

## Impact of executives' profile on the extent of voluntary financial disclosure: The case of Tunisian companies

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**Abstract:** The main purpose of this paper is to examine how important the profile of manager is to voluntary financial disclosure in the Tunisian emerging market. We mobilize the upper echelon theory which suggests that human factors may affect firm strategy and performance. We investigate the characteristics of voluntary financial disclosure in Tunisia which has incurred important changes during recent years. Tunisia is an African developing country of the MENA (Middle East and North Africa) that tends to improve the quality of governance and more specifically of the voluntary disclosure to attract foreign investors. However, the voluntary disclosure of information is not yet strictly regulated and many firms are still unwilling to disclosure voluntary information in their annual reports. The needs of the external users of annuals reports are constantly growing as well. In addition, after the globalization of financial market, Tunisian legislator encourage listed companies to be more transparent to satisfy the need of different users and to attract international investors. This exploratory study proposes the existence of a relationship between manager profile and the extent of voluntary financial disclosure. We expect that the profile of managers matters for firms' disclosure decision. After applying a linear regression using information from the annual reports of 32 Tunisian companies during the years 2008-2009, results show that the age of manager has a particularly significant effect on the extent of voluntary financial disclosure.

**Keywords:** Voluntary financial disclosure, manager profile, annual reports, Tunisian context

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## **1. Introduction**

The recent financial crisis changed the whole world and became a catalyst for the revision of corporate governance in countries throughout the world. To restore a reliable climate among various players of financial markets, measures were implemented with the aim of improving the transparency of disclosed information. In some countries, standardizing organizations tried to consider the information needs of the various users. This is particularly the case of emerging economies of which Tunisia is an example (Mattoussi, 2004; Haddad *et al.*, 2009).

In fact, because of the increasing demand for information, the mandatory disclosure according to the legal obligations of publication remains insufficient. Indeed, listed companies should not limit themselves only to the legal and statutory framework because they should inform the various interested actors of significant events that arise in the company. Moreover, the discretionary power of managers allows them to supply useful additional information for decision-makers. Voluntary disclosure is of major importance because it is a way to protect investors and also results in an optimal functioning of the financial market (Leuz & Verrecchia, 2000; Healy & Palepu, 2001; Arya & Mittendorf 2007; Dye *et al.*, 2008).

The concept of voluntary disclosure has been the object of several studies and among which we can refer to the research related to determinants and consequences of voluntary disclosure and the analyses of the strategy of disclosure (Meek *et al.*, 1995; Cheng & Courtenay, 2006; Botosan, 1997; Brown & Hillegies, 2007). A review of the literature on the determinants of voluntary disclosure revealed a variety of factors. First, factors related to the characteristics of the company (Meek *et al.*, 1995; Cooke, 1989; Raffournier, 1995), such as the structure of property, the financial structure, the economic performance, the quotation, the business sector of the company. Second, other factors are related to governance mechanisms (Cheng & Courtenay, 2006; Eng & Mak, 2003; Gul & Leung, 2004) such as the separation of the CEO and chairman functions, the size and the composition of the board of directors, and the quality of the audit. Finally, the profile of the manager as a determining factor of voluntary disclosure has not yet been studied. Therefore, our research aims at answering the following question: Does manager's profile have an influence on the level of financial voluntary disclosure in the annual reports of Tunisian companies.

This study aims at highlighting: (1) The decisions of disclosure which are taken on the basis of a managerial choice while demonstrating the centrality of the human factor to explain this disclosure; (2) The fact that in a developing country such Tunisia, companies are not very motivated to adopt this practice compared to other developed countries. Ben Othman and Zeghal (2010) studied the level of disclosure

of 216 companies belonging to MENA zone and found that countries marked by the Anglo-Saxon culture are more transparent than countries marked by French culture (Tunisia); (3) In this paper, we are interested by the Tunisian environment which has incurred important changes during recent years. Tunisia is considered as an African developing country of the MENA (Middle East and North Africa) and was considered in 2009 as the most competitive Economy in Africa and the 40th in the world by the World Economic Forum (Wikipedia). In addition, Tunisia has inherited the cultural value of the euro-continental model characterized by the conservatism and discretion (Kamla, 2007) and was the first Mediterranean country to sign in July 1995 an association agreement with the European Union. Therefore, all these factors contribute to the improvement of governance practices and more specifically of voluntary disclosure to attract international investors to Tunisia.

The theoretical model for which we have opted in this work is the Upper Echelon Theory (Hambrick & Mason, 1984). This theory granted a considerable importance for the profile of the manager as a central actor within the company. The main objective of this research is thus to understand and to examine the impact of the manager profile of voluntary disclosure decision. We measured the score of financial voluntary disclosure through the analysis of 44 items relative to annual reports of 32 Tunisian companies during two years (2008-2009).

The paper is organized as follows: the first section is dedicated to the presentation of the theoretical framework and the formulation of our hypothesis. Methodological choices are presented in the second section. In the third section we describe variables. The last section focuses on the presentation and the discussion of the obtained empirical results.

## **2. Literature review**

### **2.1 Background of the study**

Results of previous empirical studies about the determinants of voluntary disclosure have shown a number of factors that could explain the variation of the extent in voluntary disclosure: factors related to the characteristics of the company such as the ownership structure, the financial structure, the economic performance, the stock quotation, the business sectors of the company and factors related to the mechanisms of governance, such as the separation of board's chairman functions and the CEO, the size and the composition of the board of directors and the quality of the audit. Little attention has been devoted to the profile of the manager who may also be considered as an explanatory factor in this respect. Table 1 presents previous studies concerning the relationship between governance mechanisms and voluntary disclosure decisions.

