

## The impact of monitoring and control bodies on creative accounting

### Practices in Insurance Institutions – Empirical Study -

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#### Abstract:

*This study examines the impact of monitoring and control bodies on the practice of creative accounting within insurance organizations. It seeks to find out the relationship between monitoring and control bodies and creative accounting. The study concluded that insurance institutions cannot operate without monitoring and control bodies given their supervisory and advisory role. It has also been found that there is a strong inverse relationship between the governance and responsibilities of monitoring and control bodies and the practice of creative accounting inside insurance organizations, i.e. whenever monitoring and control bodies conform to their role, creative accounting practices in insurance organizations decline, this is proved by the partial correlation coefficient R, which was found to be -82.8%.*

**Keywords:** Monitoring and control bodies, creative accounting, insurance institutions.

**JEL Classification:** M40, M41, G22.

#### ملخص :

تناولت الدراسة اثر هيئات الإشراف والرقابة على ممارسات المحاسبة الإبداعية في مؤسسات التأمين ، ولقد هدفت الدراسة إلى معرفة علاقة هيئات الإشراف والرقابة بالمحاسبة الإبداعية ، وخلصت الدراسة إلى أنه لا يمكن لمؤسسات التأمين أن تسير دون هيئات الإشراف والرقابة لما لها من دور على مستوى الرقابة، الإشراف والإستشارة ، كما خلصت الدراسة كذلك أن هناك علاقة عكسية قوية بين حوكمة هيئات الإشراف والرقابة والمهام المنوطة بها وممارسة المحاسبة الإبداعية في مؤسسات التأمين أي كلما زاد دور هيئات الإشراف والرقابة أدى ذلك إلى انخفاض ممارسات المحاسبة الإبداعية في مؤسسات التأمين وهذا ما تؤكدته قيمة معاملات الارتباط الجزئية  $R$  الذي -82.8 %.

الكلمات المفتاحية : هيئات الإشراف والرقابة، المحاسبة الإبداعية و مؤسسات التأمين.

تصنيف JEL : M40 ، M41 ، G22.

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## 1. Introduction :

Creative accounting is one of the most recent manipulative accounting practices. It capitalizes on accounting flexibility and the multiple accounting alternatives, methods and policies, which in turn affect the quality of accounting information through misrepresentation and misleading financial statement users, without however breaching accounting rules and standards. This sometimes makes it rather difficult for internal or external auditors or even government and non-governmental regulators to detect the misinformation, especially when accountants are skilled and knowledgeable about every aspect of creative accounting practices.

Like other economic establishments, insurance companies are not immune from such fraudulent practices. In this vein, the Algerian legislation passed Act No. 95-07 of January, 25<sup>th</sup> 1995 and Act No. 06-04 of February 20<sup>th</sup> 2006 on insurance to set forth the methods and objectives of state control and supervisory bodies (administrative and technical control). The most important measures introduced included the enhancement of supervision and control of insurance companies' work through the creation of monitoring and control bodies (the Insurance Directorate, represented by the Minister of Finance, the National Insurance Board, the Supervision Committee and Insurance Inspectors). These bodies are entrusted with a number of tasks, most importantly, granting and withdrawing approvals, ensuring that approved insurers and insurance brokers abide by the legislative and regulatory provisions on insurance and/or reinsurance, oversight of the books, records, contracts, statements and the accounting documents prepared.

**1.1. Research Question:** This leads us to formulate our problem statement as follows:

**To what extent do monitoring and control bodies influence the practice of creative accounting in insurance institutions?**

**1.2. Study Hypotheses:** for the purpose of answering the main question of the study, the hypotheses lurking behind our study are:

**H01:** "The monitoring and control bodies abide by the generally recognized and established governance framework when performing their duties";

**H02:** "The monitoring and control bodies commit to the duties with which they are entrusted in national laws, legislations and regulations";

**H03:** "Management actors exercise creative accounting when preparing and presenting financial statements";

**H04:** "There is a statistically significant relationship between monitoring and control bodies' effective control and creative accounting practices in insurance organizations at a 95% confidence level."

**1.3. Research objectives:** Our research intends to investigate the situation and role of monitoring and control bodies in insurance institutions by gauging the extent to which these bodies adhere to the governance framework and to the national legislations and laws while performing their functions, and the effectiveness of such commitment in curbing creative accounting in insurance institutions.

