# Explanatory Factors for the Manipulation of Accounting Records in Cameroon: The Role of the Financial Situation and the Characteristics of the Enterprise

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*Abstract*

*The objective of this paper is to study the impact of the financial situation and characteristics of the company on the manipulation of accounting records. A logistic regression was performed out on data collected from 90 preparers of financial records. The results show that accounting manipulation is positively correlated with net income when it increases, with the firm's level of liquidity when it decreases, and with the firm's size and sector of activity. However, accounting manipulation is negatively correlated with the firm's volume of debt. This could be explained by the phenomenon of the "centralization of risk" set up by commercial banks and the central bank in order to circumvent account manipulation by managers. In such a context, the manipulation of accounts is of no use to the manager vis-à-vis the financial institutions.*

**Keywords:** Manipulation of Accounting Records, Financial Situation, Characteristics of the Company

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## 1. Introduction

Financial information based on accounting principles is supposed to give a true picture of the reality of companies (Vionea and Dimitriu, 2014). Although accounting and financial information is regulated or supervised in several economies, managers still have leeway, commonly referred to as "results management", in terms of accounting and valuation options (Mard and Marsat, 2012). For a long time, results management was considered as a deterioration of accounting documents with the aim of misleading the various stakeholders in their judgements of the economic performance of the company (Healy and Wahlen, 1999). It refers to the various accounting practices that are carried out in compliance with accounting standards (Bruns and Merchant, 1990; Baghar, 2018), as opposed to the manipulation of accounts, which is often associated with fraud (AICPA[1], 2002; Trussel, 2003; Baghar, 2018).

Accounting manipulation refers to the intentional misrepresentation of an organization's financial information by management in order to favourably represent the financial performance of the entity (Trussel, 2003). Its purpose is to create a situation of information asymmetry between the entity's management and other users of financial statements, such as creditors, suppliers and investors, in order to influence their decisions (Mamo and Aliaj, 2014; Khuong et al., 2020). According to the AICPA, accounting manipulation may involve acts such as the restatement, falsification or alteration of accounting records or the supporting documents from which financial statements are prepared; intentional misrepresentation or omission in the financial statements of events, transactions or other material information; intentional misapplication of accounting principles relating to the amounts, classification, presentation or disclosures of accounting information (AICPA, 2002).

The question of the reliability of the financial statements produced by the preparers of the accounts is at the heart of many debates for both scholars and professionals of accounting. Indeed, several scandals due to the manipulation of accounting information have been observed around the world, such as the cases of companies like Tyco and Enron in the USA; Alcatel, Alsthom, Ahold, Elf and the Suez Insurance Company in Europe; BICEC, SONARA, and CBC in Cameroon. In addition, numerous studies (Ndjanyou, 2001; Ngantchou, 2008; Foka et al., 2018) have mentioned the unreliability of accounting outputs in Cameroonian companies. In this regard, Niskanen and Keloharju (2000) assert that tax evasion is the main motivating factor for account manipulators. Indeed, the amount of tax to be paid depends on the size of the declared income, and the tendency of managers is to tax evasion. In this regard, according to Ngantchou (2008), the manipulation of accounting data can be seen as a strategic option aimed not only at circumventing the payment of taxes, but also at obtaining bank loans. Breton and Schatt (2003) argue that disclosing a financial position that is different from a true and fair view allows managers to optimize future profits by reducing tax, social, and financial costs and maximizing future revenues. According to these authors, executives manipulate accounting information in order to transfer wealth from certain stakeholders to shareholders. Thus, the lower cost of debt financing and a higher debt capacity make it possible to retain the profits generated by the firm in the event of bank debt financing, which should benefit shareholders (Ndjetcheu, 2010). Thus, tax evasions, reduction of bank costs, access to additional bank financing and maximising shareholders' financial profitability are motives for manipulating accounts.

Most of the literature on the determinants of accounting data manipulation is[2] limited to variables such as regulation (accounting rules used), pressure from shareholders and creditors, internal (characteristics of the board of directors, ownership structure, audit committee) and external (audit quality)

governance mechanisms, change in management, firm characteristics such as the size of the firm and its sector of activity, incentive compensation, the ethical profile of the preparers of financial records, indebtedness and the firm's performance. Beyond these classic variables, the effects of the firm's financial situation were not significantly taken into account. Moreover, authors such as DeAngelo et al. (1994) have rejected the hypothesis that firms' accounting choices reflect their difficult financial situations. The only works identified are those by Beneish (1997) and Dechow et al. (1995), which confine themselves to showing that the manipulation of accounting data is correlated with the firm's financial situation, without, however, carrying out any explanatory analysis, even though it is a crucial variable for firms in the decision-making process.

Indeed, if the volume of tax to be paid to the tax authorities and the financial profitability depend on the company's results, the cost and volume of debt depend on the perception of the company's financial situation by the lenders. Thus, for managers, the tendency to manipulate the accounts also finds an explanation in the financial situation of the company. In other words, managers of firms with a relatively poor financial position are more likely to manipulate their accounting records. In addition to the firm's financial situation, firm characteristics such as size and sector of activity can be seen as major factors contributing to the distortion of accounting information in developing countries dominated by small and medium-sized enterprises (SMEs).

This study, therefore, proposes to provide some empirical explanations for the link between financial situation, firm characteristics, and the manipulation of accounting data in the specific context of Cameroon, where the business climate is struggling to be favourable to the development of the private sector. Indeed, firms in Cameroon operate in a repressive fiscal environment,

characterized by difficulties of liquidity and access to bank financing (Essomba, 2004). Ngantchou (2008) states in this regard that 53% of companies in Cameroon manipulate their accounting data. The specificity of this study is that it can be considered representative of the basis for producing accounting records throughout Africa, where the accounting culture is continental in inspiration (Ngantchou and Elle, 2018).

This article is of threefold interest. First, it provides guidance to investors or banks on the factors used by managers to mislead them when communicating financial statements. Indeed, the release of funds by financial institutions or lenders is conditioned, among other things, by reliable and credible financial information on the company's financial situation and performance. Secondly, the tax authorities could identify the strategies used by companies to manage their results downwards in order to pay less tax. Finally, regulators could find in this paper a reliable benchmark for producing less flexible accounting laws to reduce management discretion and ensure relevant information content for the financial statements produced.

The rest of this article is organised in three sections. The first presents the theoretical framework of the study and the inference of hypotheses. The second presents the methodological details. The third section presents the main results of the study. We will conclude with a conclusion.

## 2. Theoretical framework and inference of research hypotheses

This part is intended to continue the work on positive accounting theory and to identify the characteristics of the firm behind the manipulation of accounting data.

## *2.1    The management of accounting figures from the perspective of positive accounting theory*

The study of the factors explaining the decision to manipulate accounting figures is part of research in positive accounting theory. According to Cormier (2002), the research initiated around this theory is mainly based on the work of Watt and Zimmerman (1978). According to the latter, accounting data, far from reflecting transparency, may instead reflect the result of manipulation by managers. These manipulations can thus misdirect users of information in their decision-making. This theory is based on the idea that politicians, shareholders, managers and regulators are rational, each striving to maximise their personal interests. These interests are directly related to their remuneration, and therefore to their wealth (Riahi- Belkaoui, 1992). On the basis of agency problems and political costs, this theory tries to predict and explain accounting choices (Dupuy et al., 2000). It derives its models from agency theory and the economic theory of regulation.

