# Earnings Management, the Influence of Size, Indebtedness and Performance: The Case of Moroccan Listed Companies

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# ABSTRACT

This study attempts to contribute to the research literature in the field of management of earnings results and how it is put into practice by Moroccan listed companies. The main question that the paper attempted to investigate is whether these companies' managers use accounting results management in an opportunistic way. The study was conducted on a sample of 54 companies on the Casablanca Stock Exchange between 2014 and 2016. The findings indicate that the guarantee of a stock market valuation to influence investors' decisions is not at the heart of results management in Moroccan listed companies. Nevertheless, the importance of the size factor and the satisfaction of the conditions imposed by the creditors to justify the level of the discretionary behavior of the managers in terms of accounting and financial information are noteworthy.

Keywords: Accounting, Moroccan listed companies, Results management, political finance, Size, Stock exchange performance.

# **INTRODUCTION**

For the last decades, the rhythm of the economic game's mutations has been happening at a high speed and the new techniques have experienced a great development. The role CIC played by the financial markets has also become essential publish their accounts in accordance with this new standard. and more destabilizing. Moreover, their hold on the life of companies has increased with the growth of the number of listed companies and with the large number of individual shareholders making use of stock markets. A new dimension is conferred on the accounting. Accounting no longer consists of recording simple monetary transactions materialized by supporting documents and characterized by arc all What are the determinants of the management of payment deadlines very close to the delivery dates, but it loome accounting results at the level of listed Moroccan also aims to understand phenomena requiring valuations, namely, estimation, expectations, as well as speculations: 2456-6 depreciation of fixed assets, depreciation of inventories etc. However, the assignment of values to operations or phenomena presupposes a certain capacity of judgment and leads to a selection of arbitrary, disputable and disputed choices. Thus, with rudimentary knowledge and a little practice in reading company accounts, it appears that the balance of the income statement is not an arithmetic objective balance but rather the result of construction and the outcome of evaluation, which can lead to different figures. Thus, the accounting results are a variable that managers can act upon. That is what has been referred to as results management (Shipper, 1989).

While it is legal, the management of accounting results remains problematic insofar as it results in the reduction of the transparency of the financial statements and alters their comparability.

Two decades ago In Morocco, the financial market has undergone several reforms. These focused on: institutional reorganization, product development (setting up of market derivatives) and strengthening of the regulatory actions of incumbents. The stock market has been shaken by several financial scandals since the financial crisis of 2007. The cases of accounting combinations are characterized by their frequency but also by the fact of reaching more and more important amounts. It is the massive accounting

manipulations giving a false image of the situation which are at the origin of the vast majority of financial scandals. In Morocco, most listed companies abide by the IFRS and The objective of this article is to analyze the management of results at the level of Moroccan listed companies. It tries to seek answers to the question about how the public perceives of the reliability and transparency of the financial statements of listed companies. It is therefore about answering the two following questions:

- companies? (Taxation, the constraints exerted by the banks or the stock market performance).
- ≻ What are the means of highlighting the management of results in the accounts established by listed Moroccan companies?

To answer these questions, this article is divided into three sections. In the first section, we will introduce the literature review concerning the definitions and the forms of results management. Then, the second section will be devoted to the analysis of explanatory theories. And at the end of the article, we will present the sample, the methodology of the empirical study as well as the results.

# 1. Literature Review

# 1.1 Definitions:

Result based management is different from accounting based management. The results management means the different accounting practices that take place in compliance with accounting standards. On the other hand, the account management includes all the practices that are done within the limits and outside the accounting rules. It is often associated with the notion of fraud.

According to Davidson (1987), the earnings management consists of taking deliberate measures within the constraints of accounting standards in order to reach a result goal. It occurs in total respect of the legal framework while using the room for maneuver left by the accounting frame of reference.