**Table 1. Summary of previous studies on the relationship between governance mechanisms and the decision of voluntary publication of information**

Studies	Hypothesis	Results
Ho and Wang (2001)	The effect of the percentage of non-executive directors, the presence of an audit committee and the presence of the CEO in the audit committee CA on the extent of voluntary disclosures.	A positive and insignificant relationship of the percentage of non-executive directors. A positive and significant relationship to the presence of audit committees. An insignificant relationship to the presence of the CEO in audit committee.
Bradi (2003)	The board size, its composition, combining the functions of Chairman of the Board and Chief Executive Officer and the concentration of ownership on the one hand and the level of voluntary disclosure on the other hand.	Only the concentration of ownership affects the level of information provided in annual reports.
Eng and Mac (2003)	The percentage of outside directors and the level of voluntary disclosure.	A negative and significant relationship was found between the percentage of outside directors and the level of voluntary disclosure.
Cheng and Courtenay (2005)	The presence of independent directors and the level of voluntary disclosure.	A positive relationship between the independent members of the board of directors and the level of voluntary disclosure.
Mangena and Pike (2005)	The relationship between the characteristics of the audit committee (size, ownership, competence, know-how of its members) and the extent of intermediate publications.	A positive relationship was found for the expertise of board members. No association between the size of the audit committee and the extent of intermediate publications. A negative relationship between the participation of members of the audit committee and the extent of publications.
Raffournier (2005)	The firm size, the audit firm and the level of voluntary disclosure in the annual report.	These variables determine the level of voluntary disclosure in the annual reports of companies.
Agca and Önder (2007)	Performance, ownership structure, the type of the auditor, leverage, multi-nationality on the one hand and the level of voluntary disclosure on the other.	The type of the auditor, the firm size and performance have a significant effect on the level of disclosure
Elleuch-Hamza and Ben Ahmed-Hadrich (2009)	The firm size, the status of trading, the industry, internationalization, business structure, competition and voluntary financial disclosure on the Internet.	The status of trading and industry are the main factors that lead to adopt this disclosure policy. In addition, companies that disclose full information about their sites are open and have a leading position in the corporate market.

In fact, voluntary disclosure constitutes a means to reduce political visibility (Laajili & Zeghal, 2005). According to agency theory, the disclosure of information allows for the decrease in costs of supervision of managers by investors and creditors. Furthermore, the positive effect of this reduction on profit will constitute an incitement for managers to publish more information (Depoers, 2000). Signal theory is characterized by managerial latitude and discretionary behavior of managers to direct their strategies. Thus managers voluntarily publish information to indicate to the financial market the quality of the company which they manage and to avoid the risk of a false interpretation by external users (Verrechia, 1990).

Few studies have provided evidence that the profile of managers plays an important role within the company. The existing literature on financial disclosure presented several factors mostly related to firm characteristic and corporate governance. In addition, prior research has mostly focused on the importance of CEOs and CFOs in the performance of the company (Hambrick & Mason, 1984; Hitt & Tyler, 1991; Wiersema & Bantel, 1992; Datta & Guthrie, 1998) and disclosure decisions (Hoffman, 2001; Delmas and Toffel, 2008 ; Bamber *et al.*, 2010; Ge *et al.*, 2011). For Waldman *et al.* (2006), CEO is responsible of formulating corporate strategy and tends to promote their image through social responsibility. Manner (2010) found that CEO personal characteristics contribute to strong social performance. According to Cheng *et al.* (2014), top management teams tend to shape the financial reporting policy of the firm. The study of Bamber *et al.* (2010) examined the role of CEOs' and CFOs' personal styles in voluntary disclosure decisions and showed a relationship between demographic characteristic of managers with voluntary disclosure. Bamber *et al.* (2010) found that managers promoted from finance, accounting, and legal career tracks, managers born before World War II, and those with military experience adopt more conservative characteristics in their disclosure style.

Besides, prior studies have also emphasized the possibility of subordinate managers to explain corporate disclosure decisions. Subordinate managers can contribute to improve firm performance, because they are usually younger and have ambition to become CEOs in the future (Jensen, 1986; Stein, 1989; Kale *et al.* 2009). Thus, few studies were concentrated in human factor to explain voluntary financial disclosure. Therefore, our new focus will fill the gap by integrating the profile of manager to explain the level of voluntary financial disclosure.

## **2.2 The upper echelon theory as a basis for the explanation of organizational practices of the company**

Hambrick and Mason (1984) are the pioneers of the Upper Echelon Theory. They have supported the heterogeneity of managers to explain the diversity of practices

within organizations. Indeed, this theory considers the strategic choices of a company as a reflection of values, beliefs and perceptions of managers of every organization. Hence, personality features (risk aversion for example) and demographic factors (age, qualifications, seniority) are put in relation with strategic decisions at the company such as innovation (Bantel & Jackson, 1989), diversification (Michel & Hambrick, 1992), internationalization (Roth, 1995) and the global performance of the company (Finkelstein *et al.*, 2009; Miller, 1991). According to Bertrand and Schoar (2003), the age and the level of education of managers explain the heterogeneity of policies adopted by the company (financial and organizational investment policies and the performance of the company). Moreover, a number of prior studies have highlighted that rotation of managers represents a destabilizing factor for companies and especially at the performance level (Cannella, 1995). New managers, with their own values, their past experiences and their education, are at the origin of the changes of strategic orientations and the disturbance in the functioning of the working team (Wiersema & Bantel, 1993).

Moreover, Ge *et al.* (2008) noted that characteristics of financial directors such as gender, age and qualifications, are determinants of financial reporting. In fact, older managers tend to adopt conservative strategies in terms of financial reporting, that is the latter choose to incorporate bad news into the reported results rather than good news. Additionally, financial directors having a BBA degree (Bachelor of Business Administration) adopt aggressive strategies in terms of financial reporting. In this perspective, the study will shed the light on the impact of manager profile on the financial voluntary disclosure.

### **2.3 The upper echelon theory as a basis for the explanation of the practice of voluntary disclosure**

According to upper echelon theory, individualized construal of strategic situations arises because of executives' experiences, values, personalities and other human factors. Thus, according to the theory, organizations become reflections of their top executives (Hambrick & Mason, 1984). Upper echelon theory originating in the strategic management literature suggests that differences among individuals can affect corporate outcomes, particularly voluntary disclosure. William (2008) have found that strategic decisions are taken on the basis of a managerial choice that makes the voluntary disclosure decision not able to be only explained by factors related to the economic, financial and accounting literature. Recently, Bamber *et al.* (2010) have shown a significant association between demographic characteristics of managers and their styles of voluntary disclosure.

