



## Impact of Some Governance Mechanisms on Earnings Management: An Empirical Validation Within the Tunisian Market

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### Abstract

*The aim of this paper is to examine the impact of some governance mechanisms on earnings management published by 20 anonymous listed Tunisian firms during the 2000-2009 period, totalling a number of 200 observations. To this end, earnings management has been operationalized as a function of board directors' size, presence of external directors within the board, the separation between the manager and president of the board roles, the majority shareholder's capital percentage, managers' shareholdings, presence of financial institutions and appointment of the CEO by the state. We found out that presence of external directors within the board, board size and presence of a CEO seem to impact earnings management whereas the other board characteristics are found to be neutral.*

**Keywords:** Board of directors, earning management, accruals, corporate governance.

### Introduction

Corporate governance has established a number of control mechanisms whose aim is to protect shareholders' interests. This kind of protection is deemed as one of the necessary conditions for the good functioning of the financial market. These mechanisms are numerous, yet the board remains the most appealing. Moreover, the board of directors is considered as a control mechanism responsible for ensuring a good governance structure (Fama and Jensen (1983). Several studies pointed to negative relationships binding the board of directors' characteristics, i.e. size and structure, and firms' earnings management. In this paper, we extrapolate these concerns on the Tunisian market.

Indeed, our study is anchored within the main stream research on corporate governance. The aim is to examine whether some governance mechanisms influence earnings management. Our research problem, then, is; is earnings management encouraged by some governance practices?

Then, this paper is structured as follows. The first section reviews the literature on the impact of governance mechanisms on earnings management. The second section describes the methodology, and a third one presents the results and their interpretation.

## Review of the Literature

Governance theory is based on conflicts of interests between managers and shareholders. It was Jensen and Meckling (1976) who raised the issue of the impact of conflicts of interests between owners and managers on firms' performance. Despite the recent theoretical treatments of this issue and the solutions proposed by agency theory proponents, Cohen (2002) notes the relative weakness of some management tools to resolve such a problem.

From a contractual perspective, a governance system is explained by its ability to reduce losses (Charreaux, 2004). Moreover, efficiency of a governance system depends on its ability to resolve conflicts between either shareholders and managers or between creditors and shareholders.

Bushman, Engel, Milliron and Smith (2000) confirmed this idea and indicated how governance structures vary according to the firm's accounting and financial information quality. They essentially showed how bad earnings are synonymous of a small-sized board of directors. Likewise, Price R, Romon F.J and Rountree B (2011) indicated that the more the board size increases, the more the firm performance decreases.

However, Belkhir (2004) and Guest P.M (2008) proved the presence of a positive relationship between bank performance and board size, i.e. when the number of directors increases, bank performance increases as well. Yet, Cheng S (2008) points to a negative relationship between board size and firms performance. Linck J.S et al (2008) show that board size is positively linked to firm size and is negatively linked to growth opportunities.

According to He, Labelle, Piot and Thornton (2005), presence of external directors reinforces the ability of the board to efficiently control managers in the context of a modern capitalism where ownership is cut off from the decision-making process.

In the same line of thinking, Conyon and Read (2006) found out that presence of external directors is positive for the firm and contributes to protecting shareholders' interests. Similarly, Beasley and Salterio (2000) suggest the presence of an efficient method that limits the manager's attempts to bypass external directors' control. This technique consists in separating the functions of the manager and the president of the board. On this issue, Park (2000) illustrates a positive relationship between managers' dual functions and their conflicts with auditors. In other words, there is a positive relationship between earnings management and managers and presidents' separated functions.

As for Berry, Fields and Wilkins (2006), they found out that the dual management structure of a firm is likely to limit its independence and hence its performance. Accordingly, Koh (2003) claims that there is a negative relationship between presence of institutional investors and strategic earnings management, i.e. if there are more institutional investors, there will be less earnings management and the opposite holds true.

As for Shabou and Boulila (2002), they found out that presence of institutional investors within Tunisian firms has a significant impact on the choice of accounting methods. Ajinkya, Bhojraj and Sengupta (2003), studying the relationship between external directors and institutional investors on the one hand and earnings management on the other, found out that presence of institutional investors contribute to the creation of an environment which improves credibility of earnings management predictions. In the same vein, Chung, Firth and Kim (2005) found out that presence of institutional investors has a negative impact on earnings management for high cash flow firms.