Meanwhile, K.Shipper (1989) defines this practice as "the deliberate intervention in the process of the presentation of financial information in order to make personal gains». It results from the wiggle room available to leaders in terms of accounting options and of evaluation even if the accounting information is standardized. For example, the leaders exert their discretionary choices particularly in terms of valuation of depreciations and provisions. This refers to a valuation that is subjective since it is based on hypotheses of the evolution of a market, a cost, and a risk. Besides, some management decisions taken by the managers may influence the result. It's about cutting the research budget or reducing spending on advertising or the early transfer or delayed assets. It is the same for the choice between different stock accounting methods (CMUP, FIFO...) and also the choice between linear or declining balance methods. The published results are thus bound to be influenced by accounting and management choices.

Degeorge, Patel and Zeckhauser (1999) indicate that earnings management is "the use of managerial discretion to influence the outcome disseminated to stakeholders" while Stolowly and Breton (2003) have defined it as: "the attitude of increasing or decreasing the recorded net result".

These definitions are not limited to the consideration of opportunistic motivations to explain earnings management. Besides, other factors can be at the origin of the modulation of the results (the efficiency of the contracts or a will of signal). They basically refer to accounting options. However, the leaders may want to edit the publications of accounting data through other modes of action (schedule of investments, methods of financing, modulation of current expenditure from one year to another). They do not include the possibility of managing the results through the actual activities of the company.

# 1.2 Earnings management Techniques:

According to Scott, earnings results management takes the following forms:

- Clearing accounts (big bath accounting): this management mode consists of publishing a very important loss that is uncommon with the company's economic results. This happens in case of organizational stress such as change of leaders. Indeed, the policies adopted by the new leaders consist of reducing the first exercise's results to better increase them in the next exercise. Thus, the losses that are the responsibility of the predecessor are written off and the reputation of the leader is preserved.(Murphy et Zimmeran,1993)
- The minimization of results: it consists of minimizing (but not necessarily making negative) the published results. It aims at minimizing political costs, namely reducing tax costs.
- The maximization of the results: it aims at increasing the published result instead of its real value. This is done opportunistically: to mask the visibility of a deteriorated performance or to avoid a contractual clause or to maximize profitability. (Skinner, 1993; Gupta, 1995; Pfeiffer, 1998)
- The smoothing of the results: it is not about choosing a direction at the evolution of the published results but an evolution rhythm. More precisely, results are considered smoothed when the earnngs management results in reducing the variance of the published results. The results' fluctuations are reduced by transferring sums

from one year to another. The profits produced follow a regular growth curve. This results in the reduction of the informative value of the declared results.(for a synthesizer, check Chalayer, 1995)

# 2. Explanatory theories,:

Earnings results management complies with current accounting standards. Among the explanatory theories of results management, we can state the theory of the agency, the economic theory of regulation and the positive theory of accounting (in particular, the politico-contractual theory) which borrows its model from the first two theories.

# 2.1 Agency theory:

According to this theory, Jensen and Meckling (1976) consider that the shareholders agree to deliver a management mandate to the managers in exchange for transparency of their actions and performance. However, the informed agents can privilege their own interests at the expense of other agents (the shareholders, the creditors). Because of these latent conflicts of interest and the consequences they engender, accounting measures play a key role in the monitoring of contracts. Accounting is at the heart of agencies' rulings. Thus, the problem of the choice of accounting methods (or norms) must be formulated from models referring to the economic rationality of the agents.

# 2.2 The theory of economic regulation:

This theory developed by Posner (1974) postulates that the political process is apprehended as a competition between individuals in order to maximize their interests. The premise adopted by this theory is that the aim of regulation is to make transfers of wealth. The earning results accounting is used as a technical argument to achieve this objective. Because of their "political visibility", large companies are most exposed to these political decisions. This translates into costs called political costs. To make such costs, these companies will tend to manage their outcome so as to not attract too much attention from the legislator and policies. This translates into costs, these companies will tend to manage their outcome so as not to attract too much attention from the legislator and policies.