Managers with military experience prefer an impartial, fast and precise disclosure of unfavorable information. Those, holding an MBA degree, tend to reveal more

precise information and are able to provide information about future results of the firm. Other factors related to the personality of managers, such as overconfidence (Hribar & Yang, 2007), authority (Adam *et al.*, 2005) and charisma have been the object of several of studies. According to Hribar and Yang (2007), there is a positive relation between overconfidence and voluntary disclosure of anticipatory information, given that these managers believe that their presence in the company and their managerial capacity allows for higher company earnings, and consequently this overconfidence will result in biased optimistic forecasts. The upper echelon theory is the main theory which states that the manager profile could have extreme repercussions on a company's organizational behavior, given that the manager is involved in decision-making, in the communication with stakeholders

### **3. Research methodology**

#### **3.1 Research hypothesis**

Several studies have demonstrated that the heterogeneity of practices adopted by companies like investment, financial and organizational policies, as well as the performance of the company are attributed to managers' profiles. This means that manager is the major actor for decision-making in firms. Also, prior research have confirmed close link between the manager profile and the quality of voluntary disclosure (Bamber *et al.*, 2009; Ge *et al.*, 2008). Therefore, it seems relevant to study the influence of the manager profile on the voluntary financial disclosure. In this study, we propose the following hypothesis:

*H: The profile of the manager has an impact on the level of voluntary financial disclosure*

#### **3.2 Content analysis of voluntary financial disclosure**

Several methods can be used by companies to communicate voluntary information such as annual reports, Internet, Medias, conferences. Voluntary information disclosure in annual reports has been the subject for several empirical studies (Chau & Gray, 2002; Cooke, 1989; Eng & Mak, 2003; Raffournier, 1995; Wallace & Naser, 1995). In this study, we examined annual reports of Tunisian companies. We have chosen this source of analysis for the following reasons: (1) Annual reports constitute the dominant source for broadcasting voluntary information for the various stakeholders and especially for investors and regulators (Zeghal *et al.*, 2007); (2) Most relevant information is included in financial statements which are provided in annual reports (Chang *et al.*, 1983). The main source of annual reports of listed companies on the stock exchange is the Council of the Financial Market

whereas unlisted companies' annual reports were directly obtained from headquarters of the concerned companies.

Regarding managers' profile, we conduct a survey through a questionnaire which includes 15 questions about the profile of managers (gender, age, city, experience, background) which was directly circulated to the sample of managers. It's important to report that we have checked during two years, whether the manager kept or changed his job. The response rate of the surveyed companies' managers was 71%. The data collected from the questionnaire is coded and weighted per question. We then matched the list of company-manager-year observations with the dependent variable "extent of voluntary financial disclosure" which is divided into three subset information (past financial information, forecasts information, analysis and discussion about company direction). (It's important to report that we take into account if the manager kept or changed his job during the period of 2008-2009) We kept only companies in which managers changed their job between 2008 and 2009. The questionnaire includes general questions to understand the behaviour of managers as well as specific questions which represent the variables of interest that explain the extent of voluntary financial disclosure (dependent variables). We then match the response with the score "the extent of voluntary financial disclosure" which is divided into three subset information (past financial information, forecasts information, analysis and discussion about company direction).

We base our analysis on a sample of 64 company observations. Our sample contains 44 observations corresponding to listed companies and 20 observations to unlisted companies over the period 2008-2009. More precisely, we consulted annual reports of listed companies on the Tunisian stock exchange available in the Financial Market board (Conseil du Marché Financier) and the annual reports of unlisted companies belonging to different business sectors (see Table1 for further details) published on their web sites and the TUSTEX (the first web site restricted to stock market information in Tunisia).

**Table 2. Distribution of observations by industry**

Sector	Number of companies
Manufacturing	19
Commerce	4
Transport	1
Real Estate	3
Communication	1
Food processing	2
Services	1
Energy	1
<b>Total</b>	<b>32</b>



The choice of the analysis period is motivated by a set of reforms occurred in Tunisia to enforce and improve governance practices such as the promulgation of the law No. 2005-96 relating to financial security, the publication in 2008 of a Guide About Good Governance Practices of Companies (GGGPC) by the Arab Institute of Business Leaders (AIBL), the Guide of the Annual Report of the Tunisian Companies in 2009 (GARTC); as well as the establishment of the Tunisian Centre of Company Governance (TCCG) in 2009 (Chakroun & Mattoussi, 2012).

## **4. Variables description**

### **4.1 Voluntary Financial Disclosure (Dependent variable)**

Most of previous studies measured voluntary disclosure by the disclosure index. It was considered as the most suitable and effective method (Botosan, 1997; Meek *et al.*, 1995; Bozec & Zeghal, 2001). Authors built their disclosure index based on a list of items adapted to their context of study. For our index, we conducted a detailed literature review about the construction of disclosure index (Botosan, 1997; Meek *et al.*, 1995; Bozec & Zéghal, 2001). With reference to the index of Botosan (1997) which includes different items about financial structure, financial market, forecasting and social information and to the information provided in the annual report of companies, we base our analysis to construct the index of voluntary financial disclosure adapted to the Tunisian context (Table 3).

However, it's useful to know that the legal obligations for the annual reports in Tunisia are mainly set by the code of Commercial Companies but no strict regulation and no precision about the form and the content of annual reports are mentioned in the code of commercial Companies (Chakroun & Mattoussi, 2012). That's why we consider all the information which accompanied the annual reports as voluntary and not required by the code of Commercial companies.

Referring to Botosan index (1997) adapted to Tunisian context, a list of 44 items was collected in total and divided into three categories. Appendix 2 presents the composition and the number of items per category. Thus, the extent of voluntary financial disclosure is measured by: (1) Past financial information (19 items); (2) Forecasting information (11 items); (3) Information concerning the analysis and discussion of company direction (14 items). The total extent of voluntary financial disclosure is measured as the sum of the disclosure of these three categories of information.

**Table 3. Construction of the index of voluntary financial disclosure**

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**A. Financial Information**

1. Return on assets or sufficient information to compute return on assets (Net income, tax rate, interest expense and total assets)
2. Net profit margin or sufficient information to compute net profit margin (Net income, tax rate, interest expense and sales)
3. Asset turnover and sufficient information to compute asset turnover (Sales and total assets)
4. Return on equity or sufficient information to compute return on equity (Net income, stockholders' equity)
5. Solvability ratio
6. Funding ratio
7. Profitability ratios (quantitative measures of value creation for shareholders).
8. Liquidity ratios.
9. Financial structure ratio.
10. Other ratios.
11. Detailed breakdown of the evolution of sales (in terms of values, quantities, customers).
12. Detailed breakdown of the local and export sales.
13. Financial Summary over 2 years.
14. Cost of sales or purchase cost of goods sold
15. Impact of currency fluctuations on current results
16. Exchange rates used in accounting (information on foreign currency)
17. Effect of exchange rates on cash and cash equivalents
18. intangible Disclosure
19. Leverage

**B. Forecasting information**

1. Sales forecasts compared with actual sales of the year.
2. Comparison of forecast costs with actual costs this year.
3. Comparison of forecast production levels with the actual level.
4. Presentation forecasts of liquidity (quantitative qualitative).
5. Presentation forecasts of profits (quantitative qualitative).
6. Presentation of forecast sales (quantitative qualitative).
7. Forecast data on costs.
8. Capital expenditures and/ or research and development expenditure forecast
9. General debate of the future trend of the industry.
10. Cash flow forecasts
11. capital increase forecast

**C. Management discussion and analysis:**

1. Change in sales.
  2. Change in operating income
  3. Change in costs of goods sold.
  4. Change in turnover.
  5. Change in gross profit.
  6. Change in selling and administrative expenses.
  7. Change in interest expenses and interest income.
  8. Change in net income.
  9. Change in market share.
  10. Trend in the share price and total return to shareholders.
  11. Change in capital expenditures and research and development
  12. Comment on changing course.
  13. Change in the selling price.
  14. Comment on the financial position of the company
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**4.2 Independent variables**

We will present the measures of the independent variables used in our models.