Most of the work done in positive accounting theory has retained the financial market as the main user of accounting and financial information (Colasse, 2009; Casta, 2000; Mard, 2004; Mard and Marsat, 2012). This approach is not considered in the same way in all countries, especially in emerging countries, hence the questioning by some authors such as Raffournier (1990) about the universality of the positive accounting theory. Indeed, Ngantchou (2008), in the context of Sub-Saharan Africa where stock markets are still in the gestation phase and where the banking system is quite severe with small firms (Hernandez, 1997; Essomba, 2004), the hypothesis of accounting data manipulation as envisaged by Watts and Zimmerman (1978), is only realistic from the point of view of tax accounting in the sense of Collette et al. (2002). Moreover, Watts and Zimmerman (1990) consider firm size as an incentive factor for managing accounting data, because it can be

seen as a tool in the hands of the manager-owner of the small and medium-sized enterprise (SME) to reduce the risk of transferring the firm's fortune to the state (Ngantchou, 2008). Chotin (1994) already noted in his study that taxes are considered much more as a levy than as a contribution and therefore increase the propensity of the SME owner-manager to defraud. The study of the management of accounting records in an SME context is, therefore, part of the research stream in positive accounting theory and appears to be a more interesting research topic than in a managerial context. Indeed, the methods of accounting data management vary greatly depending on the cultural context and the economic-financial environment in which the company operates (Ndjetcheu, 2010).

## 2.2 *The financial situation and the characteristics of the firm as determinants of the manipulation of accounting records*

As mentioned earlier, incentives for companies to manage accounting data are abundant. These incentives include internal and external governance mechanisms, pressure from the financial market, regulation, the financial situation of the firm and its characteristics. But in this study, we will focus on the financial situation and characteristics of the firm, which are not considered in many studies.

### 2.2.1 *The firm's financial situation as an explanatory factor of the manipulation of accounting data*

In this study, the firm's financial situation is measured through the level of indebtedness, the financial profitability and the level of liquidity.

(1) Firm's level of indebtedness and management of accounting figures

A firm's investments are generally made after an analysis of its accounting data and its environment (Charreaux, 2000). As a result, managers may arrange to present the risk of default of the firm to investors as low as possible. These manipulations are aimed at providing low-cost financing and avoiding credit rationing. Indeed, the purpose of these actions is to protect and benefit shareholders in a situation of corporate indebtedness. The primary reason being that in the case of debt financing, the shareholding structure remains unchanged, unlike financing by capital increase, which changes the control of the company. In the literature, very little work has been done on the relationship between indebtedness and the manipulation of accounting data. Mard (2004) shows that a heavily indebted firm may be encouraged to manipulate its earnings by managing it upwards in order to present potential investors with a good financial position. Watts and Zimmerman (1986) have also shown that firms that most often seek to inflate their earnings through accounting manipulation are the ones with the highest debt levels. Other studies have looked at the nature of financing and found that firms using bonds manipulate accounting data in order to comply with contractual clauses (Labelle, 1990). The peculiarity of this variable in the context of emerging countries such as Cameroon, unlike developed countries, is that the vast majority of firms are SMEs and are mostly unable to issue bonds because they are reserved for very large firms. Consequently, they use loans from financial institutions (conventional banks, microfinance institutions). According to Charreaux (2000), decisions to grant bank loans to finance the operating or investment cycle of enterprises are generally taken after analysis of the financial statements. Unfortunately, these financial institutions find it difficult to finance their businesses because of the publication of incorrect financial statements (Wamba and Tchamenbé, 2002). Indeed, firms with high debt levels may be tempted to manipulate their financial statements in order to access financing at a lower cost or for fear of losing control of their business. On the basis of this observation, we can deduce the following hypothesis:

**Hypothesis 1:** Managers of highly indebted companies tend to alter their financial statements.

(2) Financial profitability of the company and manipulation of accounting figures

Financial profitability is a key indicator for assessing the company's performance. The company becomes attractive to investors when its financial profitability is high. In the context of the financial market, the calculation of this profitability is essentially carried out with a view to being presented to investors, since it includes all of the company's financial debt. This may lead company managers to manipulate accounting data in order to present potential investors with attractive information that would lead them to decide in favour of the company in the event of an investment request. Indeed, Feudjo and Tchankam (2012) find that a high rate of return reflects a sufficient amount of accumulated resources for self-financing. Nevertheless, several studies note that in a context of poor performance, the preparers of accounts may choose, depending on the case, to record a maximum of losses, or on the contrary, to manage the accounting results upwards in order to disguise the financial difficulties of the enterprise (Balsam, 1998; Pfeiffer Jr, 1998).

Similarly, the works of Truman (1990) and Mard (2004) showed that the manipulation of accounting data is one way of reducing the visibility of differences in performance within firms. In contrast, in developing economies characterized by embryonic financial markets and dominated by SMEs where shareholding is concentrated, the nature of the motivations and objectives of accounting data manipulation necessarily differ from those of countries with an active financial market. Indeed, in these types of countries dominated by family-owned SMEs, the preferred strategy is tax optimisation (Ndjetcheu, 2010). According to Ndjetcheu, this tax strategy aims to reduce the accounting

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result that serves as a basis for sharing between the company and the State. It is in this logic that authors such as Morse and Richardson (1983) were among the first to consider taxation as an explanatory element for the manipulation of accounting records. Since then, numerous studies have focused on the importance of the tax environment in the production of accounting data (Scholes et al., 1992; Maydew, 1997; Ngantchou, 2008; Ndjetcheu, 2010). In line with these authors, we formulate the following hypothesis:

**Hypothesis 2:** Companies whose objective is to pay less tax tend to alter their financial statements when their net income is positive.

(3) Level of liquidity of the company and manipulation of accounting data

From the perspective of financial analysis, a company's liquidity expresses its ability to honour its short-term commitments. This notion of liquidity is one of the determining variables that lenders use to assess the firm's ability to meet its short-term maturities. Aware that financial information is an important tool for financial institutions in assessing borrower risk and repayment capacity (Wamba and Tchamanbé, 2002), managers of enterprises with a low level of liquidity may be tempted to manipulate accounting records in order to present a better image to the financial institutions. Indeed, a low level of liquidity would reflect the risk that the firm may at some point be unable to meet its short-term maturities. Chang et al. (2018) have highlighted the fact that the positive association between real profit management and liquidity is stronger for firms with more financial constraints. Given that the borrower's repayment capacity and financial risk represent one of the two key criteria that can influence the decision to grant bank credit, we can formulate the following hypothesis:

**Hypothesis 3:** The likelihood of companies to alter their financial statements is high when their level of liquidity is low.

### 2.2.2 *The characteristics of the enterprise as a source of manipulation of accounting records*

In this study, the size and sector of activity represent the characteristics of the company.

(4) Company size and the manipulation of accounting information

Casta (1997) points out that the motivations and objectives of accounting policy differ according to the size of the company. In this regard, Dumontier and Raffournier (1999) and Jeanjean (2001) argue that large firms always tend to manipulate their accounting data with the aim of reducing their earnings. According to Chotin (1994), small firms face a lack of strategy and find themselves in the process of favouring the low-tax path. Rossignol (2002) believes that taxation is an integral part of corporate strategy and that, regardless of their size, companies must reflect on the tax impact of their management decisions recorded in their individual accounts. Indeed, Ramadan (2013) showed that an increase in the size of the firm increases the probability of practicing earnings management by 99.92% for the Jordanian industrial companies. His study has also concluded that large firms involve in earnings management more than small firms, as the percentage probability of practicing earnings management in the large firms is 84.52%. These findings are confirmed by the work of Ali et al. (2015), who conducted a study in the textile sector in Pakistan and concluded that firm size has a positive and significant impact on earnings management.