# 2.3 The positive accounting theory (political-contract heory)

The third theory is the positive accounting theory (Watts and Zimmerman 1985, 1990). According to this theory, the published accounting documents, far from being the synonym of transparency, may be subject to non-fraudulent manipulations. They skew the investor's opinions. This theory is based on a political and contractual vision of the organizations. This theory adopts the following postulate: The leaders, the shareholders, the regulators, and the politicians are rational and try to maximize their usefulness. That usefulness is directly tied to their remuneration, and therefore to their wealth (Belkaoui, 1992). According to Dupy and Al (2000), this theory allows "the understanding of the companies' accounting choices from the agency's relationships and political costs». It borrows its models from the agency theory and the economic regulation theory. The company's political and contractual obligations, such as the debt contracts, the remuneration system of its employees and the potential political costs can bring the leaders to manage the results.

The positive accounting theory, in particular the political and contract theory branch, consists of explaining and predicting the accountants' or the leader's behavior in terms of accounting methods.

Three hypotheses are at the origin of the result's management in the frame of this theory: the hypothesis of the remuneration, the hypothesis of the debt and the hypothesis of the size. These hypotheses have aroused a big amount of empirical research that are often divergent.

#### 2.3.1 the hypothesis of remuneration:

In the context of the conflict of interest between shareholders and managers, the companies that are seeking to limit the opportunistic behavior of managers, granting them profit-sharing plans refer to accounting indicators. This leads to the formulation of the "remuneration hypothesis" according to which managers tend to favor accounting methods like increasing the result. Table 1 below summarizes the results of the studies that were conducted to validate this hypothesis.

| Tuble 1111 by nelection of the studies valuating the remainer ation hypothesis |      |               |   |            |  |  |  |
|--|------|---------------|---|------------|--|--|--|
| Authors  | date | Study context | Results   | hypothesis |  |  |  |
| Healy  | 1985 | USA           | The correlation between the change in accounting procedures and the adoption or modification of a bonus scheme.                   | Validated. |  |  |  |
| Holthaus<br>En&al  | 1995 | USA           | managers manipulate profits down when their bonuses are at their maximum  | Validated. |  |  |  |
| Gaver&al.  | 1995 | USA           | when the result falls below the lower limit, managers choose the discretionary expenses that increase the result (and vice versa) | Validated. |  |  |  |
| Jeanjean   | 2001 | France        | abandons the hypothesis of remuneration   | validated  |  |  |  |
| Source, developed by the author  |      |               |   |            |  |  |  |

# Table 1: A Synthesis of the studies validating the remuneration hypothesis

**Source:** developed by the author.

#### 2.3.2 The debt hypothesis:

This hypothesis is formulated taking into account the loan contracts, which include restrictions in the form of accounting ratios. The inclusion of these clauses aims to restrict the action of leaders and limit the transfer of wealth at the expense of creditors. According to this hypothesis, indebted companies prefer increasing the result as an accounting method.

The following table highlights the results of the studies carried out to validate this hypothesis in America and France.

| Table 2 Results of studies testing the hypothesis of debt. |      |               |   |                     |  |  |  |  |
|--|------|---------------|---|---------------------|--|--|--|--|
| Authors Date St  |      | Study context | Results   | Hypothesis          |  |  |  |  |
| Duke & Hunt  | 1990 | USA           | The debt ratio is not enough on its own to be a proxy for the existence of debt commitments | Partially validated |  |  |  |  |
| Press & Weintrop   | 1990 | USA           | Using another proxy, such as leverage   | Partially validated |  |  |  |  |
| DeAngelo & al.   | 1994 | USA           | companies' accounting choices reflect their difficult financial situations                  | Not validated       |  |  |  |  |
| Jeanjean   | 2001 | France 🔗      | different economic and social context   | Not validated       |  |  |  |  |
| <b>Course</b> , developed by the outhor                    |      |               |   |                     |  |  |  |  |

## Table 2- Results of studies testing the hypothesis of debt:

Source: developed by the author.