***The age***

The upper echelon theory supports the idea that the age of a manager can affect his values, cognitive style and decisions (Hambrick & Mason, 1984). Palsson (1996) noticed that the age of a manager is positively associated with risk aversion as well as with the management of his portfolio. Also, Bertrand and Schoar (2003) showed that the oldest managers opt for the most conservative strategies. They prefer the retention of liquid assets and particularly refuse capital expenditures and debts.

Agrawal *et al.* (2007) have used the age to explain the decisions of managers and supported the idea that the sophistication of financial decisions varied according to managers' age.

In this study, we introduced quantitative ordinal variable measured as following:

- Between [25, 39]: the manager is young =1
- Between [40,54]: the manager is middle-aged =2
- Between 55 years and over: the manager is old =3

***The Voluntary service***

The variable related to "Voluntary service" has not been tested in the previous accounting literature. It is an indicator of the degree to which the manager is engaged outside the firm. Experience in participating voluntarily in association may have an impact in the behavior of managers inside the company and especially with relation to disclosure of voluntary information. We use a dichotomous variable, which takes "1" if the CEO participates in associations and "0" otherwise.

***The Work experience***

Several previous studies have considered the "Work experience" as a determinant for voluntary disclosure. The Upper Echelon Theory supports the idea that the experience of the manager is a determining variable having an impact on his choices and his decisions. Indeed, choices of the manager depend on his past experience. Previous studies noted that the strategy adopted by a manager is related to his own experience (Smith & White, 1987; Thomas *et al.*, 1991; Jensen & Zajac, 2004).

Various measures were used as a proxy for the "work experience" variable. "Military experience" is considered as a different type of experience which can affect the policy of voluntary disclosure. Managers who have military experience are less tolerant to ambiguity and uncertainty and are thus more demanding regarding voluntary disclosure (Soeters, 1997).

Other studies distinguished between the experience spent in the accounting and financial sector and the experience spent in the other sectors. Indeed managers who worked in the same business sector adopt a more precise policy of disclosure than those who worked in other domains. In this study, we used two variables; the work experience of the manager as CEO within the company and the nature of the last work experience of the CEO in other companies. We used the following measures:

- The work experience as CEO = the number of years occupied by the manager within the company as CEO.
- The last experience spent by the manager is a dichotomous variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector.

***The Educational Level***

In previous literature, "Education" was considered as an explanatory factor of the extent of voluntary disclosure. Indeed, the degree course of the manager gives an idea about his managerial capacities and about areas which he has mastered. Bamber *et al.* (2010) were able to demonstrate that managers holding an MBA tend to voluntarily communicate more precise information and are able to plan out the future financial situation of the company. In our research, this qualitative ordinal variable is measured as follows:

Education =

- "0" if it is a Baccalaureate diploma or < Baccalaureate diploma
- "1" if it is a Bachelor's degree
- "2" if it is a "maîtrise" degree (Maîtrise: An old four-years university curriculum in Tunisia)
- "3" if it is a master's degree or an engineering diploma.
- "4" if it is a doctorate degree.

***The city of origin***

In our study, we estimate the effect of the city of origin by a dichotomous variable which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise.

**4.3 Control variables**

In this study, we retain the characteristics of companies as variables of control.

***Firm Size***

The size is considered to be a determining factor having an influence on the extent of voluntary disclosure. In the present study, we retain the decimal logarithm of sales to measure the size of the firm.

***Industry***

According to Meek *et al.* (1995), the industry has an influence on the level of voluntary disclosure. Cooke (1992) and Lim *et al.* (2007) assert that industrial companies reveal more information than companies of other sectors. In this study, this variable is measured by a dummy variable: the industry is equal to "1" if the company is an industrial firm and "0" otherwise.

***Firm profitability***

Firm profitability can be an explanatory factor for the extent of voluntary disclosure. Foster (1986) asserts that successful enterprises tend to communicate voluntary information to distinguish themselves from other less successful companies and to benefit from advantageous perspectives in terms of capital. In this study, we retain sales efficiency as a measure of firm profitability. In this study, we retain sales efficiency as a measure of firm profitability. Sale efficiency is return on sales calculated using this formula: Net Income (Before Tax and Interest) divided by total sales (Akhtaruddin, 2005; Aljifri, 2008; Meek *et al.*, 1995).

**4.4 Empirical models**

The analysis is essentially based on the multiple regression method. This method aims to determining the effect of independent variables (gender, religion, country, age, voluntary service, education, work experience of the manager) on the extent of voluntary financial disclosure.

We are also going to take into account additional control variables which represent explanatory factors of the level of voluntary disclosure in order to know the specific characteristics of the company, such as the size of the company, its business sector and its performance. It is important to know that to improve our study and to provide convincing results; the selection of voluntary items was

referred to the index of voluntary financial disclosure of Botosan (1997). Moreover, such selection depends on the country context that's why we base our selection in Botosan index adapted to Tunisian context. Besides, for the questionnaire, the collection data procedure, we keep all company-year observation in which the manager moves to another job during this period 2008-2009 and we take into account the presence of managers in at least one other company. We then match the list of company-manager -year observations with the level of voluntary financial disclosure.

To ensure the robustness of our findings, we conduct several tests. First, residual tests are used to test the validity of the regression model. In addition, outlier tests are used and more precisely the Box-Plot, Z-score and the application of multivariate test "Mahalanobis" to improve the significance of our model.

**Model (1)**

$$\text{VOLFINDIS} = \beta_0 + \beta_1 \text{VOL} + \beta_2 \text{AGE} + \beta_3 \text{CITY} + \beta_4 \text{EDUC} + \beta_5 \text{EXP} + \beta_6 \text{ACT} + \beta_7 \text{IND} + \beta_8 \text{SIZE} + \beta_9 \text{ROS} + \varepsilon$$

VOLFINDIS: the level of voluntary financial disclosure measured by the grid of analysis developed by Botosan (1997).

VOL: voluntary service measure which takes "1" if the CEO participates in associations and "0" otherwise.

