Executive compensation and earning management

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Abstract

Given the growing complexity of business, the need for financial reporting to include more reliable information is increased. For this information to be relevant, they must be conducted in an implementation of an efficient system of control to ensure a high quality result. The directors of listed companies may be required to affect the quality of accounting earnings as their compensation depends. Therefore, it would be wise to examine the relationship between the elements of executive compensation and earning management. The objective of this paper is to examine one of the motivations that could encourage managers to manage the accounting results, namely the managerial remuneration. The results of this study show that executive compensation is determined by the requirements of earning management. Specifically, our litters indicate that total compensation is negatively related to the absolute value of accruals. This result confirms the theoretical hypothesis alignment of interests of executives with those of shareholders.

Keywords: Executive compensation, earning management, French context.

1. Introduction

Although the technique of accounting for different elements of the accounting results meet specific accounting principles, the leader he has a significant latitude in the selection of solutions and accounting judgments, which allow him to direct the output to the desired direction , without violating the regulations.

The first assumptions about the quality of earnings were made in the context of positive accounting theory developed by Watts and Zimmerman (1986). This theory helps explain the behavior of firms in terms of accounting choices.

Through this research, we want to study the governance mechanisms that may affect the results management for financial investors. We believe that the meaning and nature of this relationship is useful for financial investors in their choice whether to invest in companies (Yeo et *al.,* (2002), Ibrahim and Lloyd (2011)).

Many researchers have been interested in determining the relationship. They focused on the power that the leaders in the selection of accounting principles. These choices would target is a reflection of the actual transactions or profits.

Niu (2006) studied in the Canadian context, the impact of the quality of corporate governance on earnings quality was wearing a number of governance mechanisms, such as the composition of the Board and the share held by the leader in the capital. In his study, the quality of earnings and the united power of the informational benefits and earning management. The obtained results reveal that the quality of governance mechanisms agrees to limit the level of discretionary accruals and amend the informational power of the profits. This is what defends the concept that corporate governance is a solution to ensure the reliability and credibility of accounting information.

However, the results remain largely controversial in countries that are considered. This motivated our research to try to investigate the relationship between executive compensation business in the French context and results management as measured by the absolute value of accruals.

Based on the fact that the firm is regarded as a nexus of contracts, managers can be encouraged to manage the results to affect the contractual relationship between the various stakeholders. These contracts are the contracts of executive compensation.

Several previous studies have attempted to examine all the circumstances that lead managers to adopt this opportunistic behavior (Sun and Hovey (2012)). Under this chapter, we are particularly interested in the total variable remuneration of directors and as a real motivation to earnings quality. In fact, in order to maximize their wealth, the officers whose compensation is based on the profit of the firm, to use discretionary accruals to manage the benefit of their company and thus affect the quality of earnings disclosed.

The objective of this paper is to examine one of the motivations that could encourage managers to manage the accounting results, namely the managerial remuneration. We will initially define the concepts and measures of earnings quality, as well as different models for

assessing the latter. The second section will examine the relationship between the elements of executive compensation and earnings quality. Research methodology, the sample and the analysis of our results will be detailed in a later section.

2. Executive compensation and earning management

The role of accounting as a vehicle for the economic reality of the firm, has actually found challenged by the various financial scandals of the early 2000s.

Although accounting appears as a fundamentally technical discipline, it is now linked with the mechanisms of corporate governance. The corporate accounting system, by itself, is not sufficient to guarantee the credibility and informational power of the accounting and financial information (Warfield et *al.,* (1995)).

Through this study, we will examine the executive compensation as a governance mechanisms that may affect the quality of earnings.

Several studies have been conducted to investigate the effect of other governance mechanisms on earnings management. Chang and Sun (2009) measured the quality of the results by the information content of stock markets and the level of earnings management.Their results show a positive and significant relationship between the informational content of accounting result published and independence of the board and the audit committee of the adoption of SOX.

The study of Cormier and Martinez (2006), in the French context, highlights the role played by governance quality of the external audit and control of the shareholding. Indeed, earnings management is greatly reduced in the presence of concentrated ownership and is almost zero in the presence of a large auditor. However, the independence of the board and the fact of using IFRS as accounting standards have no impact on the propensity of firms to manage their earnings in order to achieve the forecast announced.

Many studies have focused on the determinants of the relationship between earning management and governance mechanisms. They have focused on the power of leaders in the selection of accounting principles. These choices involved is a reflection of the actual transactions or personal profit.

