein,1996), have shown that audit fees increase with a disturbance in the company's financial situation, particularly with an increase in the firm's losses.

In addition in regards to the complexity of the customer company customer, the preceding studies (Francis and Simon, 1987)⁸ have shown that there is a strong probability that the level of work involved in the audit increases with the complexity of the company. This justifies the increase in audit fees. That is also confirmed in the study of Lawrence J. Abbott, Susan Parker, Gary F. Peters and K. Raghunetan in 2003.⁹

Researchers have shown that stocks and claims generally represent expensive credits to certify. This sometimes requires sophisticated techniques of audit and pledges of sincerity regarding disseminated financial information (Abbott and al. 2003; Piot, 2001; Kane and Velury, 2004). This dimension is measured by the weight of stocks and claims in total assets.¹⁰

In the end, the characteristics of the audit can be summarized in the identity of the auditor, Joint audit Membership for in the BIG Four and Qualified audit estimates of the previous year.

Audouss and coulier in 2008 who have taken as a starting point the former work advanced by Firth (1979), thinks that the large offices of Big Four auditors can incite their customers to publish more exhaustive financial information of better quality of the same opinion, Clarkson and al. (2003) have stated that Big Four auditors incite the customer companies to publish voluntary information with the aim of preserving their reputation.

Substantial research has presented a positive relationship between the number of audit fees and membership of the office belonging to one of the four great global area networks.

These effects combine to define the positive bond between Big Four auditors and fees.

Evils (2004) has raised the question of the remuneration of auditors in France and notes for this purpose an important difference between the fees of the two auditors. He has explained this difference between a principal auditor and an auditor whose role can be regarded as secondary. The literature admits that the fact of having an Big Four auditor or the fact of having two of them involves an increase in the number of audit fees paid by the company.

The qualified audit estimate is presented in the form of a recognition of the existence of an elevated level of risk for one year and is highly probable to continue throughout the following years. In order to accept this risk, the auditor requires very high fees (Simunic, D.A., 1980).¹¹

The objective of this research consists of studying the determinants of the number of audit fees as a criterion of auditor independence. More particularly, it is a question of identifying the responsibility of the independence of the audit as a mechanism of monitoring and insurance of control following the amount of the audit fee for French companies.

While taking as a starting point the results of previous studies on the emergence of new regulations we formulated our tested hypotheses as follows:

The economic variables are distinguished according to their types. These types include information on the financial health of the customer company, its risk level, and size, the existence of auditors belonging to the international network and their type of formulated opinion from which we retain the hypotheses resulting from our starting theory, starting with:

In continuation with regard to the financial statement of the company we admit the following hypotheses :

H1: the amount of audit fees is related to the financial situation of the company.

We make the hypothesis that the amount of audit fees is associated with the disturbance of the company's financial situation and that the latter is identified by the following variables:

- Company output (reduction in disturbance);
- Company liquidity (reduction in disturbance);
- Company debt (increase in disturbance);
- Loss of company results (increase in disturbance).

Other economic variables inform about the level of complexity of the customer company which contributes a positive bond with the number of audit fees:

H2: the number of audit fees related to the complexity of the company.

The amount of audit fees constitutes an indicator of the quality of the audit, particularly the independence of the auditor which is related to the level of complexity of the company identified by the following variables:

- The inventory turnover of the company;
- Receivables Turnover of the company

All the more, in addition to these economic variables is another type of variables which shows—auditor characteristics while informing on the level of its independence. This consequently influences the amount of the audit fee.

H3: the amount of audit fees is related to auditor characteristics.

Characteristics of the auditor are identified by the following variables:

- The existence of a Big 4 auditor (positive association);
- Joint audit Membership for in the BIG Four (positive association);
- The certification of a qualified audit for the previous year (positive association).

Finally, the organizational factor of company size which is positively related to the number of qualified audit fees brings us to our last hypothesis:

H4: the amount of audit fees increases with the size of the audited company.

$$FEE_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 LIQU_{it} + \beta_3 DEBT_{it} + \beta_4 LOSS_{it} + \beta_5 INVENT_{it} + \beta_6 RECEIV_{it} + \beta_7 1BIG_{it} + \beta_8 2BIG_{it} + \beta_9 OPINION_{it-1} + \beta_{10} SEIZE_{it} + \epsilon_{it}$$

Dependant Variable

The dependant variable is the amount of the audit fee reflected by the second criterion of independence for the auditor generally supported by the audit quality where one finds:

FEE: measured by the Napierian logarithm “ln” of the amount of the audit fee.