In the context of Cameroon, Ngantchou (2008) suggests that SMEs that are subject to more restrictive accounting arrangements have a greater propensity to manipulate accounting data. The author explains this by the fact that very small firms are fiscally honest in the sense that the data they report do not differ significantly from their reality. However, as the size of the firm increases, the desire to limit wealth transfers, coupled with the greater demands of producing financial statements, forces managers to adopt optimising behaviours. On the other hand, studies conducted by Djoumessi and Souleymanou (2019) among 80 Cameroonian firms reveal that firm size does not influence the distortion of accounting information. This conclusion of the authors is supported by Rusdiyanto and Narsa (2020) who also found that company size does not have a significant influence on the management of accounting results in listed companies in Indonesia. Within the framework of this study, we anticipate that the company size and the manipulation of accounting figures will be positively correlated. This implies that the larger the size of the company, the more it manipulates the financial statements. Hence the following hypothesis:

**Hypothesis 4:** The larger the size of the company, the more the company manipulates the financial statements.

(5) Business segment and manipulation of accounting figures

The fact that a firm belongs to one sector, compared to another, may encourage its managers to manage accounting records (Othman and Zéghal, 2006; Djoumessi and Souleymanou, 2019). To this end, Ngantchou (2008) finds among SMEs in Cameroon that firms operating in the trading sector have a stronger propensity to manipulate data. Holmes and Nicholls (1988) find that in the SME context in Australia, industry influences the quality of non-mandatory accounting data. They suggest that some sectors are likely to

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represent a higher risk of political costs than others, and there are a number of reasons for this. For example, differences in tax treatment across industries may create an impression of inequality or unfairness in the system, which could increase the marginal utility associated with non-compliance of financial statements (Spicer and Lundstedt, 1976). Referring to Ngantchou's (2008) studies, we can infer the following hypothesis:

**Hypothesis 5:** Firms in the service sector also manage accounting documents in the same way as firms in the trade sector.

## 3    Methodological approach

This section is divided into three major points. Firstly, the procedure for setting up the sample and collecting data, secondly, the construction of the theoretical model of the study and the operationalization of the variables, and thirdly, the presentation of the methods for processing and analysing the data.

### 3.1 Source of data

Data used are from Centre for Study and Research in Management and Economics and is a survey carried out on the on the quality of financial reports produced by companies in Cameroon. The study covers all public limited companies (PLCs) in Cameroon operating in three sectors of activity (Commerce, Industry, and Services). They are located in the city of Douala for most of the companies in the country are concentrated there. The sampling method is the non-probability method, since this is the one generally used for studies in third world countries (Evina, 2010), where databases are unavailable or non-existent. For data collection, a questionnaire was designed and administered to 97 account preparers between March and July 2018, for a total of 90 usable responses (a response rate of 93%).

### *3.2 Theoretical model and operationalization of variables*

   The objective of this work is to determine whether the financial situation and characteristics of the company explain the manipulation of accounting figures in Cameroon. To model this relationship, a deductive approach was used and the epistemological positioning is the positivism. Based on the literature, we selected three variables to characterize the firm's financial situation (the level of indebtedness, the firm's profitability and the level of liquidity) and two to assess the characteristics of the firm (the size of the firm and the sector of activity). For this purpose, we present a model that establishes the relationship between the variables of the financial situation, the characteristics of the firm and the manipulation of the accounting figures. Thus, for the purposes of this study, the econometric model we propose to highlight this link is as follows:

$$MANIP\_ACCO = \beta_0 + \sum_{i=1}^{n} \beta_i X_i + u \tag{1}$$

Where: $MANIP\_ACCO$ refers to the manipulation of accounting figures. It is the variable to be explained; $X_i$, the explanatory variables; $\beta_0$, the constant term; $\beta_i$, the regression coefficients and $u$, the error term. The complete empirical form of the model is:

$$MANIP\_ACCO = \beta_0 + \beta_1 DEBT\_LEV + \beta_2 PROFIT + \beta_3 LIQUID\_LEV + \beta_4 SIZE + \beta_5 SEC\_ACT + u \tag{2}$$

Table 1 defines and summarises the operationalisation of the variables in the model (2).

Table 1. Definitions and measures of model variables.

| Variables | Measures selected by reference to previous work | Authors |
|---|---|---|
| **Variables related to the company's financial situation** | | |
| *DEBT_LEV* | Debt level: nominal variable taking the value of 1 if the total debt level has remained stable over the last two financial years, 2 if it has fluctuated upwards and 3 if it has fluctuated downwards. | Mard (2004); Watts and Zimmerman (1986) |
| *PROFIT* | Profitability of the company measured in this study by the change in earnings: nominal variable taking the value of 1 if the company declares that its net earnings have risen compared with those of the last two financial years, 2 if they have remained stable and 3 if they have fallen. | Truman (1990); Mard (2004): Balsam (1998) |
| *LIQUID_LEV* | Level of liquidity. This is a dummy variable that takes the value of 1 if the firm's liquidity level has risen over the last two financial years, 2 if it has fallen and 3 if it has remained stable. | Wamba and Tchamanbé (2002); Essomba (2004) |
| **Variables related to firm characteristics** | | |
| *SIZE* | The size of the company is measured in this study through turnover. It is a nominal variable taking the value 1 if the firm's turnover is less than 500 million FCFA, 2 if it is between 500 million and 1 billion FCFA, 3 if it is between 1 billion and 1.5 billion FCFA, 4 if it is between 1.5 billion and 2 billion FCFA and 5 if it is more than 2 billion FCFA. | Djoumessi and Souleymanou (2019); Ngantchou (2008); Othman and Zéghal (2006) |
| *SEC_ACT* | The business sector. This is a dummy variable that takes the value of 1 if the company's sector of activity is trade, 2 if it is industry and 3 if it is service. | Spicer and Lundstedt (1976); and so on. |
| **Variable to be explained: manipulation of accounting figures** | | |
| *MANIP_ACCO* | The manipulation of accounting figures is measured in this study through the restatement of financial statements. It takes the value 1 if, at the request of an auditor, the company has had to make restatements to the financial statements during the past year and 0 otherwise. | Richardson et al, (2002); Agrawal and Chadha (2005); Tillman (2009) |

## *3.3 Data processing and analysis method*

The descriptive analysis technique used is flat sorting and cross-tabulation. For the explanatory analyses Chi-square independence tests and logistic regression were used because the dependent variable *( MANIP_ACCO)* is binary. The advantage of this analysis is that it takes into account the interrelationships that might exist between all the explanatory variables.

## **4   Results and discussions**

In this section, the results of the descriptive and explanatory analyses are presented.