In the United States, for example, Warfield et *al. (1995)* showed that the share of capital held by the leaders of American companies is negatively related to earnings management. This leads to the conclusion that when the share capital held by the leader is weak, it is motivated to make strategic accounting choices and act on the level of discretionary accruals. Its aim is therefore to limit or to reach the contractual constraints based on accounting figures from the agency theory of Jensen and Meckling (1976). These constraints are designed to discourage the leaders to focus on actions that limit the maximization of shareholder wealth.

However, Gabrielsen et *al.* (2002) on a sample of Danish companies leads to contradictory to those certified by Warfield et *al.* Results (1995). Their results indicate a positive but insignificant impact on the extent of earnings management.

The visit of these empirical studies allows us to consolidate the idea that corporate governance is an excellent means by which to ensure the credibility of accounting information. As a mechanism of governance, executive compensation in an agency perspective ensures the alignment of interests of executives with those of shareholders. In a signaling perspective, executive compensation is seen as a positive signal conveyed to the market as to the competence of leaders. This compensation would thus improve the quality of accounting earnings.

Our central hypothesis is as follows:

Executive compensation positively affect earning management.

2.1. Earnings Management and Total Compensation

In their development of politico-contract theory, Watts and Zimmerman (1986) provided the first hypothesis linking earning management to the personal enrichment of the leaders. They argue that the beneficiaries leaders bonus plans based on accounting income, are more likely to choose accounting practices which report earnings in future periods to the current period in order to maximize the variable part of their remuneration.

One of the first empirical studies that focused on the examination of this hypothesis is that conducted by Healy (1985). This author showed the existence of a relationship between discretionary accruals and executive compensation in the form of bonuses.

Healy (1985) modeled the earning management from a single leader, taking into account the fixed parameters. It assumes that the practice of management results differ depending on whether the result is before handling: Below the lower limit required to qualify for a bonus, above the upper bound of the bonus value reaches maximum and finally between the two terminals.

To test his hypothesis, Healy (1985) was based on a sample of 94 large firms over a period from 1930 to 1980. His sample was divided into three portfolios relative to the position of profit in the hierarchy: a portfolio that includes all firms whose earnings before manipulation is below the lower limit eligible for a bonus.

A portfolio's cash flow from operations which is above the upper bound. The rest of the firms in the sample are included in a third portfolio. Healy (1985) confirmed the study hypotheses: a management accruals downward is performed when the result before handling is outside of the range eligible for a bonus *"big bath"* (in order to improve future performance and thus increase the likelihood of receiving future bonus). So that management increase is observed when the result before handling is between the two thresholds.

Although the study of Healy (1985) was the first to have incorporated the actual parameters of the bonus to test the hypothesis of compensation, a major limitation of this analysis is the measurement of accruals (Gaver et *al.* (1995)). Healy (1985) did not distinguish between discretionary and non-discretionary part of accruals in their estimation, but he used the total accruals as a proxy for earnings management. Making it impossible to determine if the result is presented due to opportunistic earnings management or the influence of economic variables

on the non-discretionary accruals.

However, subsequent studies have tested the hypothesis that executive compensation have presented conflicting results. For example, Gaver et *al.,* (1995), referring to a sample of 102 firms from 1980 to 1990 confirmed the hypothesis of maximizing bonuses. But unlike Healy (1985), these authors have shown that when the result before handling is below the minimum required to qualify for a bonus, leaders perform management to higher results and vice versa.

In addition, Gaver et *al.* (1995) reported that leaders are able to manage the results of their firm to maintain their bonuses at a constant level. Balsam (1998) also found a positive relationship between executive compensation and earning management. The study by Cheng and Warfield (2005), these authors have shown that when the bonus is indexed outcomes, leaders act on the results management to receive this bonus. While Holthaussen et *al.* (1995) showed no significant results. Indeed, these studies have focused on only one component of executive compensation, the bonus.

In light of these theoretical and empirical developments, we believe that leaders are able to manage the components of accruals upwards to maximize the value of their variable compensation. Thus, we test the following hypothesis:

Hypothesis 1: The total compensation has a positive impact on the management of results

2.2. Earnings Management and stock options compensation

The explosive growth of pay for performance, mainly in the form of stock options, is a notable feature of executive compensation in recent years. The economic impact of stock options have been widely discussed in the financial literature. Several studies have found empirical evidence supporting the positive effect of stock options, the value of firms, and argue that the financial market reacts favorably to the adoption of plans pay for performance (Morgan and Poulsen (2001) , Hanlon et *al.,* (2002)). However, increasing attention has been paid to the unintended consequences of these option plans following the financial scandals that revealed a dark side of this form of compensation (Denis et *al.,* (2006)).