The respect of the restrictive clauses incites the leaders to increase the results. These are current practices that are widespread especially in the United States or in Canada. On the other hand, in France or in Morocco, it is the real guarantees which ensure the protection of the social creditors.

#### the size hypothesis. 2.3.3

In relation with the political environment, companies seeking to avoid the risk of emergence of tax or administrative regulations, reduce their "political visibility" adopting the most neutral profile in their dealings with the general public or the political class. The assumption of the size of large firms in favor of discounting accounting methods is formulated. The following table presents the results of studies of the size hypothesis.

| Authors Date Study context       |                                      | Results  | Hypothesis  |  |  |  |  |
|----------------------------------|--------------------------------------|--|---|--|--|--|--|
| Zmijewski & 1981 USA<br>Hagerman |                                      | the political costs are an incentive for a strategic management of the result chosen by the leaders                          | Validated   |  |  |  |  |
| 1983                             | USA                                  | the political costs encourage companies to choose the method of accounting for R & D costs                                   | Validated   |  |  |  |  |
| 1981                             | USA                                  | Large firms capitalize the interests that are tied to capitals   | Not<br>validated  |  |  |  |  |
| 1991                             |                                      | - Companies targeted by the SEC  |   |  |  |  |  |
| 1992<br>1997                     | USA                                  | -Companies investigated for antitrust<br>-Business enterprises in the cable industry   | Validated   |  |  |  |  |
|                                  | 1981<br>1983<br>1981<br>1991<br>1992 | 1981         USA           1983         USA           1981         USA           1991         USA           1992         USA | DateStudy contextResults1981USAthe political costs are an incentive for a strategic<br>management of the result chosen by the leaders1983USAthe political costs encourage companies to choose the<br>method of accounting for R & D costs1981USALarge firms capitalize the interests that are tied to<br>capitals1991- Companies targeted by the SEC1992USA- Companies investigated for antitrust |  |  |  |  |

#### Table 3: A synthesis of studies using the Size hypothesis

**Source:** developed by the author.

The motivations that can lead to the management of the accounting results are thus specified according to the positive accounting theory. This theory is therefore based on the use of accounting figures to manage contractual issues that are mainly related to the debt contract, the remuneration contract and political costs.

# 2.4 the measurement model of results management:

To measure earnings management, several models have been developed and have been the subject of several improvements. We distinguish the accrual-based models of Healy (1985) and De Angelo (1986). Healy considers that any variation in the level of the total accruals between two periods is awarded at the discretion of the managers.

Empirical studies are necessary to investigate the hypotheses in the Moroccan context by using the model of evaluation of the earnings management based on the discretionary accruals. To measure the earnings management of the results starting from the accruals, one needs to extract total accruals part at the discretion of the directors («accruals" discretionary).

# 3. Methodology and results

# 3.1 Methodology:

This section introduces the sample of the study, the data as well as the description of the variables.

# 3.1.1: The sample

The analysis is based on a hypothetic deductive approach inspired by theory. This approach aims to validate the following hypotheses:

H1: Debt is linked to upward management of earnings.

- H2: The size of the company influences the management of earnings downward (political costs)
- H3: The stock market performance affects earnings' management upward.

The hypothesis of remuneration is not retained because it requires information on the variable of the remuneration of the managers. This choice is also justified by the difficulties in accessing the information needed on the ground.

The study focuses on all the companies listed on the Casablanca Stock Exchange during the year 2017 (our initial sample), in 75 companies. Excluding financial companies: banks, finance companies, insurance companies (because of the specificities related to their accounting data and their financial communication). Our final sample include exclusively industrial and commercial companies: 55 companies. The accounting data was mined from the website of the Moroccan Capital Market Authority (the AMMC) for the years 2014 to 2016. The financial data are from the financial year????