In the Canadian context, Park and Shin (2004), studying the impact of the board structure on earnings management, found out that presence of institutional investors contributes to

reducing discretionary accruals. In a recent study of Chinese firms, Chen et al (2007), found out that if there is an institutional investor, fraudulent practices become less important.

Walters and Kroll (2006) have showed that presence of institutional investors within a firm is likely to moderate the relationship between research and development expenses and firm's performance.

According to Marnet (2006), earnings management is as much important as it is controversial. It is nonetheless at the heart of financial scandals. Earnings management is a practice that does not break generally accepted accounting rules or violate laws, yet it is often debated.

Other researchers like Weisbach (1988) and Byrd and Hickman (1992) illustrate that presence of external directors tends to protect shareholders in case of conflicts. Likewise, Agrauwal and Knoeber (1996) and Klein (1998) found out a negative or no relationship between external directors and protecting shareholders.

Moreover, Fama and Jensen (1983) show that external directors should have incentives to control earnings management. Indeed, Evans (2004) showed that the relationship between board of directors' size and quality of financial communication is significantly positive at a 5% confidence level. However, Beasley et al (2000) found no significant relationship. Coulton, James and Taylor (2001) point to a negative relationship between board size and opportunistic management behaviour. Moreover, the impact of board size on the manager's opportunistic behaviour is not clear yet, but most of the arguments insist that small-sized boards are more efficient and consequently lead to improving information quality.

Park and Shin (2004) examined the effect of board structure on earnings management practices in Canada and concluded that the presence of institutional investors influences the reduction in accruals. Their results show that adding external directors within the board cannot by itself improve governance mechanisms particularly if ownership is strongly concentrated and if directors' labour market is not enough developed.

Klein (2002), distinguished between, on the one hand, the influence of the board and its characteristics on earnings management, and on the other hand, the influence of the auditing committee on the same variable. The author explained the need for conducting two separate regression analyses to detect the role of the board and that of the auditing committee by arguing that firms with boards independent from management often have an efficient auditing committee, suggesting high colinearity of governance variables. It is this multi-colinearity of independent variables that the study of Bedard, Courteau and Chtourou (2001) seems inadequate. However, the works of Coulton, James and Taylor (2001) and Hanifa and Cooke (2000) failed to confirm the presence of a negative relationship between separation of management roles and opportunistic earnings management.

Presence of financial institutions allows for reducing accruals and benefiting the board with promising experience. Peasnell et al (2000) indicate that externals inhibited earnings management for the US market only after the Cadbury Committee Report.

Similarly, Chtourou et al (2001) studied American firms and noted that the board's ability to slow down earnings management reports to externals' characteristics. Moreover, Peasnell et al (2000) found out a negative relationship between earnings management and externals presence within the board after the Cadbury Committee Report.

However, Park and Shin (2004) show that presence of externals has no impact on earnings management, in contrast to presence of institutional investors who tend to reduce manipulation of accounting results.

Klein (2002) finds out a negative relationship between board independence and abnormal accruals. Hence, the more the board is independent, the more the control the finances and accountancy of the firm is efficient.

Xie et al (2003) point to a relationship between presence of directors and discretionary accruals. The authors further note that if board members have a level of financial sophistication, there is less earnings management. Chung et al (2005) further show that earnings management diminishes when there are institutional investors.

As for Liu and Lu (2007), they illustrate a negative relationship between governance mechanisms and earnings management. Accordingly, listed firms are highly encouraged to manage earnings so as to ensure certain levels of profitability for their own funds.

Dumontier (2003) indicates that the use of earnings management allows managers to communicate to investors their own expectations on the firm's future. Frankel et al (2002) note a negative relationship between accounting experience and abnormal results as well as the moderate effect of this experience in firms which manipulate their earnings to the downward. Likewise, Myers et al (2003) show that accounting experience reduces abnormal results, whether positive or negative.

## Methodology

### Sample and Data

The study of the relationship between some governance mechanisms and earnings management is conducted on 20 private and public anonymous Tunisian firms during the 2000-2009 period, on a total of 200 observations. The data is collected from the published official balance sheets and from the board of the Tunisian financial market.

Definition: Nature and Measurement of variables

In Table 1.1 below, we present the different variables of our model and their measurements.