**1.4. Study methodology:** In order to answer our research question and achieve our intended objectives, a descriptive method was adopted in the theoretical framework whereby the monitoring and control bodies of insurance companies are identified, and the concept of creative accounting is defined. In the empirical section of our paper, a survey was administered to a group of insurance institutions, the data acquired were then processed using SPSS as a tool for compiling and analyzing information, and assessing and testing our models. Also, the deductive method has been used to link the different aspects of the variables of our study and consequently infer the relationship between monitoring and control bodies and creative accounting within insurance organizations.

**1.5 Literature review:** Many previous studies have investigated the role of monitoring and control bodies in insurance institutions, including:

**1.5.1. Yahiaoui, F, (2012):** The Role of the Supervisory Bodies in Insurance Business Control – Algeria as a case study – this study attempted to investigate and evaluate the situation of monitoring and control authorities in Algeria and figure out how to establish effective supervisory entities and define the new role they play nowadays. The study concluded that the Algerian insurance companies do not have their own strategy to address any potential risks. Algerian insurance companies, the researcher continues, believe that the oversight process is sufficient, and that it ensures the smooth functioning of the insurance business as a whole. She also found that there is a constant communication between insurance companies and the National Insurance Board, and that such communication maximizes their contribution towards mapping the trajectory of the insurance process in the country.

**1.5.2. Amine, M, (2014):** The Role of Damage Insurance Companies' technical Activity Control in Enhancing their Financial Solvency - the Algerian Insurance Company (CAAT) as a Case Study. This research work sought to highlight the technical activity and the basic operations that make it up in the context of insurance companies, identify insurance industry control essentials and underscore the role of insurance companies' oversight. The study concluded that state control over the insurance sector and over the companies active in it enables insurance companies to effectively pursue their technical activity in a way that affirms and safeguards the rights of those insured, and ensures that they receive them when the insured risk occurs. Another finding was that the restrictions imposed by the external control body on companies' investments will also ensure that the insured's funds are invested in less risky areas.

## **2. Monitoring and Control Bodies.**

**2.1. Ministry of Finance:** Under the provisions of Law 06/04 on Insurance, the Minister in charge of Finance has the authority to exercise control over insurance institutions; he is the one who grants approvals to insurers to engage in insurance activities, and has the power to establish penalties for insurance and/or reinsurance companies and foreign insurance companies' branches where they act in violation of the legal and regulatory provisions relating to the insurance activity. (Ordonnance n° 95-07 modifiant et complétant par la loi n° 06-04, article 220).

The complete or partial withdrawal of approvals is undertaken by the Minister in charge of Finance after consultation with the National Insurance Board, license revocation lies

within the power of the license granting authority in accordance with the principle of parallelism forms, this implies that the decision to revoke licenses is irrevocable (Ordonnance n° 95-07, article 221).

**2.2. The National Insurance Board:** As per the provisions of Article No 274 of Order No 95-07, dated January 25<sup>th</sup>, 1995, amended and supplemented by Act No 06-04, dated February, 20<sup>th</sup> 2006 on insurance, the National Insurance Board is defined as an advisory body headed by the Minister in charge of Finance. It is consulted in matters involving the situation, regulation and development of the insurance and re-insurance activity. The board, commissioned or initiated by the Minister in charge of finance, may prepare preliminary drafts for legislative or regulatory provisions within its purview. It may also form one or several special internal committees, and is also consulted in connection with granting, amending and withdrawing approvals from insurers and insurance brokers. It is also a center for designing and conducting technical research relating to the insurance industry, including market regulation studies, research and development coordination and compulsory warranty pricing.

**2.3. The Supervisory Commission:** This commission was created pursuant to Act No 06-04, dated February, 20<sup>th</sup> 2006 as an organ directly responsible for supervising the insurance activity in Algeria. State control over insurance activity had been hitherto within the realm of responsibility of the minister in charge of finance. Article No 209 of the above-mentioned Act provides that “a Supervisory Insurance Commission is to be established by the authority responsible for insurances at the Ministry of Finance. The commission shall act as a control administration”.