A positive relationship between accounting accruals and stock options has been documented, suggesting that the officers whose compensation is closely linked to performance, are more likely to manage the results of the company to maximize the value of their compensation plans. The financial market uses accounting information to infer the future prospects and the value of the firm.

An implicit argument in examining the relationship between compensation and stock options earning management is that aggressive accounting practices do affect stock prices. According to Cheng and Warfield (2005) earnings management will not make sense if two conditions are met: First, the financial markets refer to accounting profits to predict the value of the firm. Thus, earnings management may affect the stock's share price. Then, leaders can actually benefit from the increase in stock prices.

Jensen (2001) explains the positive relationship between earning management and compensation in stock options by the fact that the leaders are not paid for what they do, but

for what they do on a target. And it encourages them to play the system by manipulating the way to achieve these targets.

Generally, investors are unable to incorporate low persistence components of accruals, (Sloan (1996) This enables managers to temporarily change the market perception This practice led investors to a higher valuation.. their firm, to the extent the earnings growth may increase stock prices. Indeed, most empirical studies have examined the relationship between stock options and the likelihood of reporting erroneous reports have found a positive relationship .

For example, Stein (1989) argues that leaders interested in the evolution of stock prices in the short term are expected to manage the results of their company to increase in order to increase the stock price in the short term. Such behavior increases with the sensitivity of the utility executives to stock prices.

Johnson et *al. (2003)* examined a sample of 43 cases of fraud. They found that these firms significantly attribute a significant portion of compensation in the form of stock options, in comparison with other similar firms in the industry. More recently, Francis et *al.*(2004) suggest that the use of opportunistic accruals is more common in firms whose managers hold a large portfolio of stock options.

Similarly, Burns and Kedia (2006), Chang and Warfield (2005), Bergstresser and Philippon (2006) found that high-dose compensation stock options creates a perverse incentive. Burns and Kedia (2006) were interested in examining the relationship between restatements of accounting and the various elements of executive compensation.

According to these authors, in relation to other components of compensation packages, stock options are associated with a strong incentive for misrepresentation of income. They explained this result by the convexity of the wealth management related to stock options, which limits the probability of detecting fraud.

Chang and Warfield (2005) showed a positive relationship between compensation based on the value of shares and the use of discretionary accruals to achieve or exceed analysts' forecasts. Similarly, Bergstresser and Philippon (2006) showed that firms with executive compensation is closely linked to the value of the shares, use a lot more use of accruals increase results for profit.

The leaders are trying to maximize their wealth depends on their remuneration indexed to equity prices. This encourages them to engage in earnings management to control the profits of their firms, and keep stock prices high in the short term (Chang and Warfield (2005), Efendi et *al.,* (2006)).

Gao and Shrieves (2002) have shown that earnings management measured by the absolute value of accruals, is influenced by the design of the incentive plan for executives. More specifically, the results management is positively related to executive compensation in the form of *stock options,* while it is negatively related to the amount of wages granted to executives.

However, He et *al. (2003)* have shown that executive compensation in the form of *stock*

options reduced earnings management. Indeed, they considered whether the granting of a greater proportion of compensation in the form of shares, such as wages, reduced earnings management through research expenditures and development. On a sample of U.S. firms, the results showed that the leaders further reduce spending on research and development in order to avoid lower profits when the share of wages in the mix of compensation is important and that the *stock options* is low, and when the proportion of wages relative to that of *stock options* increases over time.

Sun and Hovey (2012), a sample of Australian firms for the period 2000 to 2006, are negative and statistically significant association between executive compensation and earning management. Their study found that executive compensation plays a role in the determination of earnings management activities.

Leaders can distort financial information to maximize their personal wealth if their motives are not completely aligned with those of shareholders.

Based on a sample of U.S. firms over a period from 1995 to 2008, Chen and Li (2011) find that executive compensation in shares is positively associated with the absolute value of discretionary accruals.

The study by Brown and Lim (2012) suggests a negative association between executive compensation and earning management.

This opportunistic behavior of managers whose compensation is based on the result, leads us to predict that earnings management is positively and significantly related compensation in stock options. Hence the following hypothesis:

Hypothesis 2: The variable compensation has a positive impact on earnings management

3. Sample, data collection and measurement of variables

In this section, we will try to describe the process of selecting the sample used in the first place, followed by the method of collecting our data.