Independents Variables

- ROA: a ratio of output measured by Bottom line/Total assets.
- LIQU: working capital ratio is the relationship between the short-term credits of a company to its liabilities in the short run.
- DEBT: Rate of debt, total Report of the debts and total credit.
- LOSS: this variable is a binary variable coded by 1 if its existence is a countable loss during the exercise and 0 if not.
- INVENT: Inventory turnover measured by the relationship between the cost of the sold goods and stocks of the company.
- RECEIV: Receivables Turnover measured by the relationship between credit sales and the clients' company accounts.
- 1BIG: binary variable coded 1 if one of the regulatory Joint audits for the accounts within the customer company belongs to the BIG Four and 0 if not.
- 2BIG: binary variable coded 1 if two of the regulatory Joint audits for the accounts within the customer company belong to the BIG Four and 0 if not.
- OPINIONt-1: binary variable which takes the value 1 if the company I receive a qualified audit estimate of year T-1 and 0 if not.

- SEIZE: Company size, Napierian logarithm of the active total. ϵ_{it} : the error term and the β_i are the coefficients to be estimated.

RESULTS AND DISCUSSIONS

This study more particularly lies within the scope of countable research into the criterion of audit independence as an evaluation of audit quality.

This research requires an empirical approach following panel econometrics. For that, it is essential that all types of analysis start with some basic and descriptive statistics.

On the other hand, the dependent variable is measured by the Napierian logarithm "ln" of the amount of the audit fee. This requires a panel data regression analysis since it represents a statistical technique making it possible to establish a relationship between an explained variable and explanatory variables. Modeling must then be carried out in the presence of individual effects (fixed effect model and random effect model finished with the application of the Hausman specification test) with STATA 10 software.

The concerned population is made up of the SBF 250 indices (118 companies). Part of this information is available on the basis of Thomson data and the remaining comes from the reference documents and annual reports located on the Web site www.zonebourse.com. These companies were observed over a 10 year period from 2002 until the year 2011 which occurs around the events of this study. These events took place during 2002 for the post-Enron period and 2003 for the emergence of the French Financial Security Law (LSF). Moreover, the countable data relating to French companies were worked out according to French local standards for the period between 2002 and 2004, and International Financial Regulatory Standards (IFRS) for the period between 2005 and 2011.

Table 1: Sample Composition

Steps	Number of Companies Removed	Number of Selected Companies
Initial Sample (SBF 250)		250
Elimination of Financial Institutions	38	212
Elimination of Companies that Lack of Annual Reports	19	193
Elimination of Companies that Don't Publish Audit Fees	41	152
Missing Data	34	118
Final Sample		118

On the level of this stage, one passes from an analysis which describes in detail our variables via a descriptive technique with another exploratory analysis of the effectiveness of the results carried out on the determinants of the number of audit fees. This is why this section breaks up into two sections. The first is the single varied analyses, while an under section contains the multivariate analyses.

Table 2: Descriptive Statistics

Variables	Number of Observations	Mean	Standard Deviation	Min	Max
Fee	1180	.1526043	1.644423	-3.729702	4.325456
Size	1180	7.157921	2.278438	1.790091	12.12502
Roa	1180	3.127831	8.274496	-66.33	55.27
Liquid	1180	1.5025	1.182536	0.31	14.74
Debt	1180	23.54028	15.79558	0	110.24

Table 2 Contd.,

Loss	1180	.3025424	0.4595535	0	1
Invent	1180	36.50547	331.0441	-8.07	8996.4
Receiv	1180	5.170127	11.1726	0.27	373
1big	1180	.7720339	0.4196985	0	1
2big	1180	.3127119	.4637946	0	1
Opinion_N1	1180	.2101695	.4076016	0	1

This table of the descriptive statistics of our sample shows the following results:

The statistical dispersion of variables has been observed starting from the 1180 observations of French companies during one ten year period from 2002 to 2011.