The commission, as provided for in the aforementioned Article, is made up of five members including the Chairperson of Commission who is appointed under a presidential decree and on the proposal of the Minister of Finance, in addition to two Judges nominated by the Supreme Court and a Representative of the Minister of Finance, the fifth member is an Insurance Expert. The members of the Commission are fully independent given the presidential decree under which they are appointed, and the way the commission is formed, which gives minimal authority to the Ministry of Finance. The budget of the Commission is equally independent as it is charged to the public treasury.

According to Article 210 of the Act No. 06-04 above, the Supervisory Commission’s goal is to:

- Ensure that the approved insurance companies and insurance brokers adhere to the legislative and regulatory provisions on insurance and reinsurance;
- Ensure that these companies fulfill and are still able to fulfill their contractual obligations towards the insurer;
- Verify information about the origin of funds used to generate or increase the insurance and/or reinsurance companies’ capital.

**2.4. Insurance Directorate:** The Insurance Directorate is the body in charge of insurances at the Ministry of Finance. It is one of the departments of the Directorate General of the Treasury. The Insurance Directorate is the implementing structure of the control process managed by the Supervisory Commission. The Insurance Directorate keeps the Ministry of

Finance fully informed of what is going on in the sector, and it consists of (Décret exécutif n° 07/364, p5):

- The Sub-Directorate of Organization;
- The Sub-Directorate of Follow-up and Analysis;
- The Sub-Directorate of Control.

The functions of the Insurance Directorate include:

- Considering and proposing the necessary measures for an appropriate coverage in the area of national ownership insurance, whether economic or social;
- Considering and proposing measures to control and promote insurers and reinsurers' savings;
- Considering and implementing measures that would encourage the development of all types of insurance;
- Managing the bodies under the authority of the Minister of Finance exercising insurance-related activities,
- Making sure that the debts of insurance and reinsurance companies and cooperatives are honored;
- Examining approval application files of insurance, reinsurance and insurance broker companies and cooperatives.

**2.5. Insurance Inspector:** “Commissaire Controleur” or Controlling Commissioner was changed to “Insurance Inspectors”. The body of inspectors include the following ranks: the rank of Inspector, Main inspector, Central inspector, General inspector, and Chief Controlling Commissioner of insurance (Décret exécutif n° 07/364, article 16). The tasks of the inspection body are as follows (Yahiaoui, F, pp. 106-108):

- On-site investigation and/or examination of the documentation of ledger books, records, contracts, statements, accounting documents and the documents of the operations conducted by insurance and/or reinsurance companies;
- Ensuring that the legislative and regulatory provisions applicable to their field of activity are applied and investigating dispute cases;
- Preparing legislative and regulatory texts related to their business;
- Proposing actions that would orient control processes, improve the methods of verification and increase the effectiveness of control operations;
- Follow-up, coordination and supervision of control operations, proposing any measure that would improve the organization and management of interests, visualizing and proposing legislative drafts in connection with insurance and undertaking studies to improve the technical procedures used in financial management.

### 3. Creative Accounting:

**3.1. The concept of creative accounting:** Although the concept of creative accounting has been addressed by a large number of researchers and writers, there is still no firm consensus on its definition. The disparate definitions hitherto offered by researchers are

due to their different perspectives and the existence of many other similar terms, such as earnings management, income smoothing, disclosure management, window dressing....etc. The most important definitions are introduced below:

Professional business journalist Griffiths defines creative accounting in the following terms:

"Every company in the country is fiddling its profits. Every set of published accounts is based on books which have been gently cooked or completely roasted. The figures which are fed twice a year to the investing public have all been changed in order to protect the guilty... In fact this deception is all in perfectly good taste. It is totally legitimate. It is creative accounting" (in Sabrina, R, p. 123).

Nacer and Pendlebury (1992) observe: "Creative accounting is the transformation of financial accounting figures from what they actually are to what preparers desire by taking advantage of the existing rules and/or ignoring some or all of them" (pp. 115)

Others believe that creative accounting is "a process whereby accountants use their knowledge of accounting rules to manipulate the figures reported in the accounts of a business" (Amat & others, 1999, pp.164)

Some argue that creative accounting can be viewed in two different ways. (Tijani, 2012, pp.34)

- **Positively** in that it consists in finding unconventional accounting measures and solutions that enhance decision making. It can also provide useful and important accounting information for those who use it. Furthermore, creative accounting contributes to the innovation and development of accounting procedures and methods.
- **Negatively** in that it is practiced through trickery, distortion and manipulation of numbers to portray a certain image or cover up certain facts to the advantage of some parties.