3.1. Selection procedure of the sample

Our study focuses on a sample of French companies listed on the SBF 120, over a period from 2007 to 2010. From the initial sample we eliminated financial institutions (banks, insurance and financial companies) due to the specificity of their financial statements.

In addition, we excluded firms for which some data are not available. Determining our final sample is presented in the table below:

Table 1. Sample determination.

	Number of companies
Sample starting	120
Companies in the financial sector	18
Firms with missing data	22
Sample to be tested	80

In our final sample consists of 80 companies operating in different sectors. The sectoral distribution of selected according to the classification of Campbell (1996) companies is presented in the table below:

Data were collected from different sources. The data elements of executive compensation were collected manually from the annual reports and reference documents downloaded from the website of the AMF French companies. As for accounting data, they were collected from the database "Worldscop" data.

3.2. Definition and measurement of variables

3.2.1. *Measurement of dependent variable: Earning management*

The measure of earnings management, the absolute value of abnormal accruals is based on the model of Dechow and Dichev (2002) model that has been modified by Ball and Shivakumar (2005b).

Ball et *al.,* (2005b) incorporate asymmetric timely recognition of unrealized gains and losses in the estimation of abnormal regulation model of Dechow and Dichev (2002).

The absolute value of accruals "Absaccrual"

The absolute value of accruals estimated by the modified Jones model is the measure we use to assess the results management.

According to Gao and Shrieves (2002), Cohen et *al.* (2005) and Bergstresser and Phillippon (2006), we consider the absolute value of discretionary accruals divided by total assets as a measure of the dependent variable in the regressions presented below below.We use the absolute value of the time, both positive and negative discretionary accruals indicate earnings management behavior. The same negative or positive values of discretionary accruals are assumed to have the same meaning.

The modified Jones model is reflected in the calculation of non-discretionary accruals by taking into account the change in sales in cash (the difference between the change in total

revenue and the change in turnover credit).

: Non-discretionary accruals relating to year t.

: Net trade accounts for year t less customers in year t-1 accounts. (All model parameters are weighted by total assets at the beginning of the year t).

$$\textbf{ACND}_{i,t} = \alpha_1 + \alpha_2 * (\Delta\textbf{CA}_{i,t} - \Delta\textbf{CREANCES}_{i,t}) + \alpha_3 * \textbf{IMMOB}_{i,t} + \varepsilon_{i,t}$$

ACND $_{i,t:}$ Non-discretionary accruals for firm i in year t

ΔCA $_{i,t:}$ The variation of the CA of firm i

ΔCREANCES $_{i,t\,is}$ the change in accounts receivable for firm i in year t

IMMOB $_{i,t:}$ Gross value of fixed assets of firm i at the end of year t

TAC $_{i,t:}$ Total accruals for firm i in year t

α_1, α_2, α_3: The parameters specific to the firms

3.2.2. *Measurement of independantes variables*

Total compensation

In this work, we consider the total compensation paid to the officer for the year n. This compensation includes all of the following four components, namely: a fixed salary, annual bonus, stock options and / or shares and finally, a set of different elements: fringe benefits, fees, underwriting insurance and severance pay.

We transformed this variable using the natural logarithm to reduce the dispersion in the distribution of compensation paid to executives.

Stock options Compensation

The stock options are estimated at 25% of the exercise price as predicted by the most sophisticated options models (Core et *al.,* 1999). In other words, the estimated stock options granted during the year value is 25% of the exercise price multiplied by the total number of options granted during the year.

3.2.3. *Measures of control variables*

The size of the company: The company size is commonly used as an indicator of the political visibility of the firm. The large companies are more sensitive to political pressure that small and costs are thus subject to a greater transfer of wealth. Therefore, the business leaders seeking to escape the political pressures that month use of earning management.

Leaders are especially encouraged to manage the accounting results when the size of the company is small (Watts and Zimmerman (1986)).

We anticipate that the relationship between firm size and earning management is positive. The value of assets is used as a measure of the size of the business that we transform by a logarithmic function.

The part of the leader in the capital: To test the influence of the concentration of capital in the hands of the leaders on the level of earnings management, we chose the variable governance enjoyed by the leaders in the capital firm. This is the variable (Ceoow) measured by the accumulation of capital percentages above 5% held by management.

It is important to note the effect of a significant increase in the property manager on managerial behavior. Some research has shown that managerial ownership is associated with a lower level of managements results, suggesting that the participation of leaders in the capital of the company leads to more alignment. We assume that earnings management and positively related to the proportion of shares held by the officer.