## *4.1 Descriptive statistics*

(1) Characteristics of the sample

As regards the profile of the respondent, we note that out of the 90 account preparers interviewed, only 5.6% hold the position of General Director, 10% of Deputy General Director and 84.4% of Accounting and Finance Director. 23.3% of these managers have less than 2 years in the position, 37.8% between 2 and 5 years, 17.8% between 5 and 8 years and 21.1% more than 10 years of experience in the position. Of the account preparers surveyed, 74.4% are men. As for their ages, 30% are under 30 years old, 7.8% between 30 and 35 years old, 33.3% between 35 and 40 years old, 3.3% between 40 and 45 years old and 25.6% are over 45 years old. Only 6.7% of these leaders have secondary education, while 40% have completed the [first] cycle of higher education and 53.3% the second cycle of higher education.

With regard to company characteristics, the descriptive statistics show that all the companies in the sample have the legal form of a public limited company with a board of directors, unlike public limited companies with a general assembly. 48.9% of these companies are in the service sector, 37.8% are in trade and 13.3% are in industry. With regard to company turnover, 25.6% have less than 500 million CFA francs, 11.1% between 500 million and 1 billion CFA francs, 15.6% between 1 billion and 1.5 billion CFA francs, 10% between 1.5 billion and 2 billion CFA francs, and 37.8% have more than 2 billion CFA francs. It can be seen from these figures that the sample is generally made up of medium and large enterprises. As regards the number of employees, 20% of the enterprises surveyed have less than 50 employees, 41.1% between 50 and 100 employees, 7.8% between 100 and 150 employees, 3.3% between 150 and 200 employees and 27.8% more than 200 employees.

(2) Description of the financial situation of the companies

The financial situation of the company is measured in this study via the company's level of indebtedness, profitability and liquidity. The statistics reveal that 25.6%, 30% and 56.7% of the companies surveyed saw an increase in the volume of their debt, their net income and their level of liquidity compared with the last two financial years. On the other hand, 33.3%, 16.7% and 30% of the companies surveyed believe that the volume of their debt, their net income and their level of liquidity have declined over the same periods respectively.

(3) Appreciation of the manipulation of accounting figures in the financial statements

Agrawal and Chadha (2005) and Tillman (2009) use financial statement restatement as a proxy for accounting manipulation. The figure below reveals

that the financial statements published by the sample preparers do not reflect reality. Indeed, 60% of these preparers manipulate their financial statements. This result is similar to that of Djoumessi and Souleymanou (2019) who concluded that 59.01% of the accounting reality is distorted in the financial statements for several reasons.



Figure 1. Manipulation of accounting records.

*4.2 Result of the explanatory analyses*

The purpose here is to present the results of the cross-tabulation and chi-square independence test on the one hand, and the results of the logistic regression on the other hand.

*4.2.1 Analysis of factors explaining the manipulation of accounting figures: Cross tabulation and chi-square test*

(4) Influence of the level of indebtedness on the manipulation of accounting figures

Table 2 highlights the relationship between the level of indebtedness and the manipulation of accounting data.

Table 2. Level of indebtedness and manipulation of accounting records.

| Debt level | | Manipulation of accounting records | | Total |
|---|---|---|---|---|
| | | No | Yes | |
| Stable | Staff | 8 | 29 | 37 |
| | % Line | 21,6% | 78,4% | 100,0% |
| | % column | 22,2% | 53,7% | 41,1% |
| On the rise | Staff | 16 | 7 | 23 |
| | % Line | 69,6% | 30,4% | 100,0% |
| | % Column | 44,4% | 13,0% | 25,6% |
| Downward | Staff | 12 | 18 | 30 |
| | % Line | 40,0% | 60,0% | 100,0% |
| | % Column | 33,3% | 33,3% | 33,3% |
| Total | Staff | 36 | 54 | 90 |
| | % Line | 40,0% | 60,0% | 100,0% |
| | % Column | 100,0% | 100,0% | 100,0% |

From Table 2, we can see that among the 37 companies with a stable debt level, 78.4% manipulate the records. Of the 23 companies that have seen their debt level rise, only 30.4% are distorting the accounting records, while among the companies that have seen their debt level fall, 60% are manipulating the accounting records. A comparative analysis shows that the majority of firms whose debt level has remained stable (53.7%) manipulate the accounting records, while the majority of firms whose debt level has risen (44.4%) do not restate their financial statements. Table 3 shows that there is a significant relationship at the 1% level between the level of indebtedness and the manipulation of accounting records.

Table 3. Influence of debt level on the manipulation of the records.

|  | Value | ddl | Asymptotic significance (bilateral) |
|---|---|---|---|
| Pearson Chi-2 | 13,584*** | 2 | 0,001 |
| Likelihood ratio | 13,861 | 2 | 0,001 |
| Linear association by linear | 2,867 | 1 | 0,090 |
| Number of valid observations | 90 | | |

*** : Significant at the 1% level

(5) nfluence of company profitability on financial statement restatements

Table 4 below highlights the link between company profitability and manipulation of records.

Table 4. Profitability of the company and manipulation of accounting records.

| Net income | | Manipulation of accounting records | | Total |
|---|---|---|---|---|
| | | *No* | *Yes* | |
| On the rise | Staff | 3 | 24 | 27 |
| | % Line | 11,1% | 88,9% | 100,0% |
| | % column | 8,3% | 44,4% | 30,0% |
| Stable | Staff | 25 | 23 | 48 |
| | % Line | 52,1% | 47,9% | 100,0% |
| | % Column | 69,4% | 42,6% | 53,3% |
| Downward | Staff | 8 | 7 | 15 |
| | % line | 53,3% | 46,7% | 100,0% |
| | % Column | 22,2% | 13,0% | 16,7% |
| Total | Staff | 36 | 54 | 90 |
| | % Line | 40,0% | 60,0% | 100,0% |
| | % Column | 100,0% | 100,0% | 100,0% |

Table 4 shows that of the 27 companies that saw their net income increase over the past two years, 88.9% tended to restate their financial statements. Among the companies whose net income remained stable, 47.9% manipulate their accounting records. Of the 15 that say their company's net income has declined, 46.7% restate their financial statements. A comparative analysis shows that the majority of firms whose net income has increased (44.4%) manipulate accounting records, while the majority of firms whose net income has remained stable (69.4%) do not manipulate accounting records. These statistics support the work of Saha (2019) who concluded that companies manipulate the results in order to publish small losses or small profits. The chi-square independence test presented in Table 5 indicates that there is a significant relationship at the 1% threshold between net income and accounting data manipulation.

Table 5. Influence of net income on the manipulation of accounting records.

|  | Value | ddl | Asymptotic significance (bilateral) |
|---|---|---|---|
| Pearson Chi-2 | 13,420*** | 2 | 0,001 |
| Likelihood ratio | 15,119 | 2 | 0,001 |
| Linear association by linear | 9,795 | 1 | 0,002 |
| Number of valid observations | 90 | | |

*** : Significant at the 1% level

(6) Influence of the level of liquidity on the manipulation of accounting records

Table 6 below shows the intensity of the relationship between the firm's level of liquidity and misinformation about the accounting reality.