**3.2. Motives for Indulging in the Creative Accounting Practices:** Creative accounting is practiced for the purposes listed below

- The Creative accounting techniques are sometimes used to improve companies' financial value which reflects their financial performance, when their operating or investment conditions do not otherwise allow such improvement to occur naturally and without interference from their managers. (Fatima Al Zahraa, M et al, 2017, pp. 368).
- Obtaining or maintaining finance: the company seeking financing. Creative accounting techniques are used to improve its value, in order to influence credit decision-making in financial institutions (ibid., P. 369).
- Some financial institutions, through creative accounting techniques, deflate their profits and earnings and inflate their expenditures in order to reduce the tax base based on which the withholding tax is assessed (Al Agha, 2010, pp. 85).
- To obtain an advanced or higher rating than their competitors in the professional classifications conducted by some international and local institutions. This assessment is based on many criteria, including the assessment of the company's financial value and its position in terms of financial power, which. Therefore, many organizations resort to

improving their balance sheets to be accorded a high rating using different creative accounting techniques (Dhouifi, & Mahmoudi, 2018, pp. 376).

- The laws of certain companies sometimes allow their managers and employees to freely trade their company's shares like the rest of shareholders, in which case they would use creative accounting methods to delay the release of the real information to the market, thus strengthening their chances to make use of the enterprise's internal news (Abu Tammam, 2013, pp. 24).
- Use managers for creative accounting to increase profits, especially if their incentives and rewards are associated with those profits (Fatima al-Zahra, et al, pp. 369).
- Avoiding Political Cost represented in the burden that may be borne by large-scale economic units as a result of the laws, regulations and requirements imposed by the state, including those legislations raising tax rates or charging social burdens upon economic
- managers resort in enterprises where the debt-to-equity ratio is high Sometimes, use creative accounting methods and policies for maximize their profits to avoid the so-called "technical default" in debt agreements (Student, 2013, p.26).

**3.3. Forms of Creative accounting:** Being a form of accounting data manipulation, creative accounting may come in many forms as shown below:

- Aggressive Accounting: The deliberate and purposeful selection and application of specific accounting methods and principles to achieve certain desirable objectives, including high profits, regardless of whether or not the accounting practices applied follow the generally accepted accounting principles (Fadawi, 2014, pp. 252).
- Earnings Management: By manipulation of income through overstatement or understatement in order to reach a certain goal set by the management, to meet the expectations of a certain financial analyst. (Hammad, 2011, pp. 46).
- Income Smoothing: A deliberate leveling of the reported income to reach the desired level or trend. It involves moving the income between varying accounting periods; reducing income in high-income years and moving it to low-income years (Abu Hilal, 2010-2011, pp. 15).
- Fraudulent Financial Reporting: by displaying false data, or deleting or hiding certain values in the financial statements in order to mislead financial statement users. This type of manipulation is illegal (al-Ashtar, 2010, pp. 30).
- Big Bath Accounting: .the big bath strategy involves a misrepresentation of the income statement with the purpose of portraying the bad results as worse than they truly are. This creative accounting practice is resorted to in bad times, because by overstating losses, the company can shape next year's earnings. (in Fadawi, pp. 138).

#### **4. Impact of Monitoring and Control Bodies on the Practice of Creative Accounting in Insurance Organizations.**

In this section, we shall attempt to gauge how much monitoring and control bodies adhere to the governance framework, and to national legislations and laws when performing their control functions, and how effective they are in curbing creative accounting in insurance organizations. In order to achieve the objectives of the empirical part of our study, we devised a survey based mainly on the previous studies as well as on the Algerian laws and legislations regulating and defining the responsibilities of those supervisory bodies in the context of their insurance control operations.

**4.1. Study Population and Sample:** Our study population comprises a group of insurance and reinsurance institutions. The target group includes different management actors in addition to insurance brokers. A random representative sample was taken from the original population; 75 copies were administered, 53 of which were recovered.