# 3.1.2: the variables:

The size: the logarithm of total assets.

The debt: debt rate=financial debts fin/ Equity fin N

Stock market performance: change in the stock market price.

Discretionary "accruals" (AC DISC): As indicated in the literature on this subject, the totals of the year and the average of the total accruals for the last three years. The total accruals are calculated for each year by extracting the net result from the free cash flow.

AC DISC= total accruals N- average of total accruals for the last three years.

Total accruals= net profit-free cash flow.

Free cash flow= CAF- variation of the WCR- investment expenditure.

# 3.2: Results:

# Table 1: The sample companies' characteristics: the size, debt and market performance.

| Total sample                      | Average | median  | standard deviation | minimum  | maximum  |  |  |
|-----------------------------------|---------|---------|--------------------|----------|----------|--|--|
| CA(millions of dirhams)           | 1508,59 | 529,78  | 2092,6             | 0,136549 | 8172,84  |  |  |
| Total assets(millions of dirhams) | 2963,82 | 1061,83 | 4816,87            | 41,98    | 21900,14 |  |  |
| Indebtedness                      | 17,34%  | 5,91%   | 81,49%             | -445%    | 290%     |  |  |
| Change in the stock market price  | 51,73%  | 20,84%  | 109,76%            | -71%     | 447%     |  |  |
| Size                              | 20,7643 | 20,7833 | 1,54530            | 17,55    | 23,81    |  |  |
|                                   |         |         |                    |          |          |  |  |

Source: developed by the author.

There is a slightly low debt ratio in our total sample. It is 17.34% on average. The stock market performance is positive + 51% on average and + 20% on the median with a strong dispersion towards high values. The average size of our sample is 20.76.

| Table 2: Measurement of the management of statistical results for total accruals and discretionary ac | cruals |
|---|--------|
|   |        |

| Table 2. Measurement of the management of statistical results for total accruais and discretional |          |                    |            |            |         |  |  |  |
|---|----------|--------------------|------------|------------|---------|--|--|--|
|   | Average  | Standard deviation | Minimum    | Maximum    | Median  |  |  |  |
| Total accruals N-2 (millions of dirhams)  | 29,9575  | 436,2806           | 1016,6262  | -2464,3875 | 21,3278 |  |  |  |
| Total accruals N-2/total assets N-2   | 0,0446   | 0,11039            | -0,24      | 0,40       | 0,388   |  |  |  |
| Total accrualsN-2(millions of dirhams)  | -6,1011  | 380,2095           | -973,6995  | 2044,86    | 5,9454  |  |  |  |
| Total accruals N-1/total assets N-1   | 0,0551   | 0,29027            | -0,58      | 1,82       | 0,189   |  |  |  |
| Total accruals N(millions of dirhams)   | 296,1284 | 1854,5542          | -1010,4269 | 12658,4920 | 3,5709  |  |  |  |
| Total accruals N/total assets N   | 0,0620   | 0,31770            | -0,83      | 1,58       | 0,0105  |  |  |  |
| DISC Accruals   | 195,7916 | 1234,6194          | 770,0726   | 8455,6361  | -0,1507 |  |  |  |
| DISC Accruals/Totals assets N   | 0,0141   | 0,17935            | -0,59      | 0,67       | -0,0005 |  |  |  |
| Source developed by the author  |          |                    |            |            |         |  |  |  |

Source: developed by the author.

This table shows that the total accruals are trending upwards during the 2014-2016 period. The table also shows that the total accruals are negative over the period 2015. This situation assumes the existence of a management of the downward earnings. They become positive in 2016 thus representing 6.20% of the total assets during this period. This trend is not significant enough to make 2016 accruals too important.

In relation to previous empirical studies, this finding is justified by the fact that our study concerns a sample made up of companies that are subject to the rules of the stock market, one of the characteristics of which is transparency through the publication of quality information unlike unlisted companies.