Growth opportunities: McNichols (2000) showed that growth firms are characterized by significant discretionary accruals. Gul, Leung and Srinidhi (2000) showed that managers of firms with significant investment opportunities to use earning management to advertise their future growth opportunities.

Companies with a market to book ratio (MTOB) are characterized by a high proportion of assets with respect to investment opportunities. If the share price of its business is more sensitive to deviations from expected results when the leaders can have great incentives to use discretionary accruals to achieve the targeted results.

Cash flow Operating cash flow The phenomenon limited in the new economy sector, generally indicating a poor performance can lead to a great layout management results, Jones and Sharma (2001). Indeed, leaders of firms with a high cash flow and low growth opportunities are tempted not to distribute excess cash to shareholders and to engage in unnecessary uncertain and unprofitable projects.

Leaders have a strong appetite for such investments which brings their personal gain. These unprofitable investments negatively affect the company's results and thereby causes the decline in stock prices. To conceal the negative impact of these investments, managers can use earning management.

The ROI: The leaders are under pressure from the financial markets for the disclosure of some fluctuating results. Previous studies have shown that discretionary accruals are influenced by past and current performance of the firm (Kang et *al.,* (1995), Dechow et*al.,* (1998)).

Beneish (2001) argues that earning management depends on the performance of the firm. In addition, Ahmed and Zhou (2000) showed that high-performing companies manage their results to report their private information. While companies with poor performance are more involved in opportunistic earnings management in order to reduce the visibility of this poor performance.

The audit quality: The external audit plays a fairly important role in the control of discretionary behavior of managers. Indeed, a better quality of audit services would be able to restrict the tendency of managers to manipulate their results (DeFond and Jiambalvo (1993), Francis et *al (1999). Kim et al, (2003).)* . This audit quality is assessed by external auditors

belonging to large audit firms, namely the *Big Four*.

Leaders are even less incentive to exert an improper earnings management when the firm is audited by a *big four* firm.

To measure the control exercised by the auditors, we use a binary variable that takes the value 1 if the external auditor of the Company is one of the *Big Four* and 0 otherwise.

Table 2. Definitions and measures of the study variables

Variables	*Variable Definitions*	*Measures of variables*
Dependent variable:		
AbsAccrual	The absolute value of accruals	The absolute value of discretionary accruals measured by the modified Jones model (1995).
Independent variables:		
LNREMTOT	The total remuneration of directors	The natural logarithm of the sums of salaries, bonuses, benefits in kind and fees.
LNREMVAR	The variable remuneration of directors	The logarithm of the annual variable remuneration (the short-term incentive) assigned to the leader i under paid in year t t +1.
Control variables:		
ROI	Performance	The ratio of earnings before interest and taxes and capital invested.
LOGTA	The size of firm	The natural logarithm of total assets.
CEOOW	The share leader	Percentage of shares held by the CEO in case of overlapping functions of CEO and Chairman of the Board of Directors or by the Director General in case of separation of these functions.
MTOB	Growth opportunities	The relationship between market capitalization and book value of equity.
CASHFLOW	The cashsflows	Flows from operating activities
AUDITOR	Auditor	binary variable taking the value 1 if the firm has a Big auditor, 0 otherwise

4. Research Methodology

Determining the effect of executive compensation on earning management requires the establishment of an econometric model is to regress the proxy for earnings management on the various incentives related to the elements of managerial remuneration. Indeed, our regression model includes two forms of payment including: the total remuneration and

variable remuneration.

Moreover, this model will be estimated by considering the absolute value of discretionary accruals to capture the sense of earning management (up or down). Thus, our regression model is as follows:

$$GR_{it} = \beta_0 + \beta_1 + \beta_2 \, Rem_{it} \, Ceoow_t + \beta_3 \, Size_{it} + \beta_4 + \beta_5 \, {}_{it} \, Cashflow \quad ROI_{it} + \beta_6 + \beta_7 \, MTB_{it} Auditor_{it} + \varepsilon_{it.}$$

With:

$i = 1, ..., N$ and $t = 1, ..., T.$

Where N is the total number of enterprises, and T is the estimation period.

$\beta_{0:}$ the constant model

$\beta_{1,} ...., \beta_{8:}$ The regression coefficients.

$\varepsilon_{it:}$ the error term.

Our regression models are based on panel data, which have specificity to treat both a dimension for individuals (companies) and another dimension for time (year).

It is often useful to identify the effects associated with each individual ie: common or specific effect. This can be fixed or random. We test the existence of specific effects through the homogeneity of Fischer test.