**4.2. Study Tools:** The survey was designed for the purpose of collecting preliminary data from the survey sample based on previous studies and on the laws and regulations defining the functions of monitoring and control bodies, and then was administered to the survey sample. The survey comprises two parts: the first part looks into the respondents' personal and professional data; whereas the second one investigates the extent to which supervisory and control bodies commit to their responsibilities while performing their control functions, it also looks into creative accounting practices when preparing and presenting financial statements.

**4.3. Presenting and Analyzing the Characteristics of the Survey Sample:** In terms of major and scientific level, 57.2% of the respondents are holders of law, finance, banking and insurance degrees, this is confirmed by the 2.5 arithmetic mean value, 21.4% of the persons in the sample have degrees in business management, while the remaining 21.4% have other degrees. As far as professional experience is concerned, 71.4% of the respondents identified themselves as belonging to category 5 years and more, and 28.6% to the category of less than 5 years of experience. As for professional position, the heads of department and research officers took the lion's share with 57.2%, 14.3% were managers, another 14.3% were insurance brokers while the remaining 14.2% occupied other positions.

**4.4. Survey Reliability Test:** By survey reliability is meant that if the survey is re-administered to the sample more than once under the same conditions and circumstances over a specified time period, the same results would be obtained, i.e. the results are stable to some extent. In order to test the stability of the measurement instrument in this study, the Alpha Cronbach coefficient was employed, the validity coefficient equals the square root of the reliability coefficient. The results can be summarized in the following table:

**Table (1): Distribution of Cronbach's Alpha coefficient per Survey Axis**

Axes	Expression	Cronbach's alpha	Validity coefficient
Governance of Monitoring and control bodies	07	0.786	0.886
Functions of monitoring and control bodies	08	0.712	0.843
Methods of creative accounting	09	0.891	0.943

**Source:** Designed by the Researchers Based on SPSS V22 Output.

As per the table above, we note that all axes' coefficients ranged from 71.20% to 89.10%, which is higher than the statistically acceptable ratio of: 60%. The ratio we have obtained can be considered as very good and statistically acceptable. As to the ratios of the survey statements, they ranged from 88% to 90%. Henceforth, we may view the results of



this survey as reliable, and ascertain that the measurement tool is reliable and effective in achieving our research goals.

All validity coefficients are very high, ranging from 84.30% to 94.30%; therefore, the survey statements enable us to reach the research goal for which the survey was devised.

**4.5. Presenting and Analyzing the Research Variables:** in what follows, we will analyze the current situation of the governance of monitoring and control bodies and their functions, as well as the extent to which creative accounting methods are used in insurance institutions.

**4.5.1. Governance of Monitoring and Control Bodies:** In order to know to what extent monitoring and control bodies adhere to the governance framework when performing their regulatory functions, we shall analyze the survey paragraphs based on SPSS V22 outputs as outlined below:

**Table (2): Results Obtained from the Survey Sample on the Governance of Monitoring and Control Bodies**

<b>Axis 2: Governance of monitoring and control bodies</b>	<b>Mean</b>	<b>Deviation</b>	<b>Result</b>
Monitoring and control bodies operate within a clearly defined legal and institutional framework	5	0.00	Fully agree
Within the context of governance, monitoring and control bodies are empowered to issue and enforce legal rules through administrative means	4.71	0.45	Fully agree
The framework of monitoring and control bodies is clearly defined, so are the internal governance procedures	4.85	0.35	Fully agree
The work of monitoring and control bodies is subject to no political or governmental interference	5	0.00	Fully agree
Monitoring and control bodies draw up a code of conduct applicable to all individuals, and ensure that it is actually put into practice	4.71	0.45	Fully agree
The managers of monitoring and control bodies act impartially and have high levels of experience and skill	4.85	0.35	Fully agree
Monitoring and control bodies commit to confidential information protection measures	4.88	0.32	Fully agree
<b>Results of Axis 2</b>	<b>4.85</b>	<b>0.27</b>	<b>Fully agree</b>

**Source:** Designed by the Researchers Based on SPSS V22 Output.

As outlined in the table, the sample' average implementation of principle two, namely, the governance of monitoring and control bodies ranges between 4.71- 5, which implies that the sample of the study applies the indicators of governance of monitoring and control bodies. We also note that the standard deviation is small; valued at 0 for paragraphs 1 and 4, entailing that the answers gathered from the respondents are homogenous.