This finding is also confirmed by the fact that the discretionary accruals only represent 1.41% of total assets in average.

| Table 3: Correlations. |                       |         |  |  |  |  |
|------------------------|-----------------------|---------|--|--|--|--|
|                        |                       | AC DISC |  |  |  |  |
|                        | Pearson's correlation | -,024   |  |  |  |  |
| Indebtedness           | Sig. (bilateral)      | ,866    |  |  |  |  |
|                        | Ν                     | 51      |  |  |  |  |
|                        | Pearson's correlation |         |  |  |  |  |
| Size                   | Sig. (bilateral)      | ,037    |  |  |  |  |
|                        | Ν                     | 52      |  |  |  |  |
|                        | Pearson's correlation | -0,25   |  |  |  |  |
| Course variation       | Sig.(bilateral)       | ,863    |  |  |  |  |
|                        | Ν                     | 50      |  |  |  |  |
|                        |                       |         |  |  |  |  |

Source: developed by the author.

This table shows that in 95% of the cases, there is a positive significant correlation between the discretionary accruals and the size of the company (which means that the bigger the size of the company, the higher the discretionary accruals are, and vice versa. In other terms, the larger the size, the more likely the leaders of companies will adopt accounting choices that influence the results); however, this correlation remains rather weak.

On the other hand, there is no significant dependence between discretionary accruals and indebtedness, as well as between discretionary accruals and price movement with a 95% level of significance.

The respect of indebtedness contracts is not an objective of earnings management for the targeted Moroccan listed companies. In the Moroccan context, the bank loans are accompanied by important guarantees (hypotheses or pledges of trade funds) therefore, even in\_the presence of a bankable balance sheet; it is not possible for the company to access loans without guarantees. This justifies the absence of link between the debt and the management of the results among the listed Moroccan companies. However, this observation must be verified through the analysis of the total accruals at the level of the highly-indebted companies and those which are low indebted by selecting three categories of companies: the largest, the large and the smaller.

Moreover, given a positive average market performance at the level of listed Moroccan companies, earnings management cannot be intended to mask the visibility of poor performance.

For an in-depth analysis, we subdivided the study sample into three sub-samples: the largest companies (size>21.73), large companies (size between 19.6 and 21.73), and the smallest companies (size<19.6).

The results of the descriptive statistics for CA variables, total assets, debt, and price change for the three sub-samples are summarized in the table below:

| Table 4: relationship size, CA, total assets, indebtedness, variation |                       |                       |         |           |  |  |  |
|---|-----------------------|-----------------------|---------|-----------|--|--|--|
| Size_moy  | CA N                  | A N Total assets N    |         | Variation |  |  |  |
| (grouped by lockers)  | (millions of dirhams) | (millions of dirhams) | Ν       | course    |  |  |  |
| Average   | 166,92                | 190,37                | 5,05%   | 0,4996    |  |  |  |
| Median  | 72,032                | 207,94                | 0%      | 0,0145    |  |  |  |
| <19,60 Standard deviation   | 188,96                | 102,60                | 10,41%  | 1,44898   |  |  |  |
| Minimum   | 0,13                  | 41,98                 | 0%      | -0,56     |  |  |  |
| Maximum   | 563,75                | 316,19                | 32%     | 4,47      |  |  |  |
| Average   | 877,03                | 1220,02               | 5,37%   | 0,5322    |  |  |  |
| Median  | 531,67                | 1023,13               | 11,06%  | 0,1678    |  |  |  |
| 19,60-21.72 Standard deviation  | 962,56                | 1063,17               | 100,59% | 1,12133   |  |  |  |
| Minimum   | 239,62                | 196,86                | -445%   | -0,71     |  |  |  |
| Maximum   | 3944,40               | 5469,81               | 152%    | 4,37      |  |  |  |
| Average   | 3723,96               | 8273,81               | 47,46%  | 0,5064    |  |  |  |
| Median  | 3943,29               | 6019,18               | 35,40%  | 0,5957    |  |  |  |
| 21,73+ Standard deviation   | 2646,64               | 6438,21               | 73,48%  | 0,80654   |  |  |  |
| Minimum   | 3,40                  | 2540,20               | 0%      | -0,54     |  |  |  |
| Maximum   | 8172,84               | 21900,14              | 290%    | 2,60      |  |  |  |