According to the homogeneity test, we can see that the p-value of the two models tested are less than 5%, therefore, we reject the null hypothesis. We therefore affirm the existence of specific effects for these models studied.

Then, from the Hausman test, we concluded that the probability of acceptance of the null hypothesis is greater than 5% in all models tested. In this case, our models are characterized by a random effect, where the estimate is the GLS estimate.

5. Analysis and discussion of results

This section aims to present and analyze the empirical results obtained in our study. The first part will be devoted to a descriptive analysis of data.

Univariate and bivariate analyzes are also presented. This step is to provide an overview of the characteristics of our sample. We present, in a second component, a multivariate analysis using the ordinary least squares regressions.

5.1. Descriptive analysis

Table 3 presents the descriptive statistics for the dependent variables, independent and control

our study.

In terms of ownership structure, the leader has an average 24.8% of the capital, which confirms the thesis that the shareholding structure of French firms is relatively concentrated. About variable in growth opportunities, the average value in the table is 2.74.

And finally, for our entire sample, the average value of the indicator ROI is 9.60. Indeed, the latter has very disparate between -43.69 as minimum value and a maximum value as 64.05.

To measure earnings management, namely, the absolute value of accruals has a mean equal to 0.4529.

In what refers to the control variables, the proportion of firms in the sample with a listener has family donated a big oven and auditor size is of the order of 78.75%.

Table 3. Descriptive statistics

This table shows the descriptive statistics for continuous and categorical variables in our sample. Remtotale: is the sum of the fixed and variable remuneration of directors. Remvar: is the variable remuneration. Ceoow: is the percentage of shares held by directors. Logta: is the natural logarithm of total assets. MTOB: Market capitalization / book value of equity. ROI: return on investment the ratio of earnings before interest and taxes and capital invested. Cashflow: the cash flow from operating Absaccrual: The absolute value of discretionary accruals measured by the modified Jones model (1995) Auditor:. Is a binary variable taking the value 1 if the firm has a Big auditor, 0 otherwise.

	Minimum	Average	Standard Deviation	Maximum
Remtot	1090080	2278115	2398928	16500000
Remvar	0	1497425	2165461	15200000
Ceoow	0	0248	0.0774	0446
Logta	3.9273	8.5255	1.7634	12.1256
MTOB	-6.81	2.7469	1.9685	11.76
ROI	-43.69	9.6003	10.2467	64.05
Cashflow	-2696	1393.6	2874.836	19129
Absaccrual	0.0716	0.4529	0.7384	2322
Variable		Frequency	Proportion	
Auditor	0	86	0.2125	
	1	108	0.7875	

5.2. Bivariate analysis

A bivariate analysis was conducted to test the presence of a problem of multi-collinearity between the explanatory variables. The correlation matrix (Table 8) shows that the explanatory variables are weakly correlated.

It should be noted that the correlation matrix alone could be useful for precise meaning of

existing relationships between the variables studied.

For example, the variable "absaccrual" is negatively correlated with the variables of managerial ownership and profitability variable. However, it is positively correlated with the following variables namely: cash flow, growth opportunities, auditor, and the size of the firm.

Nevertheless, we can see that there are some significant differences between the total variable remuneration and variable between leadership and growth opportunities and firm size correlations.

In this case, a VIF test is necessary to detect the importance of multi-collinearity between the explanatory variables. According to this test, it is clear that the problem of collinearity does not appear to be critical since the statistics of all variables have values well below 10 (Neter, Wasserman and Kunter (1989)).

Table 4. **The Pearson correlation matrix**

This table shows the matrix corrélations.Remtotale: is the sum of the fixed and variable remuneration of directors. Remvar: is the variable remuneration.Ceoow: is the percentage of shares held by directors. Logta: is the natural logarithm of total assets. MTOB: Market capitalization / book value of equity propres.ROI: the return on investment the relationship between earnings before interest and taxes and capital invested. Cashflow: the operating cash flow.Absaccrual: The absolute value of discretionary accruals measured by the modified Jones model (1995) Auditor:. Is a binary variable taking the value 1 if the firm has a Big auditor, 0 otherwise ** and *. Statistics are significant respective thresholds 1% and 5%.