Our dependant variable, a quantitative variable measured by the Napierian logarithm of the number of audit fees, varies between -3.729702 and 4.325456. Our sample of 118 companies from the SBF 250 has an average of 0.15 million Euros in audit fees. Therefore, these companies pay a high amount of expenses on the auditor’s job during the post-Enron era. This era is characterized by the development of new regulations and professional accounting with a standard deviation of 1.64, these results show that the auditors of our sample companies have put in an enormous effort in order to accomplish their task.

Table 3: Estimates by the Fixed, Random Effects and the Model Hausman

Variable Dépendant: Audit Fees							
Variables	Fixed-Effects			Random Effects			
	Coefficient	T-Stat	P> T	Coefficient	Z-Stat	P> Z	
Size	.4050964	13.82	0.000*	.532467	26.86	0.000	
Roa	.0005544	0.25	0.799	.0021928	1.04	0.296	
Liquid	-.0455081	-2.02	0.043**	-.0615548	-2.94	0.003	
Debt	-.0001975	-0.15	0.883	-.0005958	-0.46	0.646	
Loss	.0521747	1.67	0.096***	.0365903	1.17	0.241	
Invent	-.0000157	-0.41	0.682	2.95e-07	0.01	0.994	
Receiv	.0008848	0.78	0.437	.0009686	0.85	0.398	
1big	.231221	4.12	0.000*	.2519797	4.66	0.000	
2big	-.0176704	-0.37	0.709	.0029692	0.06	0.949	
Opinion_N1	.0286604	0.86	0.388	.0332847	1.00	0.318	
Cons	-2.874548	-13.61	0.000*	-3.777649	-24.34	0.000	
R² within	0.1944			0.1933			
R² between	0.8628			0.8627			
R²	0.8211			0.8214			
Fisher Test	24.79		0.0000				
Breusch Pagan Test Chi2				2413.50		0.0000	
Ficher / Wald Chi2	25.38		0.0000	916.85		0.0000	
Hausman Test Chi2	94.86		0.0000				
Number of Observations	1180						
Significant at Respectively of 1%, 5% et 10%							

Results of the Hausman specification test indicate that the P values or probability test is lower than 5%. This implies that the specific effects are correlated with the explanatory variables, thus it retains the model for the fixed purpose which is asymptotically not skewed because it is most effective.

Variables	Expected Sign	Fixed Effects Model		
		Coefficient	T-Stat	P> T
Size	+	.4050964	13.82	0.000*
Roa	-	.0005544	0.25	0.799
Liquid	-	-.0455081	-2.02	0.043**
Debet	+	-.0001975	-0.15	0.883
Loss	+	.0521747	1.67	0.096***
Invent	+	-.0000157	-0.41	0.682
Receiv	+	.0008848	0.78	0.437
1big	+	.231221	4.12	0.000*
2big	+	-.0176704	-0.37	0.709
Opinion_N1	+	.0286604	0.86	0.388
Cons		-2.874548	-13.61	0.000*
R ² within		0.1944		
R ² between		0.8628		
R ²		0.8211		
Ficher		25.38		0.0000
Fisher Caractéristique De La Présence D'effets Spécifiques		24.79		0.0000
Test D'hausman Chi2		94.86		0.0000
Nombre D'observation		1180		
Significant at Respectively of 1%, 5% et 10%				

In this part, we present the empirical results received from our econometric model presented se above, by analyzing the results of coefficients of the model variable. The econometric results were related to the determinant of the number of audit fees.

The signs of the coefficients estimated for most of our variables are similar to those expected. A plus coefficient increases the number of audit fees, just as a negative value varies conversely and decreases it.

This table presents the coefficients of the various variables and their probabilities indicating the significance of the reports and the influences of the explanatory variables on the explained variable.

All the more, the presented results of statistical regression show that the considered model has an explanatory power of 82.11% and is overall significant since the results of Fisher's exact test equalize to 25.38 and are significant with a threshold of 5%. Therefore one can draw the following conclusions:

Variables of the Financial Health of the Company

Company Output

However, an examination of the above table indicates that the variable output of the company (ROA) is of a very weak value that even appears to not have an effect on the number of audit fees.-Therefore, there does not exist an association between these two variables.

Moreover, the coefficient associated with the variable ROA is very low with a value which tends towards (0.0005) and is non-significant (P = 0,799).

This result is not consistent with the results of the studies of (*Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zang, 2006; Goodwin-Stewart and Kent, 2006; Broye, 2009*) which showed that credit output-indicates a level of

profitability for the company and that the auditors require higher fees from the least profitable firms. This consequently negatively influences these expenses granted to auditors.