Table 4: relationship size, CA, total assets, indebtedness, variation

**Source:** developed by the author.

This table shows that the smallest companies achieve an average sales of 167 dirhams and their total assets represent 190 million on average. These are low-indebted companies (average debt ratio is 5%) and whose price variation is positive. On the other hand, large companies whose size is between 19.6 and 21.73 achieve an average sales of 877 million dirhams and have total assets of 1220 million dirhams on average. Their average debt ratio is also very low (5.37%) and the price change is positive.

Finally, the largest companies are characterized by an average turnover of 3724 million dirhams and total asset of 8273 million dirhams. Their average debt ratio is high at 47.46% and the price variation is also positive. The largest companies in our sample are the most indebted companies.

| Size Moy(g  | grouped | by lockers)   | Average | Ν  | Standard deviation |
|-------------|---------|---------------|---------|----|--------------------|
|             | Pair 1  | Acc_totac N-2 | 0,0713  | 12 | 0,08572            |
| <19,60      | Pall 1  | Acc_totac N-1 | 0,1378  | 12 | 0,56449            |
| <19,00      | Pair 2  | Acc_totac N-1 | 0,1378  | 12 | 0,56449            |
|             | Pall Z  | Acc_totac N   | 0,1680  | 12 | 0,19792            |
|             | Pair 1  | Acc_totac N-2 | 0,0471  | 25 | 0,09755            |
| 19,60-21,72 |         | Acc_totac N-1 | 0,0369  | 25 | 0,09610            |
| 19,00-21,72 | Pair 2  | Acc_totac N-1 | 0,0369  | 25 | 0,09610            |
|             |         | Acc_totac N   | -0,0157 | 25 | 0,13439            |
|             | Pair 1  | Acc_totac N-2 | -0,0045 | 15 | 0,10494            |
| 21,73+      | Pair I  | Acc_totac N-1 | 0,0192  | 15 | 0,18140            |
| 21,/3+      | Dair 2  | Acc_totac N-1 | 0,0192  | 15 | 0,18140            |
|             | Pair 2  | Acc_totac N   | 0,1065  | 15 | 0,21285            |

# Table 5: the size-accrual relationship expressed in function of the total active period

Source: developed by the author.

The analysis of the calculated accruals for the three sub-samples shows that the most indebted companies have high total accruals that follow a rising trend (10.65% of total assets). In fact, the interest paid by creditors to their length of time and thus to their profitability encourages the management of earnings. Our first hypothesis is thus confirmed. On the other hand, large, low-income companies record negative accruals; showing a downward trend. This situation supposes the existence of a downward management of earnings which aims at the minimization of the fiscal costs. This leads to the confirmation of our second hypothesis.

For companies in the first sub-sample, although they have little debt, their accruals represent on average of 16.80% of all total assets in N. It is necessary to take into account other characteristics to justify this result (shareholding structure control mechanism). The analysis does not allow the confirmation of our third hypothesis.