AGE: age measure

CITY: city-origin measure which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise

EDUC: education level measure

EXP: experience measured by the number of years occupied by the manager within the company as CEO

ACT: experience measured by a dichotomy variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector

IND: the industry is equal to "1" if the company is an industrial firm and "0" otherwise. SIZE: the size measured by logarithm of sales

ROS: profitability measured by sales efficiency

For the following three sub-models, we want to see the impact of the same explanatory variables on every sub-score, namely, financial review, forecast information and financial information about analysis and discussion of company's direction.

*Model (2)*

$$\text{P-VOLFINDIS} = \beta_0 + \beta_1 \text{VOL} + \beta_2 \text{AGE} + \beta_3 \text{CITY} + \beta_4 \text{EDUC} + \beta_5 \text{EXP} + \beta_6 \text{ACT} + \beta_7 \text{IND} + \beta_8 \text{SIZE} + \beta_9 \text{ROS} + \varepsilon$$

**P-VOLFINDIS** refers to the level of voluntary disclosure of past financial information measured by the grid of analysis developed by Botosan (1997)

*Model (3)*

$$\text{F-VOLFINDIS} = \beta_0 + \beta_1 \text{VOL} + \beta_2 \text{AGE} + \beta_3 \text{CITY} + \beta_4 \text{EDUC} + \beta_5 \text{EXP} + \beta_6 \text{ACT} + \beta_7 \text{IND} + \beta_8 \text{SIZE} + \beta_9 \text{ROS} + \varepsilon$$

**F-VOLFINDIS** refers to the level of voluntary disclosure of forecast information measured by the grid of analysis developed by Botosan (1997).

*Model (4)*

$$\text{D-VOLFINDIS} = \beta_0 + \beta_1 \text{VOL} + \beta_2 \text{AGE} + \beta_3 \text{CITY} + \beta_4 \text{EDUC} + \beta_5 \text{EXP} + \beta_6 \text{ACT} + \beta_7 \text{IND} + \beta_8 \text{SIZE} + \beta_9 \text{ROS} + \varepsilon$$

**D-VOLFINDIS** refers to the level of voluntary disclosure of information related to the analysis and discussion of company direction measured by the grid of analysis developed by Botosan (1997).

## 5. Presentation of results

### 5.1 Descriptive analysis of the dependent variable

Table 4 reports the descriptive statistics for the voluntary disclosure measure.

**Table 4. Descriptive statistics for the voluntary disclosure**

Dependent Variable	N	Minimum	Maximum	Average	Standard deviation
<b>VOLFINDIS</b>	64	5	51	18.61	7.474
<b>P-VOLFINDIS</b>	64	1	25	7.95	5.125
<b>F-VOLFINDIS</b>	64	0	23	4.08	4.664
<b>D-VOLFINDIS</b>	64	1	19	6.56	3.007

*VOLFINDIS: the level of voluntary financial disclosure, P-VOLFINDIS: the level of voluntary disclosure of past financial information, F-VOLFINDIS: the level of voluntary disclosure of forecast information, D-VOLFINDIS: the level of voluntary disclosure of information related to the analysis and discussion of company direction*

From the analysis of Table 4, we can notice that the average level of voluntary financial disclosure is 18.61. This average is relatively low in comparison with that found by Botosan (1997) for her sample of American companies, which was equal to 30. This proves that Tunisian firms reveal less voluntary information than American ones. We noticed that voluntary disclosure is not enough widespread in Tunisian companies. The sub-scores of disclosure about historical information, anticipatory information and information concerning the analysis of firm direction are relatively low. The average of the sub-scores does not exceed 7 points, which shows that the level of disclosure of the information is rather low.

Through these descriptive statistics, we can assert that Tunisian companies grant more importance to the disclosure of historical financial information (average score of 7.95), followed by the information concerning the analysis and discussion of firm direction (average score of 6.56), and finally the disclosure of forecast information, which is the least present in the annual reports of Tunisian companies (average score of 4.08).

## 5.2 Descriptive analysis of independent variables

Table 5 reports the descriptive statistics for the independent variables.

**Table 5. Descriptive statistics of continuous variables**

Variables	N	Minimum	Maximum	Average	Standard deviation
<b>EXP</b>	64	1	34	8.67	9.047
<b>SIZE</b>	64	4,5837	9,5034	7.4054	1.2262
<b>ROS</b>	64	-0,21	1	0.1201	0.2103

*EXP: experience measured by the number of years occupied by the manager within the company as CEO, SIZE: the size measured by logarithm of sales, ROS: profitability measured by sales efficiency*

From the analysis of Table 5, we can notice that the average experience of the manager within the company as CEO is around 8.5 years. It varies between a minimum of 1 year and a maximum of 34 years. The average size of the Tunisian companies is 7.4054. It varies between a minimum of 4.5837 and a maximum of 9.5034. The average performance of the Tunisian companies of our sample is 0.1201. It varies between a minimum of -0.21 and a maximum of 1.



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**Table 6. Descriptive statistics of dummy variables**

<b>Variables</b>	<b>Observation</b>	<b>Effectives</b>	<b>Percentage</b>
<b>AGE1</b>	Between 25 et 39	2	3.1
<b>Reference Model</b>	Between 40 et 54	36	56.3
<b>AGE2</b>	55 years and more	26	40.6
	Total	64	100
<b>EDUC_1</b>	< =Bac	0	0
<b>EDUC_2</b>	Bachelor	2	3.1
<b>EDUC_3</b>	Master	10	15.6
<b>Reference Model</b>	Master/ Engineering	46	71.9
<b>EDUC_4</b>	Doctorate	6	9.4
	Total	64	100

*AGE: age measure, EDUC: education level measure*

Table 6 presents the descriptive characteristics of the dummy independent variables: The majority of the managers are between 40 and 54 years old. Indeed, 56.3% of the managers are in this interval, 3.1% of the managers are between 25 years old and 39 years old, and 40.6% of the managers are more than 54 years old. Concerning the variable 'Education' of the managers, we can notice that the majority of the managers are situated at the level of the reference modality and thus possess a diploma of a Master's or engineering degree. This group represents a percentage of 71.9% of the sample. We noticed that all managers of the sample have an upper graduate degree that is why this dummy variable will be eliminated from our study.