It is further noted that the weighted mean of the indicators of the principle, as shown in the table, is 4.85, this entails that the sample of the study believes that monitoring and control bodies adhere to the governance framework when carrying out their control functions.

**4.5.2. Functions of Monitoring and Control Bodies:** In order to determine the extent to which supervisory and control bodies commit to their duties as set out in the national legislations and laws, we shall analyze the survey paragraphs based on SPSS V22 outputs as outlined below:

**Table (3): Results Obtained from the Survey Sample on the Functions of Monitoring and Control Bodies**

<b>Axis Three: Functions of monitoring and control bodies</b>	<b>Mean</b>	<b>Deviation</b>	<b>Result</b>
They consult actuaries on the preparation and pricing of the new insurance policies and the computation of reserves	5	0.00	Fully agree
They oversee new insurance products' marketing policy and ensure that they are admitted	4.71	0.45	Fully agree
They oversee insurance companies to ensure that they commit to their obligations by building up and controlling reserves and technical debts	4.85	0.35	Fully agree
They work on the development of the insurance market to ensure that it is complementary with the social and economic development of the country	5	0.00	Fully agree
They control the bases for calculating premiums and observe policy clauses to ensure that they are not abusive and that the amounts of premiums are not overestimated	4.71	0.45	Fully agree
They review investments to make sure they are carried out legally and at the established ratios	4.85	0.35	Fully agree
They settle the compensation disputes and complaints arising between the insured and insurance companies	4.88	0.32	Fully agree
They review the final statements that are certified by the auditor after examining and reviewing the company's	4.80	0.40	Fully agree

accounts			
<b>Results of the third axis</b>	<b>4.85</b>	<b>0.29</b>	<b>Fully agree</b>

**Source:** Designed by the Researchers based on SPSS V22 Output.

The table above shows that the sample's average application of principle 3, namely, the functions of monitoring and control bodies is between 4.71-5. This suggests that the sample of the study applies the indicators of monitoring and control functions. The paragraph rated the highest in terms of the implementation of the functions contained therein was the first paragraph about consulting actuarial experts on the preparation, pricing and calculation of new insurance policies, while the paragraph rated the lowest compared to the other paragraphs was the second one on monitoring of the marketing policy and ensuring that new insurance products are admitted. We also observe a small standard deviation of 0 for paragraphs 1 and 4, which points to the homogeneity of the responses gathered from the respondents.

Additionally, it is observed that the weighted arithmetic mean of the indicators of the principle shown in the table above is 4.85, which indicates that the survey's sample believes that monitoring and control bodies efficiently take over their tasks as specified in the national legislations and laws.

**4.5.3. Creative Accounting in Insurance institutions:** To determine the extent to which actors within insurance organization management practice creative accounting when preparing and presenting financial statements, the paragraphs of the survey will be analyzed based on the output of SPSS V22 as shown hereunder:

**Table (4): Creative Accounting in Insurance Institutions**

<b>Axis 4 : methods of creative accounting practices</b>	<b>Mean</b>	<b>Deviation</b>	<b>Result</b>
Insurance institutions change and misrepresent their financial situation to mislead audiences, contributors and creditors	1	0	Fully disagree
Insurance institutions transfer their assets and liabilities to their subsidiaries without incorporating them in their financial statements	1.07	0.25	Fully disagree
Insurance institutions manipulate the timing of transactions to set a certain year of profit or loss.	1.15	0.36	Fully disagree
Insurance institutions recognize revenues before they are earned	1	0.00	Fully disagree
Insurance institutions record operational expenditures as funding or investment expenditures	1.07	0.25	Fully disagree
Insurance institutions record long-term lease contracts	1.15	0.36	Fully

as operating leases in the company's books.			disagree
Insurance institutions use practices that deviate from the conventional or standard accounting practices by manipulating the value of expenses and revenues	1	0.00	Fully disagree
Insurance institutions intentionally select and apply specific accounting methods to achieve desired administrative objectives.	1.07	0.25	Fully disagree
Insurance institutions do not provide sufficient information on their financial situation to the clients	1.15	0.36	Fully disagree
<b>Results of the fourth axis</b>	<b>1.07</b>	<b>0.20</b>	<b>Fully disagree</b>