Liquidity

An examination of the table above indicates that the variable liquid is statistically significant with a threshold of 5% and a negative effect on the number of audit fees. This last decreases according to the liquidity level of the company.

Moreover, the coefficient associated with the variable liquid has a value of -0,045 and is significant ($P = 0,043$). Indeed, a reduction of 10% in company liquidity would involve an increase of 0.45% in the number of audit fees.

This result is consistent with the results of the studies of (*Simunic 1980; Jong-Hag Choi, Jeong-Good Kim, and Yoonseok Zang, 2006*) which showed that liquidity is an indicator of solvency by presenting the aptitude of the company to refund its raising debts. An increase in this variable decreases the level of risk and ensures the protection of the company's financial situation and thus the auditors have less effort with less losses than in contrary cases. Consequently, the liquidity of the firm positively influences the auditor's expenses.

Debt

An examination of the table above indicates that the debt variable of the company has a very weak value and does not have an effect on the number of audit fees. Therefore, there does not exist an association between these two variables.

Moreover, the coefficient associated with the variable debt is of a value which tends towards $-(0.0002)$ and is non-significant ($P = 0,883$).

This result is not consistent with the results of the studies of (*Evils, 2006, Simunic and Stein, 1996*)-which showed that the risk of the audited firm is measured through the level of company debt. This can increase the risk of loss for the company, which positively results in the requirement of a large effort by the auditors. Thus expenses granted to the auditors are consequently influenced.

Loss

An examination of the table above indicates that the variable **loss** is statistically significant with a threshold of 10% and a positive effect on the number of audit fees. This effect decreases according to the liquidity level of the company.

Moreover, the coefficient associated with the variable **loss** is of a value of 0,052 and is significant. ($P = 0,096$). Indeed, the existence of a loss at the company would involve an increase in the amount of audit fees.

This result is consistent with the results of the studies of (*Simunic and Stein, 1996; Etersson and Zéghal, 1994; Pong and Whittington, 1994*) which showed that the amount of audit fees increases with the disturbance of the company's financial situation, particularly if there is accounting disaster at the audited firm. Consequently, the expenses of the auditors are positively influenced.

Complexity of the Customer Company

Inventory Turnover

An examination of the table above indicates that the variable invents of the company has a very weak value and is not significant. It does not have an effect on the number of audit fees, so there does not exist an association between these two variables.

Moreover, the coefficient associated with the variable *invent* is of a value which tends towards (0.00001) and is non-significant ($P = 0,682$).

This result is not consistent with the results of the studies of (*Francis and Simon 1987; Lawrence J. Abbott, Susan Parker, Gary F. Peters and K. Raghunetan 2003; Abbott al. 2003;Piot, 2001;Kane and Velury,2004*) which showed that the complexity of the audited firm requires a large effort and thus, an increase in audit fees positively influences these expenses granted to the auditors.

Receivables Turnover

An examination of the table above indicates that the output variable *receiv* has a very low value to the point that it does not have an effect on the number of audit fees. Therefore, there does not exist an association between these two variables.

Moreover, the coefficient associated with the variable *receiv* is very low with a value which tends towards (0.0009) and is non-significant ($P = 0,437$).

This result is not consistent with the results of the studies of (*Francis and Simon, 1987; Lawrence J. Abbott, Susan Parker, Gary F. Peters and K. Raghunetan,2003; Abbott al. 2003;Piot, 2001;Kane and Velury,2004*) which showed that the complexity of the audited firm requires a large effort and thus, an increase in audit fees positively influences these expenses granted to the auditors.

Characteristics of the Audit

Auditor Identity

An examination of the table above indicates that the variable *1big* is statistically significant with a threshold of 1% and has a positive effect on the number of audit fees. This effect increases according to the size of the auditor's office.

Moreover, the coefficient associated with the variable *1big* is of a value of 0.23 and is significant ($P = 0,000$). Indeed, the existence of an auditor within the company who belongs to the global area network would involve an increase in the number of audit fees.

This result is consistent with the results of the studies of (*Firth, 1979; Clarkson and, al.2003*) which showed that large auditing offices indicate good audit quality and consequently, positively influences the number of audit fees.