Table 6. Level of liquidity and manipulation of accounting records.

| Liquidity level | | Manipulation of accounting records | | Total |
|---|---|---|---|---|
| | | No | Yes | |
| On the rise | Staff | 18 | 33 | 51 |
| | % Line | 35,3% | 64,7% | 100,0% |
| | % Column | 50,0% | 61,1% | 56,7% |
| Downward | Staff | 12 | 15 | 27 |
| | % Line | 44,4% | 55,6% | 100,0% |
| | % Column | 33,3% | 27,8% | 30,0% |
| Stable | Staff | 6 | 6 | 12 |
| | % Line | 50,0% | 50,0% | 100,0% |
| | % Column | 16,7% | 11,1% | 13,3% |
| Total | Staff | 36 | 54 | 90 |
| | % Line | 40,0% | 60,0% | 100,0% |
| | % Column | 100,0% | 100,0% | 100,0% |

Several lessons can be drawn from Table 6: of the 51 preparers of accounts questioned who saw their level of liquidity increase compared to previous years, 64.7% had to manipulate their financial statements. Among the 27 respondents whose liquidity level has decreased compared to previous years, 55.6% manipulate the accounting data. 50% of companies whose liquidity level remained stable manipulate accounting records. Chi-square Table 7 shows that there is no significant link between the firm's level of liquidity and the manipulation of records.

Table 7. Influence of the level of liquidity of the firm on the manipulation of the records.

| | Value | ddl | Asymptotic significance (bilateral) |
|---|---|---|---|
| Pearson Chi-2 | 1,193 | 2 | 0,551 |
| Likelihood ratio | 1,187 | 2 | 0,552 |
| Linear association by linear | 1,158 | 1 | 0,282 |
| Number of valid observations | 90 | | |

A part from the financial situation of the company, the literature reveals that certain characteristics of the company may be at the origin of the manipulation of the figures.

(7) Influence of company size on the manipulation of accounting figures

Table 8 shows the relationship between company size and number manipulation.

Table 8. Company size and manipulation of accounting records.

| Size of the company measured by turnover | | Manipulation of accounting records | | Total |
|---|---|---|---|---|
| | | No | Yes | |
| Less than 500 million | Staff | 18 | 5 | 23 |
| | % Line | 78,3% | 21,7% | 100,0% |
| | % Column | 50,0% | 9,3% | 25,6% |
| Between 500 million and 1 billion | Staff | 8 | 2 | 10 |
| | % line | 80,0% | 20,0% | 100,0% |
| | % Column | 22,2% | 3,7% | 11,1% |
| Between 1 billion and 1.5 billion | Staff | 2 | 12 | 14 |
| | % Line | 14,3% | 85,7% | 100,0% |
| | % column | 5,6% | 22,2% | 15,6% |
| 1.5 billion and 2 billion | Staff | 1 | 8 | 9 |
| | % line | 11,1% | 88,9% | 100,0% |
| | % Column | 2,8% | 14,8% | 10,0% |
| More than 2 billion | Staff | 7 | 27 | 34 |
| | % Line | 20,6% | 79,4% | 100,0% |
| | % Column | 19,4% | 50,0% | 37,8% |
| Total | Staff | 36 | 54 | 90 |
| | % Line | 40,0% | 60,0% | 100,0% |
| | % Column | 100,0% | 100,0% | 100,0% |

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Reading Table 8, we can draw several lessons: of the 25.6% of companies with less than 500 million CFA francs in turnover, 21.7% manipulate accounting records. Of the 10 companies with a turnover of between 500 million and 1 billion CFA francs, 20% restate their financial statements. 85.7% of companies with a turnover between 1 billion and 1 billion five hundred million CFA francs manipulate accounting records. Of the 10% of preparers of accounts whose turnover is between 1.5 billion and 2 billion CFA francs, 88.9% restate their financial statements. 79.4% of companies with a turnover over of 2 billion CFA francs manipulate accounting records. A comparative analysis indicates that the majority of firms with less than 500 million francs (50%) do not manipulate accounting records, while the majority of firms with turnover above of 2 billion CFA francs (50%) manipulate accounting records. The finding that emerges from these statistics is that enterprises with a turnover above of one billion CFA francs tend to produce more non-compliant financial statements. This finding supports the work of Ngantchou (2008) who said that large SMEs appear fiscally dishonest in reporting accounting data than very small enterprises. Referring to Table 9 of the chi-square test, we find that this relationship is significant at the 1% level.

Table 9. Influence of company size on the manipulation of accounting records.

|  | Value | ddl | Asymptotic significance (bilateral) |
|---|---|---|---|
| Pearson Chi-2 | 33,021*** | 4 | 0,000 |
| Likelihood ratio | 34,712 | 4 | 0,000 |
| Linear association by linear | 23,806 | 1 | 0,000 |
| Number of valid observations | 90 |  |  |

***: Significant at the 1% level

(8) Influence of the business sector on the manipulation of accounting records

Table 10 shows the intensity of the relationship between industry and the manipulation of accounting records.

Table 10. Business sector and manipulation of accounting records.

| Sector of activity | | Manipulation of accounting records | | Total |
|---|---|---|---|---|
| | | *No* | *Yes* | |
| Commerce | Staff | 22 | 12 | 34 |
| | % line | 64,7% | 35,3% | 100,0% |
| | % Column | 61,1% | 22,2% | 37,8% |
| Industry | Staff | 4 | 8 | 12 |
| | % Line | 33,3% | 66,7% | 100,0% |
| | % column | 11,1% | 14,8% | 13,3% |
| Service | Staff | 10 | 34 | 44 |
| | % Line | 22,7% | 77,3% | 100,0% |
| | % Column | 27,8% | 63,0% | 48,9% |
| Total | Staff | 36 | 54 | 90 |
| | % line | 40,0% | 60,0% | 100,0% |
| | % Column | 100,0% | 100,0% | 100,0% |

From this table, it can be seen that among the 37.8% of companies whose sector of activity is trade, 35.3% produce financial statements that do not reflect the accounting reality. Of the 13.3% whose sector of activity is industry, 66.7% produce false financial statements. As for the companies in the service sector, 77.3% produce accounting data that are far from reality and do not conform to the true and fair view. A comparative analysis shows that the majority of companies producing compliant financial statements (64.7%) are those whose sector of activity is trade, while the majority of companies presenting financial statements that do not reflect accounting reality (63%) are those whose sector of activity is service. These statistics make us understand

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that it is not only companies operating in the trade sector that manipulate accounting figures, as Ngantchou (2008) pointed out. The chi-square test across Table 11 supports our predictions, in that the link is significant at the 1% level.

Table 11. Influence of industry on the manipulation of accounting records.

|  | Value | ddl | Asymptotic significance (bilateral) |
|---|---|---|---|
| Pearson Chi-2 | 14,339*** | 2 | 0,001 |
| Likelihood ratio | 14,552 | 2 | 0,001 |
| Linear association by linear | 13,719 | 1 | 0,000 |
| Number of valid observations | 90 |  |  |

*** : Significant at the 1% level

Since the Chi-2 independence test does not specify the direction of the relationship and does not take into account the interrelationships that may exist between the variables, logistic regression was used to further investigate the predictions of the bivariate explanatory analysis.

### 4.2.2 Analysis of the determining factors in the manipulation of accounting records: Estimation of parameters by the "Logit" method

Table 12 presents the results of model estimation (2).