**Source:** Designed by the Researchers Based on SPSS V22 Output.

The table illustrates that the sample's average application of principle 4, namely, creative accounting practices in insurance organizations, ranges between 1 and 1.15 as most of the responses gathered from the survey sample were: fully disagree. This suggests that the survey sample does not practice or use creative accounting in insurance institutions, which is a clear indication of the effective role played by monitoring and control bodies in curbing creative accounting. We also note a small standard deviation for all the paragraphs of the axis, which implies that the answers collected from the respondents regarding the implementation of the axis (creative accounting practices), is homogeneous.

Additionally, as one can see in the table, the weighted arithmetic mean of the indicators of the this principle is 1.07, which suggests that the survey's sample believes that actors within their insurance institutions do not undertake creative accounting when preparing and presenting their financial statements.

**4.6. Hypotheses Testing Results:** To describe the extent to which monitoring and control bodies adhere to the governance framework and to their mandated tasks as set forth in legislations and laws, we shall test our hypotheses by computing the mean and the standard deviation of the study axes, and carry out a T-test as outlined below:

**Table (5): Hypotheses Testing Results**

<b>Axes</b>	<b>Mean</b>	<b>S deviation</b>	<b>T-test</b>	<b>Sig</b>	<b>Results</b>
Governance of monitoring and control bodies	4.86	0.26	185.83	0.00	True
Tasks of monitoring and control bodies	4.85	0.023	207	0.00	True
Methods of accounting practices	1.50	0.06	24.92	0.00	Not true

**Source:** devised by the researchers based on SPSS V22 output.

As per the table above, the arithmetic mean for the second and third axis is 4.86 and 4.85 respectively, this goes to prove that the governance of monitoring and control bodies is there and is largely enforced, and that these bodies do perform their functions in accordance with the national legislations and laws when exercising control over insurance institutions. Therefore, the first two hypotheses (H01) and (H02) on the compliance of monitoring and control bodies to the framework of governance and their adherence to national laws and legislation when completing their tasks are validated. The fourth axis's arithmetic mean is 1.50, which points to the absence of creative accounting practices. Accordingly, the third hypothesis (H03) is refuted. The table also shows that all t-test values are statistically significant at a ( $p \leq 0.05$ ) significance level against a standard value of 3.

#### 4.7. Monitoring and Control Bodies - Creative Accounting Relationship Model:

**4.7.1 Normality Test:** In order to estimate the model and analyze the data, the latter must follow the normal distribution; this can be illustrated in the following table:

**Table (6): Normality test**

The variables	Kolmogorov-smirnov			Shapiro-wilk		
	statistic	df	sig	statistic	df	sig
Governance of monitoring and control bodies	0.41	25	0.12	0.28	4	0.08
Tasks of monitoring and control bodies	0.62	30	0.21	0.33	6	0.10
creative accounting Methods	0.72	33	0.08	0.55	5	0.09

**Source:** Designed by the Researchers Based on SPSS V22 Output.

The previous table demonstrates that all significant values sig are greater than 0.05. Therefore, all data are normally distributed.

**4.7.2 Modeling the relationship: Monitoring and Control Bodies - Creative Accounting :** In order to model the relationship between monitoring and control bodies and creative accounting in Insurance institutions, the researchers have entered the data into SPSS V22, and the information shown in the following table were obtained

**Table (7): Estimation and Testing of the Model**

Parameter	Parameter value	T- Sig (T-test)	R	R <sup>2</sup>
A	10.39	0.00	- 0.828	0.685
$\alpha_1$	-1.85	0.00		

**Source:** Designed by the Researchers Based on SPSS V22 Output.

The data in the table above can be interpreted as follows:

- The correlation coefficient R is -0.828, this means that there is a negative correlation at -82.8% between the governance and functions of monitoring and control bodies and creative accounting practices. In economic terms, this can be explained by the fact that governance system actually maximizes internal accounting and control systems, particularly when it comes to internal checks. It also achieves the highest possible level of transparency and disclosure in financial reporting; such factors contribute to reducing creative accounting practices.
- The coefficient of determination (correlation coefficient squared R<sup>2</sup>) is 0.685, which means that 68.5% of the changes occurring to the dependent variable are due to the independent variable, while the remainder 31.5% are due to other random factors;