Joint audit Membership for in the BIG Four

An examination of the table above indicates that the company variable *2big* is not significant and has a negative effect on the number of audit fees. This effect falls as there is a large increase within the system of regulatory co-managers for the accounts of the company.

Moreover, the coefficient associated with the variable *2big* has a value of -0.02 and is non-significant ($P = 0,709$). Indeed, the absence of regulatory Joint audit within the company would involve an increase in the number of audit fees.

This result is not consistent with the results of the studies of (*Evils, 2004*, which showed that the existence of more than one big auditor within the company positively increases the number of audit fees and consequently influences these expenses granted to the auditors.

Audit Opinion of the Previous Year

An examination of the table above indicates that the output variable *opinion_n-1* has a positive effect on the number of audit fees, but is not significant. This effect increases with the existence of a qualified audit estimate.

Moreover, the coefficient associated with the variable *opinion_n-1* has a value of 0.03 and is non-significant ($P = 0,388$). Indeed, the existence of a qualified audit estimate would involve an increase in the number of audit fees.

This result is not consistent with the results of *Simunic, D.A., 1980*, which showed that the risk and the anomalies detected in one year can occur in the following year. This requires a large effort and thus an increase in audit fees. This positively influences these expenses granted to the auditors.

Company Size

An examination of the table above indicates that the variable **size** is statistically significant with a threshold of 1% and has a positive effect on the number of audit fees. This effect increases according to company size.

Moreover, the coefficient associated with the variable **size** has a value of 0.40 and is significant ($P = 0,000$). Indeed, an increase of 10% in company size would involve an increase of 4.05% in the number of audit fees.

This result is consistent with the results of the studies of (*Simunic 1980; Palmrose 1986a; Firth, 1985; Clarkson and al., 2003*) which showed that the level the effort of auditors increases within companies of big sizes. Consequently, having a very significant number of financial transactions checked within the company positively influences the expenses of the auditor.

Indeed, one initially notes a significant association between the amount of audit fees company liquidity and company losses that show the auditor must increase his effort as there is an increase in the disturbance of the company's financial situation.

This association is absent with company output and debt as with the complexity of the company.—One can conclude that in our studied context no effect has been observed between the number of audit fees and the weight of the stock and claims of the audited company.

All the more, a strong, significant and positive association is found between the number of audit fees and the membership of the auditor in a global area network. This shows that the presence of a BIG Four auditor reinforces audit fees. On the other hand, one does not find a bond with the existence of a qualified audit estimate made the previous year and the membership of the regulatory Joint audit for the accounts having offices with the BIG four.

Finally, it can be noted that there exists an association with the organizational factor of company size. This shows that large company auditors work hard. To explain these results, we will present in the following section an interpretation.

CONCLUSIONS

As a fundamental criterion of audit quality, auditor independence raises several questions. To ensure this characteristic of audit quality, several regulations have attempted to improve it by protecting the reliability and the transparency of financial information and accountants. Audit fees reflect information on audit quality and its level of independence by offering confidence in financial statements to the investors.

Our second chapter attempts to investigate the determinants of audit fees as a criterion of independence by reflecting the company risk levels. This requires enormous efforts carried out by the auditor and a large amount of wealth associated with a high amount of audit fees.

Within the framework of this research, we initially examined the effect of the organizational factors of the company. In particular, we looked at its size, financial situation, level of complexity and finally audit characteristics. By analyzing our output model, we found that the literature results conform with our findings with regard to two variables constituting the financial statement of company liquidity and losses, as well as company size and membership of the auditor in a global area network.

On the other hand, other variables are contrary to our findings. The existence of two big four regulatory Joint audits for the accounts and the qualified audit estimate from previous years do not have any effect nor any association with the number of audit fees. These factors regard the level of company complexity noting inventory turnover and the rotation of the clients' account along with company output and its level of debt.

In conclusion, the study of the determinants of the number of audit fees after the financial scandals shows that audit fees are related to the amplification of the disturbance of the financial situation. These same fees are strongly associated with the membership of the auditors in the BIG Four and the audited company size. This shows that in this context auditors exert more effort than requires the increase in their expenses and reflects the best audit quality and auditor independence.

The high audit fees perceived by the auditor reflect the prediction of fraud by certifying the accounts, giving a faithful and sincere image through financial statements, formulating an audited estimate and creating an effect on the quality of the results and the transparency of the financial information.

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