**Table 7. Descriptive statistics of dichotomous variables**

<b>Variables</b>	<b>Observation</b>	<b>Workforces</b>	<b>Percentage</b>
<b>CITY</b>	0 (Other country)	56	87.5
	1 (Tunis City)	8	12.5
	Total	64	100
<b>VOL</b>	0 (Not Membership in associations )	32	50
	1 (Membership in associations)	32	50
	Total	64	100
<b>ACT</b>	0 (Past Experience in other sector)	23	35.9
	1 (Past Experience in the same sector)	41	64.1
	Total	64	100
<b>IND</b>	0 (Not industrial firms)	26	40.6
	1 (Industrial firms)	38	59.4
	Total	64	100

*CITY: city origin measure which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise, VOL: voluntary service measure which takes "1" if the CEO participates in associations and "0" otherwise, ACT: experience measured by a dichotomy variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector, IND: the industry is equal to "1" if the company is an industrial firm and "0" otherwise*

The descriptive statistics of the dichotomous variables presented in Table 7 show that 87.5% of the managers of the sample are not from the main city Tunis. Regarding voluntary service, statistics show that 50% of the managers of this sample are members in associations while it is not the case for the other half of the sample. Moreover, 64.1% of the managers in this sample worked in the same business sector as that of the current company. Concerning the business sector, 59.4% of companies belong to industry while 40.6% of companies belong to other business sectors.

### 5.3 Test of correlations

Before beginning the multivariate analysis, it is essential to analyze the interactions between the explanatory variables. Indeed, the examination of the Pearson matrix of correlation presented in Table 8 has confirmed the non-existence of problems related to strong multi-co-linearity between the explanatory variables of our study. We noticed that the coefficients of correlation are less than 0.8 (the limit fixed by Kennedy (1985), which proves the non-existence of the problem of multi-co-linearity.

**Table 8. Correlations of variables**

	CITY	VOL	AGE1	AGE2	EDUC_2	EDUC_3	EDUC_4	EXP	ACT	IND	SIZE	ROS
CITY	1											
VOL	-0.094	1										
AGE1	-0.068	-0.180	1									
AGE2	0.265	-0.064	-0.149	1								
EDUC_2	0.475	-0.18	-0.032	0.217	1							
EDUC_3	0.228	0.344	-0.077	-0.005	-0.077	1						
EDUC_4	-0.122	0.107	-0.058	-0.266	-0.058	-0.138	1					
EXP	0.347	0.061	0.087	0.315	0.282	0.159	-0.212	1				
ACT	-0.111	-0.033	-0.240	0.089	-0.240	-0.206	0.111	-0.234	1			
IND	0.024	-0.127	0.149	0.036	0.149	-0.345	0.266	-0.095	-0.354	1		
SIZE	0.086	0.006	-0.114	0.226	0.038	-0.002	-0.194	-0.050	-0.076	0.080	1	
ROS	0.233	-0.163	-0.151	-0.116	-0.020	0.097	-0.028	-0.023	-0.017	0.052	0.321	1

*CITY: city origin measure which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise, VOL: voluntary service measure which takes "1" if the CEO participates in associations and "0" otherwise, EXP: experience measured by the number of years occupied by the manager within the company as CEO, ACT: experience measured by a dichotomy variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector, AGE: age measure, EDUC: education level measure, IND: the industry is equal to "1" if the company is an industrial firm and "0" otherwise, SIZE: the size measured by logarithm of sales, ROS: profitability measured by sales efficiency*

After having examined the bivariate correlations between the explanatory variables, it is usual to test for the absence of multi-co-linearity by the use of a method of multivariate correlations known as the VIF test (Variance Inflation Factor).

**Table 9. VIF test**

Variables	VIF
<b>CITY</b>	1.680
<b>VOL</b>	1.392
<b>EXP</b>	1.505
<b>ACT</b>	1.493
<b>AGE1</b>	1.278
<b>AGE2</b>	1.496
<b>EDUC_2</b>	1.519
<b>EDUC_3</b>	1.467
<b>EDUC_4</b>	1.353
<b>IND</b>	1.448
<b>SIZE</b>	1.363
<b>ROS</b>	1.424

*CITY: city origin measure which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise, VOL: voluntary service measure which takes "1" if the CEO participates in associations and "0" otherwise, EXP: experience measured by the number of years occupied by the manager within the company as CEO, ACT: experience measured by a dichotomy variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector, AGE: age measure, EDUC: education level measure, IND: the industry is equal to "1" if the company is an industrial firm and "0" otherwise, SIZE: the size measured by logarithm of sales, ROS: profitability measured by sales efficiency*

The limit suggested by Myers to make sure of the absence of multi-co-linearity is 3. In the present study, the analysis of VIF in Table 9 confirms the non-existence of a multi-co-linearity problem, given that no value is greater than 2.

## **6. Discussion of the results**

From Table 10, it is possible to determine the significant variables having an effect on the level of voluntary financial disclosure.

Table 10. The regression coefficients

Variables	VOLFINDIS Sig	P-VOLFINDIS Sig	F-VOLFINDIS Sig	D-VOLFINDIS Sig
CITY	0.331	<b>0.039**</b>	0.535	0.591
VOL	0.449	<b>0.006***</b>	<b>0.017**</b>	0.426
EXP	0.797	0.492	0.933	0.805
ACT	0.377	0.152	0.390	<b>0.071*</b>
AGE1	<b>0.035**</b>	0.583	0.144	0.210
AGE2	<b>0.018**</b>	<b>0.008***</b>	0.294	0.748
EDUC_2	0.431	0.842	0.467	0.152
EDUC_3	0.282	0.619	<b>0.058*</b>	0.839
EDUC_4	0.626	0.415	<b>0.070*</b>	<b>0.000***</b>
IND	<b>0.001***</b>	<b>0.005***</b>	<b>0.050**</b>	0.586
SIZE	<b>0.000***</b>	<b>0.001***</b>	<b>0.008***</b>	0.232
ROS	<b>0.080*</b>	0.793	0.216	<b>0.018**</b>

*VOLFINDIS: the level of voluntary financial disclosure, P-VOLFINDIS: the level of voluntary disclosure of past financial information, F-VOLFINDIS: the level of voluntary disclosure of forecast information, D-VOLFINDIS: the level of voluntary disclosure of information related to the analysis and discussion of company direction, CITY: city origin measure which takes "1" if the CEO is from Tunis-City (the capital) and "0" otherwise, VOL: voluntary service measure which takes "1" if the CEO participates in associations and "0" otherwise, EXP: experience measured by the number of years occupied by the manager within the company as CEO, ACT: experience measured by a dichotomy variable which takes "1" if the CEO worked in the same business sector and "0" if the CEO worked in another business sector, AGE: age measure, EDUC: education level measure, IND: the industry is equal to "1" if the company is an industrial firm and "0" otherwise, SIZE: the size measured by logarithm of sales, ROS: profitability measured by sales efficiency*

*The city of origin:* The results of the multivariate analysis show that the regional belonging of the managers has a significant effect on the extent of voluntary disclosure of forecast information (F- VOLFINDIS). A negative sign was noticed, which demonstrated that managers from Tunis City reveal less voluntary forecast financial information than managers from other cities. Consequently, it turns out that the behavior of an individual cannot be totally explained by individual variables. Socio-cultural factors influence choices and attitudes. Indeed, managerial practices differ from one country to another according to the specificities of each region, as well as the values and habits of managers. The belongings of the manager constitute his first place of learning and consequently the manager is exposed to this source of influence, namely the environment in which he lived helps forming his personality and plays a central role in the explanation of his acts.