	Absoaccrual	Cashflow	Ceoow	MTOB	Logta	Auditor	Logremvar	Logremtot	ROI
Absoaccrual	1								
Cashflow	0.1896 *	1							
Ceoow	-0.0676	0.0244	1						
MTOB	0.0362	-0.0368	0.0873	1					
Logta	0.1485 *	0.5995 *	-0.0552	-0.2876 *	1				
Auditor	0.1254	0.0381	0.1157	-0.0563	0.0856	1			
Logremvar	0.1134	-0.0141	-0.5432 *	-0.0390	0.0439	0.0268	1		
Logremtot	0.1604 *	-0.0271	-0.3315 *	-0.0098	0.0604	0.1593 *	0.6540 *	1	
ROI	-0.0027	-0.0285	0.1233	-0.0219	0.0396	-0.0135	-0.1038	-0.0025	1
VIF	1.52	1.64	1.48	1.14	1.81	1.07	2.23	1.83	1.03

The test results of FIV, we can confirm the lack of correlation between the explanatory variables hypothesis, since the correlation coefficients are all less than 2.23. FIV *"Variance Inflation Factors"* of a variable, shows just how the introduction of the latter can increase the variance of the coefficients of other variables in the regression model. In this test, we can consider the existence of a collinearity problem when the VIF of any variable is greater than10.

5.3. Multivariate analysis

At this section, we present the results of regressions conducted the models studied. To better show the effect of executive compensation and control variables on the management of results.

In conducting a multivariate analysis, we will look to empirical results presented in the tables (5 and 6) and we will provide interpretations and explanations of the different observed relationships.

Tables 5 and 6 present the results of estimating regression models for total and variable remuneration represented by equations (1) and (2).

It is important first to note that the overall quality of the regression equation (1) and (2) is satisfactory (70.04% and 70.05%) *respectively.* The most relevant factor in determining the effect model fixed is *(R^2 within)* because it gives an idea of the proportion of variability of the dependent variable explained by these independent variables. In other words, 70.04% of the variation in discretionary accruals can be explained by the variation introduced into our regression model variables including executive compensation (Table 5).

The results provided in Table 5 show that there is a negative and significant relationship at the 10% of the total compensation executives and the absolute value of discretionary accruals. These results are consistent with those found by Gao and Shrieves (2002), Sun and Hovey (2012) and Brown and Lim (2012) who showed that the management of results measured by the absolute value of accruals, is influenced by the design of incentive plan for executives. More specifically, the results management is negatively related to the amount of wages granted to executives.

This result confirms the theoretical assumption of aligning the interests of executives with those of shareholders. In fact, and according to the agency theory, shareholders are implementing optimal contracts with executives whose remuneration of these in order to ensure the convergence of interests and reduce agency problems. Could pay is higher and the leader will be required to perform the contract in accordance with the expectations of shareholders.

Thus, with a higher pay, the leader would be less opportunistic, reducing its propensity to manage the company's results and to alter the contract that binds with shareholders. This behavior may be motivated by the desire to retain its leadership work and thereby avoid the risk of replacement.

The negative relationship between earnings management and the total executive compensation is in contradiction with the hypothesis of expropriation of private benefits by managers who will look for ways in which opportunistic, earning management, to appropriate the maximum private benefits and make contracts that bind with suboptimal shareholders.

In addition, the results provided by the first and second models (Tables 5 and 6) show that the size of the business and cash flows of the act both positively and significantly at the 1% on the dependent variable ie absolute value of accruals. In other words, the more the company is large, the more it manages its results on the rise. Indeed, according to the contractual political theory, business leaders operate their own discretion in the choice of accounting procedures and to reduce the political costs (Watts and Zimmerman (1986), Moses (1987), Suda (2000), Hsu and Koh (2005), Hazarika (2012)).

The relationship between firm size and the absolute value of accruals is positive. This is confirmed by several authors namely, Becker et *al,* (1998), DeFond and Park (1997), Lobo and Zhou (2006), Hazarika *(2012)*.. These authors argue that large firms are more likely to engage in handling, as small. Indeed, operations in large companies are many and complex, which can make it difficult to detect manipulations by users. Also, leaders of large companies are more likely to engage in political manipulations to reduce costs.

Moreover, the sign of the coefficient of the quality of the external auditor is positive for the first two models (Tables 5 and 6). This echoes the findings of the study Chtoutou et *al. (2001)* performed on a sample of U.S. firms and reflects the absence of significant effect of the membership of the auditor in one of the" Big Four " to limit the abusive management down or excessive overall management in samples of French firms. This result may be due to the relatively small influence of auditors major audit firms to deter leaders against abusive earnings management. Recent scandals in several international audit firms such as Arthur Andersen, etc.. undermine audit quality supposed to be guaranteed by these firms.