Table 12. Estimation of model coefficients (2).

|  | B | E.S. | Wald | ddl | Sig. | Exp(B) |
|---|---|---|---|---|---|---|
| **Debt level** |  |  | 5,963* | 2 | 0,051 |  |
| On the rise | -3,439 | 1,424 | 5,833** | 1 | 0,016 | 0,032 |
| Downward | -0,806 | 0,993 | 0,658 | 1 | 0,417 | 0,447 |
| **Net income** |  |  | 4,650* | 2 | 0,098 |  |
| On the rise | 3,224 | 1,546 | 4,353** | 1 | 0,037 | 25,139 |
| Stable | 1,699 | 1,086 | 2,447 | 1 | 0,118 | 5,469 |

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Table 12. (Continue) Estimation of model coefficients (2).

| | B | E.S. | Wald | ddl | Sig. | Exp(B) |
|---|---|---|---|---|---|---|
| **Liquidity level** | | | 5,325* | 2 | 0,070 | |
| Downward | 3,961 | 1,717 | 5,323** | 1 | 0,021 | 52,519 |
| Stable | 1,830 | 1,562 | 1,373 | 1 | 0,241 | 6,235 |
| **Turnover** | | | 13,797*** | 4 | 0,008 | |
| Between 500 million and 1 billion | 0,044 | 1,414 | 0,001 | 1 | 0,975 | 1,045 |
| Between 1 billion and 1.5 billion | 3,281 | 1,260 | 6,778*** | 1 | 0,009 | 26,598 |
| Between $1.5 billion and $2 billion | 5,279 | 2,659 | 3,941** | 1 | 0,047 | 196,081 |
| More than 2 billion FCFA | 4,989 | 1,957 | 6,495** | 1 | 0,011 | 146,755 |
| **Sector of activity** | | | 5,494* | 2 | 0,064 | |
| Industry | -1,287 | 1,657 | 0,603 | 1 | 0,437 | 0,276 |
| Service | 3,803 | 1,644 | 5,355** | 1 | 0,021 | 44,848 |
| Constant | -5,614 | 2,247 | 6,244** | 1 | 0,012 | 0,004 |

Chi-square value =68.991***    P =0.000

-2log-likelihood = 52.151   $R^2$ of Cox & Snell = 0.535

R² of Nagelkerke = 0.724    N= 90

***;** and *: Significant at the respective Levels of 1%, 5% and 10%.

The estimated results of model (2) reveal a negative and significant variable at the 5% level for the variable representing the unspecified factors (Constant). Moreover, the Chi-square statistic shows that the model is significant at the 1% level. We observe that all variables are significant at different thresholds. We conclude from the Nagelkerke R² that the variables used in the model to characterise the financial situation coupled with the characteristics of the firm explain 72.4% of the manipulation of accounting records in Cameroon.

Table 12 shows that the debt level variable has a significant negative influence at the 5% level on the manipulation of the accounting figures. This

result suggests that the propensity to manipulate accounting figures decreases as the level of indebtedness increases. This result is contrary to the findings of Mard (2004), according to whom the heavily indebted firm may have an incentive to manipulate its results upwards. This contradictory result is said to be due to the alternative mechanism known as the "Centrale of Risks", which was set up by the banks in Cameroon on the one hand and the Central Bank on the other, in order to get around the problem of account manipulation by managers. In such a context, the manipulation of accounts is of no use to the ruler vis-à-vis the banker. Financial debt therefore appears to be a regulatory element in the likelihood of manipulation of accounting information in Cameroon. This result makes it possible to reject hypothesis 1, which stipulates that *managers of heavily indebted companies tend to restate their financial statements.*

With regard to net income, we note that it has evolved positively and significantly at the 5% level with the modification of the financial statements so that they do not reflect the accounting reality. This result means that the probability of the companies in the sample producing financial statements that do not reflect reality is high when their net income varies upwards. This result can be explained by the fact that companies in Cameroon tend to favour tax optimisation by reducing the accounting result that serves as a basis for sharing between the company and the tax authorities. It should therefore be noted that the upward trend in accounting income may be a reason for companies to try to manipulate accounting records. This conclusion confirms the work of Balsam (1998) and Pfeiffer Jr (1998), who point out that in a context of weak performance, the preparers of accounts may choose, depending on the case, to record a maximum of losses, or on the contrary, to manage the accounting results upwards in order to disguise the company's financial difficulties. This result makes it possible to validate hypothesis 2,

which states that *companies whose objective is to pay less tax tend to restate their financial statements when their net income is positive.*

With regard to the level of liquidity, there is a positive and significant relationship at the 5% level between the level of liquidity and the chances of producing non-compliant financial statements. Thus, the chances of producing accounting data that do not reflect reality are high when the company's level of liquidity varies downwards. This result confirms the predictions made in that a low level of liquidity would reflect the risk that the firm would at some point be unable to meet its short-term maturities. Since the borrower's repayment capacity and financial risk represent one of the two key criteria which may influence the decision to grant bank credit, firms may therefore be tempted to manipulate the accounting data in order to project a better image to the financial institutions. This result validates *hypothesis 3, which stipulates that the probability of companies restating their financial statements is high when their level of liquidity is low*.

As regards the size of the company, Table 12 shows that it has a positive and significant influence with the probability of manipulation of the accounting records. This relationship is significant at the 1% level when the firm's turnover is between 1 and 1.5 billion CFA francs and at the 5% level when the firm's turnover exceeds 1.5 billion CFA francs. Thus, the probability of manipulating accounting figures is high when the enterprises are large. This conclusion reinforces that of Dumontier and Raffournier (1999) and Jeanjean (2001), who note that large firms always tend to manipulate their accounting data in order to reduce their results. *This result validates hypothesis 4 according to which the more the size of the company increases, the more the company manipulates the financial statements*.

Concerning the business segment variable, it can be seen from Table 12 that it has a positive influence at the 5% level on the risk of preparing financial statements that do not comply with the true and fair view. This result suggests that the likelihood of firms manipulating accounting figures increases when they start from the service sector. This result is contrary to that of Ngantchou (2008). Nevertheless, this result allows us to validate hypothesis 5, according to which firms in the *service sector also manipulate accounting records, just as firms in the trade sector do.*

Overall, these analyses show that the likelihood of companies producing non-compliant financial statements is high when: their company's net income is rising, when the company is large, when the company's liquidity level is falling, and when it is a service company. They also reveal that the likelihood of firms manipulating accounting data decrease when the volume of debt increases. In the end, we note that the financial situation, as well as certain characteristics of the firm identified in the literature, can be considered as determinants of the manipulation of accounting data in Cameroon.

## 5 Conclusion

This study deals with the factors that explain the manipulation of accounting data in an economy without an active financial market like Cameroon, with particular emphasis on the financial situation and characteristics of the firm. With reference to the literature, the manipulation of accounting figures was measured by the restatement of financial statements.

From the multi-varied analyses carried out on data obtained from a sample of 90 public limited companies operating in Cameroon, it was found that the financial situation and characteristics of the company seem to have a significant influence on the manipulation of accounting data. Indeed, the

results of the econometric estimation reveal that the likelihoods of a company producing financial statements that do not reflect the accounting reality increase with the net income, with the level of liquidity, with the size of the company and the sector of activity, but decrease with the level of indebtedness of the company.

While the results obtained by this study enrich the literature on work on accounting data manipulation in the Cameroonian context, they also open up other research prospects with regard to sample size, limiting managerial discretion in the manipulation of accounting records, studying other variables such as internal and external governance mechanisms (board of directors, shareholder structure and external audit) and studying interactions such as that between external audit, regulation and the tax environment on accounting data manipulation. Other research could also carry out a comparative analysis between SMEs and large companies, with a purpose of identifying which one manipulate accounting figures the more. Finally, in terms of methodology, the use of secondary databases would be necessary. Indeed, it would make it possible to improve the operationalization of the accounting data manipulation variable through the calculation of discretionary accruals.