This result agrees with that reported by Gray (1988) who noticed that national cultural values affect practices of broadcasting company information, and with the study of Goll and Zeith (1991) who considered that managers differ in their values, their beliefs and their ideologies, which explains the heterogeneity of their practices. Furthermore, Singhvi (1986) asserts that the nationality of the managers affects the quality of disclosure. Singhvi shows that the exhaustiveness of the information is inferior when firms are managed by Indian managers when compared with those managed by foreign managers. Likewise, the previous studies used four cultural dimensions of Hofstede (1980). Indeed, in individualistic companies, individuals favor their personal interests and the environment is less conservative, which implies a positive relation between the disclosure of information and individualism (Jaggi & Low, 2000; Hope, 2003). In countries with strong cultural masculinity, managers tend to have a stronger favor for disclosure (Jaggi & Low, 2000). Ghiselli and Porter (1966) showed that the cultural environment explains similarities and differences in the attitudes of managers in fourteen countries.

*Voluntary service:* The measure of voluntary service gives a clear idea about the concerns of the manager and his degree of openness within the company and outside it. Indeed, statistical results of the model concerning the disclosure of historical financial information (P- VOLFINDIS) showed that the explanatory variable 'voluntary service' has a negative and significant effect on the level of voluntary disclosure of this type of information, However, the multivariate analysis of the model concerning the voluntary disclosure of forecast information (F-VOLFINDIS) revealed that voluntary service has a positive and significant effect.

It was clear that activities of the manager outside his work reveal his preferences as well as his talents. Consequently, the participation of the manager in associations encourages him to disseminate more forecast information than historical information. This brings us to deduce that these managers grant more importance to the anticipation of the future evolution of the company than to description of its past financial situation. Beyond the skills of the manager, membership in associations and clubs and openness towards the outside are at the origin of the development of managerial practices which could potentially benefit the company. The development of the manager, his potential and his limitations, become a major factor for the organization and for which it is responsible: the potential and limitations of the organization are determined by the potential and limitations of the manager who is responsible for it (Lenhart, 2001).

*The age of the manager:* Empirical results showed that the age of the manager is an explanatory factor for the extent of voluntary financial disclosure (VOLFINDIS). Results of the multivariate analysis showed that managers in the youngest age

interval [25 years, 39 years] have a negative and significant effect on the level of voluntary financial disclosure. However, managers that are 55 years old and older have a positive and significant effect on the extent of voluntary financial disclosure. We can thus notice that younger managers tend to be more conservative in terms of voluntary financial disclosure than older managers.

Statistical results relative to categories of disclosure showed a positive and significant relation between the age of managers who are 55 years old and over and the level of voluntary disclosure of historical financial information. This could be due to the extensive knowledge of older managers about the evolution of the company's activities and its past results. By comparing observed results with those of the study led by Bertrand and Schoar (2003), we notice that oldest managers are conservative during the adoption of the firm's investment policy, whereas they are flexible and open about the choice of disclosure. Indeed, it is clear that the age of the manager reveals his working potential, but also reveals his style of management, his choices in decision-making, and even his practice of voluntary disclosure within the company.

*Last experience:* The obtained results relative to the model (D-VOLFINDIS) show that the last experience of the manager spent in another company in the same business sector has a positive and significant effect on the level of voluntary disclosure of information concerning the analysis of the company direction. According to Datta and Guthrie (2002), characteristics and the experience of managers vary considerably from one industry to another, and the background knowledge of the business sector and its specificities represent a factor of selection of the manager (Gunz *et al.*, 2000).

These results could be explained by the fact that managers who had worked in the past in the same business sector as that of the current company, master better the activities of the company, and tend consequently to broadcast more voluntary financial information concerning the analysis and discussion of the company direction than other managers belonging to a different business sector.

*Education:* It turns out that the educational level of the manager is a factor influencing the level of voluntary disclosure of forecast information (F-VOLFINDIS) and information concerning the analysis and discussion of company direction (D-VOLFINDIS). Indeed, managers possessing a Master's degree or a Doctorate have a negative and significant effect on the level of voluntary disclosure of forecast information (F-VOLFINDIS) whereas doctorate degree exercises a positive and significant effect on the level of voluntary disclosure of information concerning the analysis of the company's direction (D-VOLFINDIS).

We can conclude that managers with a Doctorate degree are more incited to reveal precise and detailed information allowing for analysis and discussion than for forecasting information, and consequently their profiles allow them to be more present during the explanation, description and analysis of the financial situation of the company. This result was not observed in the results relative to the general model (VOLFINDIS). This means that the educational level of the manager has a significant effect only on the subcategories of voluntary financial disclosure and, more precisely, on the disclosure of forecast information and information concerning the analysis of the company direction.

This result is supported by a prior research led by Haniffa and Cooke (2002) who underlined the importance of education level as an important determiner of disclosure. Also, Gray (1988) showed that education level is a factor which affects accounting practices. A board of directors with members having different backgrounds (accounting, management, business) tends to broadcast more information to improve the credibility of the company. Other studies have also shown that the background of the financial directors is important for explaining the preparation of annual reports (Abayo & Robert, 1993; Ge *et al.*, 2008).

*Industry:* Results of the multivariate analysis of the general model (VOLFINDIS) revealed that the industry in which the company operates has a positive and significant effect on the extent of voluntary financial disclosure. Indeed, Tunisian industrial companies tend to reveal more voluntary financial information than companies belonging to other sectors. Also, this result was observed at the level of the model concerning the voluntary disclosure of historical financial information (VOLFINDIS) and the model of the voluntary disclosure of forecast information (F-VOLFINDIS).