The comparison tests of the average accruals expressed in function of the total active assets of over the period of 2014-2016 are presented below. These tests are analyzed for the three sub-samples.

|             |         |               | means companion.j |         |                    |
|-------------|---------|---------------|-------------------|---------|--------------------|
| Size Moy(   | grouped | by lockers)   | Average           | N       | Standard deviation |
|             | Pair 1  | Acc_totac N-2 | -0,06651          | 0,55710 | -0,414             |
| <19,60      | Pall 1  | Acc_totac N-1 | -0,03019          | 0,20344 | -0,514             |
| <19,00      | Pair 2  | Acc_totac N-1 | 0,01012           | 0,13037 | ,388               |
|             | Pall Z  | Acc_totac N   | 0,05260           | 0,22349 | 1,177              |
|             | Pair 1  | Acc_totac N-2 | -0,02375          | 0,24515 | -0,375             |
| 19,60-21,72 |         | Acc_totac N-1 | -0,08729          | 0,23580 | -1,434             |
| 19,00-21,72 | Pair 2  | Acc_totac N-1 | -0,06651          | 0,55710 | -0,414             |
|             | Pair Z  | Acc_totac N   | -0,03019          | 0,20344 | -0,514             |
|             | Pair 1  | Acc_totac N-2 | 0,01012           | 0,13037 | ,388               |
| 21,73+      | Pair I  | Acc_totac N-1 | 0,05260           | 0,22349 | 1,177              |
| 21,/3+      | Pair 2  | Acc_totac N-1 | -0,02375          | 0,24515 | -0,375             |
|             | Pair Z  | Acc_totac N   | -0,08729          | 0,23580 | -1,434             |

# Table 6: test matched sample test (means comparison)

**Source:** developed by the author.

The average comparison test makes it possible to detect any abnormal increase in accruals during the period from 2014 to 2016.

For the period N-2 / N, at the level of the smaller companies (no hypothesis is verified by these companies), the average comparison test reveals an increase of the total accruals. This test shows a management of the earnings that is on the rise, the average of the means being negative. The increase of the total accruals is greater between N-2 and N-1.

At the level of large companies (it is the companies that verify our second hypothesis); the average comparison test reveals a decrease of the total accruals.

This test shows a management of earnings with a downward trend, the average of the means being down. However, this earnings management is not significant according to the student test at the threshold of 5%. The decrease in total accruals is greater between N-1 and N.

On the other hand, the average comparison test shows a strong increase in total accruals for the N-2 / N period in the third sub-sample (these are companies with a high debt ratio and which verify our first hypothesis). The increase of accruals is greater between N-1 and N.

### **Conclusion:**

The results of this research shed light on financial policy, size and market performance and the earnings results management. The analysis of the results confirms the existence of the practices of earnings management in Moroccan listed companies and its correlation with the size of the company. However, the association between market performance and discretionary accruals is not confirmed. The analysis also confirms the debt hypothesis. The indebtedness level is likely to incite the earnings management of the accounting results. On the other hand, the decrease of the political costs is the concern of the largest companies sample.

However, this research has limitations. Indeed, the earnings management can be explained by studying other characteristics of the company (the sector of activity, the distribution of dividends, the control by the auditors and the ownership structure).

The relevance of the accounting and financial information provided by the managers is improved through the governance mechanisms, by the controls of the shareholders, the administrators and the auditors. However, these governance mechanisms remain insufficient to limit the practices of the earnings management. An accounting framework that minimizes the possibility of making accounting «manipulations» is necessary. For this, it appears that the IFRS is more efficient than the national accounting framework provided that there is more standardization recommendations and more control over its implementation by the regulatory authorities (the Moroccan Capital Markets Authority). In Morocco, the transition to IFRS standards by the majority of listed companies will have an impact on the management of results.

An empirical study is needed to highlight the methods used to manage earnings used by Moroccan listed companies and to analyze the discretionary accruals calculated in both IFRS and Moroccan standards (through the components). Such a study will identify the specificities of the Moroccan context and determine if the management of the financial results is higher in Moroccan standards than in IFRS. It is therefore possible to deepen this study to the analysis of the components of accruals calculated to determine the accounting choices made in listed companies in terms of results management. The study can also be carried out on unlisted companies in order to eliminate the impact of the financial market and to take into account other factors more present at the level of the small and medium-sized companies (notably the taxation and the absence of the mechanisms control)

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