**Table (1.1): the model's independent variables**

| <b>Variables</b>   | <b>Measurement</b>   |
|--|--|
| <b>TCA: Board of directors' size.</b>  | <b>Number of directors forming the board</b>                                     |
| <b>Dual: the functions of the general manager and president of the board by the same person.</b> | <b>1 when the same person, 0 otherwise.</b>                                      |
| <b>AM: Percentage of the capital held by the majority shareholder.</b>                           | <b>1 if the majority shareholder holds at least 50% of capital, 0 otherwise.</b> |
| <b>APD : shares held by managers</b>   | <b>Percentage of shares held by managers.</b>                                    |
| <b>IF: presence of financial institution within the board.</b>                                   | <b>1 if there is at least one institution, 0 otherwise.</b>                      |

|   |   |
|---|---|
| <b>AE: presence of external directors within the board.</b> | <b>The proportion of externals among the number of all directors.</b> |
| <b>PDG: presence of a CEO.</b>                              | <b>1 if there is a CEO appointed by the state, 0 otherwise.</b>       |

### The Dependent Variable

**GR:** Earnings management is measured by discretionary accruals. Discretionary accruals are the difference between total accruals and non-discretionary (normal) accruals. Earnings management is estimated by Kothari, Leone and Wasley's model (2005).

### The Model

In this study, we will examine the relationship between board structure and earnings management within the Tunisian context relying on the works of Park and Shin (2004). To this end, we will use the following model:

$$GR_{i,t} = \alpha_0 + \alpha_1 TCA_{it} + \alpha_2 CUMUL_{it} + \alpha_3 AM_{it} + \alpha_4 APD_{it} + \alpha_5 IF_{it} + \alpha_6 AE_{it} + \alpha_7 PDG_{it} + \varepsilon_{it}$$

### The Research Hypotheses

By reference to the literature review, our research hypotheses are reformulated as follows:

- H1: Earnings management is positively linked to board size.
- H2: Earnings management is positively linked to the roles of the general manager and president of the board.
- H3: Earnings management is negatively linked to ownership concentration.
- H4: Earnings management is negatively linked to managers' shareholdings.
- H5: Earnings management is negatively linked to the percentage of shares held by financial institutions.
- H6: earnings management is negatively linked to the presence of external directors within the board.
- H7: Earnings management is negatively linked to the presence of a CEO appointed by the state.

### The Results

The estimation of our model is processed using the Stata 9.2 statistics software. Normally, the estimation proceeds by specifying a fixed and a random-effects model. In the context of our study, we opted for not estimating the fixed-effects model as this model tends to eliminate some variables that we think important for our study (dichotomous variables which remained constant during the period under study). Consequently, we opted for the random-effects model. In the following table, we present the empirical results issued from estimating the random-effects model:

**Table (2.4): The model's estimation results**

|          | Expected sign | Coefficient | t-Student | P>z   |
|----------|---------------|-------------|-----------|-------|
| Constant |               | -1.608501   | -5.75     | 0.000 |
| TCA      | +             | 0.08678     | 3.73      | 0.000 |
| CUMUL    | +             | -0.2217025  | -1.44     | 0.149 |
| AM       | -             | -0.0003039  | -0.15     | 0.881 |
| APD      | -             | 0.0036835   | 1.22      | 0.222 |
| IF       | -             | 0.4108683   | 1.86      | 0.063 |
| AE       | -             | -0.4199239  | -6.79     | 0.000 |
| PDG      | -             | -0.5953647  | -3.45     | 0.001 |

### Interpretations of the Results

Estimating the random-effects model, we found out that the model is generally significant (Prob > chi square = 0.0000). Indeed, the  $R^2 = 40.96\%$  indicates a satisfactory explanatory power. Furthermore, we note that there are some variables which are statistically significant like board of directors' size (TCA), externals (AE), financial institutions (IF) and presence of a CEO appointed by the state (PDG). By contrast, the other variables (Cumul, AM and APD) are not significant.

The TCA t-student is significant at a 5% confidence level (as the absolute t value is superior to the critical 1.96). As for the AE variable, it is significant at a 5% level. Likewise, the variable PDG is significant at the 5% level, similarly the IF variable is significant at the 1% level (as the absolute t value is superior to the critical 1.64).