This result supports the work of Meek *et al.* (1995), Raffournier (1995) and Chen *et al.* (2002). They found a positive and significant relationship between the firm's industry and the extent of voluntary disclosure. Furthermore, according to signal theory, some information revealed voluntarily by companies belonging to the same sector becomes customary, which means that the non-publication of this information will be interpreted by investors as being a negative signal to the financial market (Dye & Sridhar, 1995). Indeed, because of the specificities of their activities, industrial companies adopt this strategy of voluntary disclosure to send a positive signal to the financial market with the aim of improving their stock price. However, by consulting results of the model concerning the disclosure of information concerning the analysis and discussion of company direction, we found no significant relationship between the firm's industry and this category of voluntary information. Additionally, a negative sign was noticed, which implies that companies tend to preserve information concerning the analysis of the company direction and grant more importance to historical financial information

and to forecast information, which can be, according to them, more useful to send a positive signal to the financial market.

*Firm Size:* Contrary to previous literature, results of the multivariate analysis of the general model (VOLFINDIS) showed that firm size has a negative and significant effect on the extent of voluntary financial disclosure. That is, large-sized companies are less interested in the disclosure of voluntary financial information. Also, this result was observed at the level of models relative to the voluntary disclosure of historical financial information (P-VOLFINDIS) and forecast information (F-VOLFINDIS). Additionally, this result is contrary to agency theory which confirm that large companies are more visible than small companies that's why they tend to disclose more voluntary information. Indeed, major shareholders have more privileged access to information than minority shareholders and the agency theory implies that companies increase disclosure to mitigate conflicts between shareholders and managers and to reduce information asymmetry. However, regarding the voluntary disclosure of information concerning the analysis of company direction, obtained results show that the sign is positive and not significant. This means that large-sized companies tend to disclose more precise and detailed information concerning the analysis and discussion than historical and financial forecast information.

*Firm profitability:* In this study, we conclude that the firm's profitability affects voluntary financial disclosure. Statistical results of the general model (VOLFINDIS) showed that firm profitability has a negative and significant effect on the level of voluntary financial disclosure. Indeed, the most successful companies are not motivated by the broadcasting of optional financial information. Regarding the three models relative to the disclosure of voluntary financial information, results demonstrated that the performance has a negative and significant effect on the level of voluntary disclosure of information concerning the analysis and discussion of company direction. We think that this result could be due to the nature of the information, given that managers are motivated to publish details concerning the analysis of company direction in order to describe the financial situation of their firms. In accordance with the results of Bertrand (2000), which showed that in the French market companies with lower performance tend to disclose more voluntary information in order to protect their reputation and to be transparent in the financial market.

The non-significance of the models concerning historical and forecast voluntary financial disclosure can be explained by the fact that Tunisian companies make appeal to bank debts rather than to the financial market, and thus these companies do not have to broadcast voluntary information in their annual reports because they can supply it directly to the banks.



Results obtained in the models (see Table 10), allowed us to conclude that the basic hypothesis relative to the profile of the manager is confirmed.

## **7. Conclusions**

This paper presents the effect of manager's profile on the extent of voluntary financial disclosure in the annual reports of Tunisian companies for the period of 2008-2009. Over the past few years, the economic transformation in Tunisia affected a number of issues related to disclosure. In fact, a set of reforms occurred to improve governance practices: the promulgation of the law No. 2005-96 relating to financial security, the publication in 2008 of a Guide About Good Governance Practices of Companies (GGGPC), the Guide of the Annual Report of the Tunisian Companies in 2009 (GARTC); as well as the establishment of the Tunisian Centre of Company Governance (TCCG), in 2009 (Chakroun & Mattoussi ,2012). Major changes in Tunisia have been affected by the join of the MENA zone which contributes to attracting international investors and to enforce the quality of governance in Tunisia.

Consistent with upper echelons theory (Hambrick & Mason, 1984) which outlined that individual manager matter and affect their managerial choices (Smith and White 1987; Thomas *et al.* 1991; Tihanyi *et al.* 2000; Naranjo-Gil & Hartmann 2006; Crossland & Hambrick 2007), in our study, we found out that the variable 'age' of the manager has a significant effect on the extent of voluntary financial disclosure. Furthermore, old managers tend to broadcast more historical financial information than younger ones. So, this finding confirms that older managers tend to disclosure less forecasting information (Bamber *et al.*, 2010).

On one hand, the variable 'voluntary service' and the level of voluntary disclosure of historical financial information are negatively correlated. On the other hand, the influence of voluntary service on the extent of voluntary disclosure of forecast information is positive. The variable 'city' of the manager has a negative and significant effect on the level of voluntary disclosure of historical information. Furthermore, old managers tend to broadcast more historical financial information than younger ones. Concerning the variable relative to the education of the managers, the results indicate that the education level of the manager, and more exactly those having a Master's degree or a PhD is associated negatively with the level of voluntary disclosure of forecast information. Contrary to Bamber *et al.* (2010), the results confirm a positive relationship between managers with MBA and disclosure of forecasting information. Besides, post graduate background of the manager and his last work experience influence positively and significantly the level of voluntary disclosure of information concerning the analysis and discussion of the company direction.

The only factor, which was not considered as explanatory in the model, is the experience within the company. Finally, the results contribute to the literature in different ways. Our evidence proving that the manager's profile plays a significant role in explaining the level of voluntary financial disclosure responds to Brochet *et al.* (2009) research which suggests an association between the disclosure decision and managerial styles. Our evidence also contributes to enrich the literature that has largely focused on manager's effect with regard to explaining operating and financing decisions.

As in any research, this study has been confronted to some limits. The first one is related with the sample size, which is relatively restricted due, on one hand, to the nature of the information, which is generally confidential for the managers, and, on the other hand, the unfavorable conditions for data collection in the wake of the Tunisian revolution.

The second limit that could be mentioned is that several specific sociological, cultural and even psychological aspects of managers were not introduced at the level of the empirical study because of the type of information and the search tool used. That is, the questionnaire is insufficient to obtain deeper information. The third limit concerns the medium of our work: we limited the research to annual reports for the study related to the extent of voluntary financial disclosure. Certainly, the latter is the source document of the company on which various stakeholders rely for their decision-making, but there are other means of voluntary publication which can be very effective to measure the level of voluntary disclosure, such as disclosure via web sites.

This research is only an attempt to introduce the human dimension as an explanatory factor for the extent of voluntary financial disclosure in the context of our country. Independently of the weight and the importance of the observations which we were able to record, they will certainly contribute to enrich the literature on voluntary disclosure.

This study opens several future lines of research. It could be tested on a wider sample by proceeding with a comparative study between the effect of the characteristics of managers on the extent of voluntary disclosure in Tunisia and in other countries or a comparative study explaining voluntary financial disclosure between listed and unlisted companies. Furthermore, the introduction of psychological aspects relative to managers (e.g. risk aversion, overconfidence) would enrich this study. We also suggest studying the behavior of managers towards voluntary disclosure after the Tunisian revolution.

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