Table 5. *Effect of total compensation On earning management*

This table presents the results of panel data regressions for our sample (equation 1 model 1) Remtotale: is the sum of the fixed and variable remuneration of directors. Remvar: is the variable remuneration. Ceoow: is the percentage of shares held by directors. Logta: is the natural logarithm of total assets. MTOB: Market capitalization / net book value of capital propres.ROI: return on investment. Cashflow: Cash Flow Operating Absaccrual: The absolute value of discretionary accruals measured by the modified Jones model (1995) Auditor:. Is a binary variable taking the value 1 if the firm has a Big auditor, 0 otherwise .* significant at 10% ** significant at 5% *** significant at 1%.

Absaccrual	Coef.	Z
Constant	70.28	0.91
Logremtot	-10.44	-1.86 *
Ceoown	1.57	0.03
Logta	11.01	3.00 ***
Auditor	1.40	0.13
MTOB	1.88	0.81
ROI	-0.49	-1.15
Cashflow	0.01	7.93 ***
R2		0.7004
Wald chi2		156.5 ***
		0,000

From Table 6, there is a negative but not statistically significant between incentive compensation under the form of stock options and earning management relationship. This means that the variable remuneration, including the value of stock options granted to executives not to reduce the carrying handle. This result can be explained by the fact that we have taken into account for the calculation of the variable remuneration value of stock options granted and not exercised.

This confirms the idea for which the leaders who receive higher salaries tend to be less opportunistic because they are risk averse their replacement by the shareholders or the board of directors.

Table 6 also shows that the variable operating cash flow "cash flow" is positively and significantly on the extent of earnings management.

In other words, firms with a high level of cash flow are encouraged to use discretionary accruals to increase results. Thus, we can conclude that firms with a high level of cash flow are more likely to manage their results mainly on the rise. This confirms the results found by several previous studies (Shiue and Lin *(2003).* Chung et *al* (2005a), Jaggi and Gul (2006)) that support the thesis of the extent of earnings management in the presence free cash flow.

Table 6. *Effect of variable compensation on earnings management*

This table presents the results of panel data regressions for our sample (Model 2) Remtotale:. Is the sum of the fixed and variable remuneration of directors. Remvar: is the variable remuneration. Ceoow: is the percentage of shares held by directors. Logta: is the natural logarithm of total assets.MTOB: Market capitalization / book value of equity. ROI: return on investment. Cashflow: the operating cash flow. Absaccrual: The absolute value of discretionary accruals measured by the modified Jones model (1995) Auditor:. Is a binary variable taking the value 1 if the firm has a Big auditor, 0 otherwise * significant at 10%.** significant at 5% *** significant at 1%.

Absaccrual	Coef.	Z
Constant	-52.35	-1.69 *
Logremvar	-0.38	-0.84
Ceoown	18.93	0.28
Logta	8.46	2.49 ***
Auditor	0.63	0.06
MTOB	2.25	0.97
ROI	-0.56	-1.31
Cashflow	0.01	7.91 ***
R2		0.7005
Wald chi2		156.53 ***
		0,000

6. Conclusion

The objective of this paper is to examine whether leaders benefiting compensation plans have a better quality of their profits, through the study of earning management.

The results of this study show that executive compensation is determined by the requirements of earning management. Specifically, our litters indicate that total compensation is negatively related to the absolute value of accruals.

This result confirms the theoretical hypothesis alignment of interests of executives with those of shareholders. In fact, and according to the agency theory, shareholders are implementing optimal contracts with executives whose remuneration of these in order to ensure the convergence of interests and reduce agency problems. Could pay is higher and the leader will be required to perform the contract in accordance with the expectations of shareholders.

Thus, with a higher pay, the leader would be less opportunistic, reducing its propensity to manage the company's results and to alter the contract that binds with shareholders. This behavior may be motivated by the desire to retain its leadership work and thereby avoid the risk of replacement.

The negative relationship between earnings management and the total executive compensation is in contradiction with the hypothesis of expropriation of private benefits by managers who will look for ways in which opportunistic earnings management to appropriate the maximum private benefits and make contracts that bind with suboptimal shareholders.

This research contributes to the literature on managerial compensation and earnings quality. In fact, executive compensation is usually tied to corporate performance, whether book or market. An extensive literature has focused on the analysis of this relationship, many empirical studies have supported the role of performance pay in aligning the interests of managers and shareholders. However, most of these studies have not considered how to measure this performance.

Thus, our study provides an enrichment in this work by revealing the opportunistic behavior

of managers linked to forms of incentive compensation focusing on discretionary earnings management.

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