As for the coefficient of these variables, it is positive for the TCA variable which confirms our hypothesis that there is a positive relationship between earnings management and board size (H1 validated). This result allows us to conclude that the more the board size increases, the more the level of earnings management increases. Hence, presence of a large-sized board presents a threat to managers' control. Then, the more the board size increases, the more there are chances to manage earnings by managers. These results join those of Chtourou et al (2001) Xie et al (2003), Bradbury et al (2004) and Price R, Romon F.J and Rountree B (2011).

The coefficient of the variable (AE) is negative, confirming our hypothesis that earnings management is negatively linked to the presence of external directors within the board (H6 validated). This result indicates that this variable has a negative impact on earnings management. Indeed, the presence of externals allows for a more efficient control aiming at reducing discretionary management. According to Park and Shin (2004), in their study of the Canadian context, the variable (AE) is not significant. This is explained by the fact that Canada has a strong ownership concentration which strongly affects independence of externals. This result meets with that of Dechow et al (1995).

The coefficient of the variable PDG is negative, confirming as well our hypothesis that earnings management is negatively related to presence of a CEO appointed by the state (H7 validated). This means that the presence of a CEO poses some difficulties for managers to manage earnings. Presence of a CEO appointed by the state tends to lessen manipulation of accounting results, i.e. limiting managers' ability to manage earnings.

Koh (2003) showed that there is a negative relationship between presence of institutional investors and strategic earnings management, i.e. if there are institutional investors, there will be less earnings management and vice versa.

Moreover, Shabou and Boulila (2002) found out that presence of institutional investors within Tunisian firms has a significant impact on earnings management. Chung, Firth and Kim (2005) found out that presence of institutional investors dissuade managers from modifying results according to their expectations. Park and Shin (2004) concluded that presence of institutional investors allows for reducing earnings management.

As for the variable financial institutions, its sign is positive, disconfirming our hypothesis that earnings management is negatively linked to percentage of shares held by financial institutions (H5 rejected), suggesting that presence of financial institutions has a positive impact on strategic earnings management. In contrast to these variables (TCA, AE, PDG and AE) which proved to be significant in the context of our study and sample, the other variables are not significant.

The variable general manager and president of the board separate functions should yield a positive relationship with earnings management, yet this was not the case in our study (H2 rejected). This result reveals a negative and an insignificant relationship between this variable and earnings management, i.e. this variable has no impact on earnings management. On this issue, Beasley and Salterio (2000) concluded that if the general manager and president of the board functions are in the hands of one person, it may encourage the manager to manage the firm's accounting results. Similarly, Park (2000) showed that there is a positive relationship between earnings management and functions of the general manager and president of the board, i.e. if the same person occupies the two positions, this may positively affect earnings management.

Moreover, we hypothesised that earnings management is negatively linked to ownership concentration degree. In other words, if more than 50% of the capital is owned by one person, this may weaken earnings management practice. In the context of our study, the variable majority shareholder (AM) has no impact on manipulating accounting results (H3 is rejected). Finally, we hypothesised that earnings management is negatively linked to managers' shareholdings, yet this was rejected by our study (H4 is rejected), i.e. managers' stake in the capital is not significant in terms of manipulating accounting results.

We can explain the inconsistency of these results with our research hypotheses by the fact that the Tunisian context is different from other contexts in which previous studies were conducted. Indeed, previous research is mainly concerned with the Anglo-Saxon regimes which are characterized by a high degree of capital dispersion and highly developed financial markets, totally in contrast to the Tunisian context which is characterized by family firms and capital concentration.

Some variables which might influence earnings management in Anglo-Saxon contexts are unable to act on this practice in the Tunisian context as the high degree of ownership concentration may have a strong influence on directors, and then may limit their independence.

## **Conclusion**

The board of directors is an internal control mechanism which essentially should serve shareholders' interests, protect them against managers' abuse and insure reliability of information delivered to shareholders. From this viewpoint, careful control practised by the board may prevent managers from opportunistically managing earnings, hence the interest expressed by several studies to examine the impact of board characteristics on earnings management.

In this paper, we reviewed previous research examining the relationship between earnings management and governance mechanisms. Moreover, we tested a number of hypotheses linking some governance mechanisms with earnings management. The obtained results are consistent with previous research. However, there are other variables which proved very significant in other studies, yet proved insignificant in ours such as capital concentration in the hands of one person, managers' stake in the firm's capital and the functions of the general manager and president of the board in the hands of one person. This inconsistency with other studies may be explained by the fact that most studies have been conducted in Anglo-Saxon contexts and mainly in the US and the UK.

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