## NOTES

1. American Institute of Certified Public Accountants (AICPA).
2. Beyond the fact that it has been treated more in developed countries compared to developing countries.

**References**

[1]   Agrawal, A., & Chadha, S. (2005). Corporate governance and accounting scandals. *Journal of Law and Economics*, *48*(2), 371-406.

[2]   Ali, U., Noor, M., Khurshid, M. K., & Mahmood, A. (2015). Impact of firm size on earnings management: A study of textile sector of Pakistan. *European Journal of Business and Management*, *7*(28), 47-56.

[3]   American Institute of Certified Public Accountants (AICPA). (2002). Consideration of fraud in a financial statement audit. In AICPA, Statement on Auditing Standards N 99.

[4]   Baghar, N. (2018). La gestion des résultats comptables: L'influence de la taille, de l'endettement et de la performance, Cas des sociétés marocaines cotées. *Revue Du Contrôle, De La Comptabilité Et De L'Audit*, *2*(3), 847-866.

[5]   Balsam, S. (1998). Discretionary accounting choices and CEO compensation. *Contemporary Accounting Research*, *15*(3), 229-252.

[6]   Beneish, M. D. (1997). Detecting GAAP violation: Implications for assessing earnings management among firms with extreme financial performance. *Journal of Accounting and Public Policy*, *16*(3), 271-309.

[7]   Breton, G., & Schatt, A. (2003). Manipulation comptable: Les dirigeants et les autres parties prenantes. *La Revue du financier*, *139*, 18-25.

[8]   Bruns, W., & Merchant, K. (1990). The dangerous morality of managing earnings, *Management Accounting*, *72*(2), 22-25.

[9]   Casta, J. F. (2000). Théorie positive de la comptabilité. FR: COLASSE.

[10]  Casta, J. F. (1997). La comptabilité et ses utilisateurs. FR: Economica.

[11]  Chang, C. C., Kao, L. H., & Chen, H. Y. (2018). How does real earnings management affect the value of cash holdings? Comparisons between

information and agency perspectives. *Pacific-Basin Finance Journal*, *51*(C), 47-64.

[12] Charreaux, G. (2000). Encyclopédie de comptabilité, contrôle de gestion et audit. FR: Economica.

[13] Chotin, R. (1994). Le fisc, la petite entreprise et l'expert comptable: Jeux d'acteurs et stratégies judicieuses. FR: LGDJ.

[14] Colasse, B. (2009). Théories comptables. USA: HAL.

[15] Collette, C., Richard, J., & Richard, J. (2002). Les systèmes comptables français et anglo-saxons: Normes IAS. FR: Dunod.

[16] Cormier, D. (2002). Comptabilité anglo-saxonne et international. FR: Economica.

[17] DeAngelo, H., DeAngelo, L., & Skinner, J. (1994). Accounting choice in troubled companies. *Journal of Accounting and Economics*, 17(1-2), 113-143.

[18] Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *Accounting Review*, *70*(2), 193-225.

[19] Djoumessi, F., & Souleymanou, K. (2019). La Vérité des nombres comptables estimés à partir des réalités fiscalo-comptables des entreprises au Cameroun. MG: Revue Africaine et Malgache de Recherches Scientifiques (RAMRES).

[20] Dumontier, P., & Raffournier, B. (1999). Vingt ans de recherche positive en comptabilité financière. *Comptabilité-Contrôle-Audit*, *5*(3), 179-197.

[21] Dupuy, Y., Malo, J. L., & Teller, R. (2000). Recherches et pratiques en comptabilité, contrôle et audit. *Recherches et pratiques en gestion*, 29-41.

[22] Essomba, A. C. (2004). Compétitivité bancaire, asymétrie d'informations et mutations de l'environnement réglementaire prudentiel, *Revue Camerounaise de Management*, (13), 27-35.

[23] Evina, J. F. N. (2010). Système de gouvernance et performance des entreprises camerounaises: Un mariage harmonieux. *Revue des Sciences de Gestion*, *3*, 53-62.

[24] Feudjo, J. R., & Tchankam, J. P. (2012). Les déterminants de la structure financière: Comment expliquer le «paradoxe de l'insolvabilité et de l'endettement» des PMI au Cameroun? *Revue Internationale P.M.E.*, *25*(2), 99-128.

[25] Foka, T. A. G., Hikouatcha, K. P. D., Mbaduet, J. F., & Ndassi, Y. J. (2018). Qualité d'audit, concentration de l'actionnariat et reporting financier: une étude auprès des préparateurs des comptes au Cameroun. *Journal of Academic Finance*, *9*(1), Spring 27-54.

[26] Healy P., & Wahlen J. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, *13*(4), 365-383.

[27] Hernandez, E. M. (1997). Le management des entreprises africaines. FR: L'Harmattan.

[28] Holmes S., & Nicholls, D. (1988). An analysis of the use of accounting information by Australian small business. *Journal of Small Business Management*, *26*(2), 57-68.

[29] Jeanjean, T. (2001). Incitations et contraintes à la gestion du résultat. *Comptabilité-Contrôle-Audit*, *7*(1), 1-18.

[30] Khuong, N. V., Liem, N. T., & Minh, M. T. H. (2020). Earnings management and cash holdings: Evidence from energy firms in Vietnam. *Journal of International Studies*, *13*(1), 247-261.

[31] Labelle, R. (1990). Bond covenants and changes in accounting policy: Canadian evidence. *Contemporary Accounting Research*, *6*(2), 677-698.

[32] Mamo, J., & Aliaj, A. (2014). Accounting manipulation and its effects in the financial statements of Albanian entities. *Interdisplinary Journal of Research and Development*, *1*(2), 55-60.

[33] Mard, Y. (2004). Les sociétés françaises cotées gèrent-elles leurs chiffres comptables afin d'éviter les pertes et les baisses de résultats ? *Comptabilité, Contrôle, Audit*, *10*(2), 73-98.

[34] Mard, Y., & Marsat, G. (2012). Gestion des résultats comptables et structure de l'actionnariat: Le cas Français. *Comptabilité-Contrôle-Audit*, *18*(3), 11-42.

[35] Maydew, E. L. (1997). Tax-induced earnings management by firms with net operating losses. *Journal of Accounting Research*, *35*(1), 83-96.

[36] Morse, D., & Richardson, G. (1983). The LIFO/FIFO decision. *Journal of Accounting Research*, *21*(1), 106-127.

[37] Ndjanyou, L. (2001). Risque, Incertitude et Financement bancaire de la PME camerounaise: L'exigence d'une analyse spécifique du risque. USA: Center for Economic Research on Africa (CERAF).

[38] Ndjetcheu, L. (2010). *Fiscalité et stratégie de choix comptables des dirigeants de PME au Cameroun: une lecture croisée au moyen du modèle des parties prenantes de Mitchell, Agle et wood (1997)*, Publication du CRECCI, ouvrage collectif sous la direction du Pr Jean Guy Degos sur le thème «Diversités et convergences».

[39] Ngantchou, A., & Elle, N. (2018). La manipulation des chiffres comptables en contexte africain: La pertinence de l'hypothèse des coûts politiques. 39ème congrès de l'Association Francophone de Comptabilité (AFC).