Based on SPSS V22 output, the relationship model between the effective oversight of monitoring and control bodies and creative accounting practices can be estimated as follows:

$$Y = 10.39 - 1.85 G_i + \epsilon$$

The initial value of creative accounting (a) is statistically significant, which implies that in the absence of a real exercise of the functions of monitoring and control bodies in insurance institutions, it equals 10.39 points out of a total of 45 points;

$\alpha_1 = -1.85$ , the marginal propensity of the governance and functions of monitoring and control bodies, is statistically significant. This signifies that whenever this indicator is present as required by the governance framework and functions of monitoring and control bodies, including consulting actuaries regarding the preparation and pricing of new insurance policies and the computation of reserves, with the other variables assumed constant, creative accounting practices decline by 1.36 points;

**4.7.3. Testing the Model:** To test the relationship model: monitoring and control bodies - creative accounting, an analysis of variance (ANOVA) is carried out below.

**Table (8): Test Anova Monitoring and Control Bodies - Creative Accounting in Insurance Institutions**

Model	Sum of squares	df	Mean squared	F	F-sig (F-test)
Regression	1.041	1	1.041	37.43	0.000
Residual	1.93	68	0.0285		
Total	2.971	69	1.0695		

**Source:** Designed by the Researchers Based on SPSS V22 Output.

From the table used to examine the statistical validity of the regression model, we note that the significance level of the error of (f-test) is  $P=00.00$ , less than  $\alpha=0.05$  statistical level. In statistical terms, this goes to prove the validity and the high explanatory power of

the simple linear regression model, which consequently proves the validity of hypothesis H04: "There is a statistically significant relationship between the effective oversight exercised by monitoring and control bodies and creative accounting practices in insurance organizations" at a 95% confidence level, which can be represented in the form of a simple regression equation.

## 5. Conclusion

Monitoring and control bodies play a crucial role in insurance institutions. They maintain the good functioning of insurance institutions and guarantee the insurance rights of those insured by monitoring insurance institutions' financial solvency and addressing the financial issues and risks they face.

**Results:** The major findings of our research can be listed below:

- Insurance companies are among the institutions that highly depend on monitoring and control bodies in their activities, including the examination of approval applications, supervision, control, counsel and new product pricing... etc;
- Monitoring and control bodies adopt simple traditional control methods; they don't employ modern risk-based methods such as early warning and internal models;
- The greater the independence of monitoring and control bodies, the greater the need for an adequate control on insurance institutions so that monitoring and control systems can curb creative accounting practices;
- Monitoring and control of insurance companies is not only about respecting a set of rules and laws; it is a culture and a way of regulating relationships with insurance customers within a clear transparent framework and in accordance with the principles and mechanisms of governance.
- The assessment and testing of the relationship between monitoring and control bodies and creative accounting in insurance institutions revealed the impact of monitoring and control bodies on creative accounting, which is manifested in a strong adverse relationship (negatively sloped) of -82.8%;

**Recommendations:** In light of our findings, a number of recommendations are proposed hereunder:

- Our perception of control should go beyond the bounds of machinery and mechanisms, it should rather be understood as the effective control that seeks solutions to the difficulties and constraints faced by the insurance activity, and the prevention and hedging against the risks that threaten its stability and development ;
- The role of oversight and control bodies should be strengthened by setting regulatory rules entrenching a culture of governance, the latter ought to be incorporated into the core components of the insurance culture of officials and managers for the purpose of improving performance;

- A culture of governance should be promoted amongst all parties in order to oblige all actors in insurance institutions to honor their responsibilities and commitments, thereby enhancing performance and competitiveness;
- Building a robust legal and regulatory framework and enforcing the laws and legislations relating to the responsibilities of oversight and control bodies. This would ensure the quality and implementation of legislations and enhance the efficiency and effectiveness of control bodies' performance;
- Increasing the rate of disclosure and transparency of the information contained in the accounting and financial reports of insurance institutions by providing a more binding legal framework that is suitable for all parties, such a step would create a competitive working environment and trigger progress and innovation inside insurance institutions.

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