[40] Ngantchou, A. (2008). Recentrage du cadre comptable, durcissement de l'environnement fiscal et persistance de la gestion des données

comptables: Une étude du comportement des PME camerounaises. 29ème Congrès de l'AFC, ESSEC-France.

[41] Niskanen, J., & Keloharju, M. (2000). Earnings cosmetics in a tax-driven accounting environment: Evidence from finnish public firms. *European Accounting Review*, *9*(3), 443-452.

[42] Othman, H. B., & Zéghal, D. (2006). Analyse des déterminants de la gestion des résultats: Cas des firmes canadiennes françaises et tunisiennes. TN: HAL.

[43] Pfeiffer Jr, R. J. (1998). Market value and accounting implications of off-balance-sheet items. *Journal of Accounting and Public Policy*, *17*(3), 185-207.

[44] Raffournier, B. (1990). La théorie positive de la comptabilité: Une revue de la littérature. *Economies et Société*, *16*, 137-166.

[45] Ramadan, I. Z. (2013). The impact of company size on earnings management practices: An empirical study on the Jordanian industrial sector. *Working papers, Applied Science Private University.*

[46] Riahi- Belkaoui, A. (1992). Executive compensation, organizational effectiveness, social performance and firm performance: An empirical investigation. *Journal of Business Finance and Accounting*, *19*(1), 25-38.

[47] Richardson, S. A., Tuna, A., & Wu, M. (2002). Predicting earnings management: The case of earnings restatements. Available at SSRN 338681.

[48] Rossignol, J. L. (2002). La politique fiscalo-comptable des entreprises françaises: Une étude exploratoire. *Comptabilité-Contrôle-Audit*, *8*(1), 89-110.

[49] Rusdiyanto., & Narsa, I. M. (2020). The effect of company size, leverage and return on asset on earnings management: Case study Indonesian. *Revista ESPACIOS*, *41*(17), 25-34.

[50] Saha, S. C. (2019). La détection de la manipulation des chiffres comptables: les perspectives de la réconciliation de l'approche par les seuils à l'approche par les accruals discrétionnaires. *Thèse de doctorat en Sciences de Gestion, Université de Douala.*

[51] Scholes, M., Wilson, G., & Wolfson, M. (1992). Firms responses to anticipated reductions in tax rates-the tax-reform act of 1986. *Journal of Accounting Research*, *30*, 161-185.

[52] Spicer, M. W., & Lundstedt, S. B. (1976). Understanding tax evasion. *Public Finance = Finances publiques*, *31*(2), 295-305.

[53] Tillman R. (2009). Reputations and corporate malfeasance: Collusive networks in financial statement fraud. *Crime, Law and Social change*, *51*(3-4), 365-382.

[54] Truman B. (1990). Theories of earnings-announcement tinning. *Journal of Accounting and Economics*, *13*(3), 285-301.

[55] Trussel, J. (2003). Assessing potential accounting manipulation: the financial characteristics of charitable organizations with higher than expected program-spending ratios. *Nonprofit and Voluntary Sector Quarterly*, 32(4), 616-634.

[56] Vionea, M. M., & Dimitriu, O. (2014). Manipulating user behavior through accounting information. *Procedia Economics and Finance*, *15*, 886-893.

[57] Wamba, H., & Tchamanbé-Djiné, L. (2002). Information financière et politique d'offre de crédit bancaire aux PME: Cas du Cameroun. *Revue internationale P.M.E.*, *15*(1), 87-114.

[58] Watts, R. L., & Zimmerman, J. L. (1978). Toward a positive theory of the determination of accounting standards. *The Accounting Review*, *53*(1), 112-134.

[59] Watts, R. L., & Zimmerman, J. L. (1986). Positive accounting theory. USA: Prentice-Hall.

[60] Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: A ten year perspective. *The Accounting Review*, *65*(1), 131-156.

**Appendix**

<u>**QUESTIONNAIRE**</u>

Dear Madam, dear Sir: - Director General;

- Deputy Managing Director;

- Accounting and Financial Director;

This questionnaire, which is part of an academic research project, is a survey of Cameroonian business leaders. Your assistance is absolutely necessary for the realization of this research work which deals with **the determinants of the quality of accounting and financial information in companies in Cameroon**. We would like to ask you to answer this questionnaire by simply ticking the corresponding box with a cross (X) or by filling in the number of your choice in the box designed to collect your opinion.

Aware of the embarrassment we are causing, we ask you, to kindly help us in our research by answering this questionnaire.

## I.      CHARACTERISTICS OF THE RESPONDENT

| N° | QUESTIONS | CODE |
|----|-----------|------|
| 1 | **What position do you hold in the company?**<br>1-Director General    2-Deputy Director General      3-Accounting and Financial Director | /____/ |
| 2 | **How long have you held this position in the company?**<br>1-Less than 2 years           2- Between 2 and 5 years            3- Between 5 and 8 years   4- Between 8 and 10 years          5 - More than 10 years | /____/ |
| 3 | **You are:**       1-A man                  0-A woman | /____/ |
| 4 | **Over what interval can you place your age?**<br>1-Less than 30 years old   2- Between 30 and 35 years old   3- Between 35 and 40 years old     4-Between 40 and 45 years old     5- More than 45 years old | /____/ |
| 5 | **What is your level of study?**<br>1-Primary    2-Secondary    3-Superior first cycle     4-Superior second cycle | /____/ |

## II.     CHARACTERISTICS OF THE COMPANY

| N° | QUESTIONS | CODE |
|----|-----------|------|
| 6 | **What is the legal status of your company?**<br>1- Public Limited Company with Board of Directors     0- Public Limited Company without Board of Directors | /____/ |
| 7 | **What is your main sector of activity?**<br>1- Trade              2-Industry              3-Service | /____/ |
| 8 | **Over what range can you place your company's turnover (in CFA Francs)?**<br>1-Less than 500 million                  2-Between 500 million and 1 billion<br>3-Between 1 and 1.5 billion                  4-Between 1.5 and 2 billion<br>5- More than 2 billion | /____/ |
| 9 | **Over what interval can you locate the number of employees in your company?**<br>1-Less than 50    2- Between 50 and 100      3- Between 100 and 150<br>4- Between 150 and 200     5- More than 200 | /____/ |

### III. III. FINANCIAL SITUATION OF THE COMPANY AND QUALITY OF FINANCIAL INFORMATION

| N[0] | QUESTIONS | CODE |
|---|---|---|
| 10 | **Over the past two years, how can you judge the development of your company's net profit?** <br><br> *1-Increase          2- Stable                    3-Decrease* | /___/ |
| 11 | **Over the last two years, how can you judge the company's total debt level?** <br> *1-Stable            2-Increase          3-Decrease* | /___/ |
| 12 | **Over the last two years, how do you view the evolution of your company's liquidity or cash position?** <br> 1-Increase              2-Decrease              3-Stable | /___/ |
| 13 | **Does your statutory auditor or audit firm belong to an international network?** <br>  **1-** Yes                                        0- No | /___/ |
| 14 | **At the request of your statutory auditor, have you restated your financial statements during the past financial year?** <br> 1-Yes                                        0-No | /___/ |

**THANK YOU ONCE AGAIN FOR YOUR CONTRIBUTION TO THE EVOLUTION OF SCIENCE!!!**