IMPACT OF MANAGERIAL POWER AND THE PERSONAL CHARACTERISTICS OF CEO ON THE PERFORMANCE: CASE OF THE TUNISIAN COMPANIES

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Abstract

The main objective of this article consists in determining the impact of the management power and the manager's personal characteristics on the performance of the highly-rated enterprises. This paper examines two approaches. The first one specifies the leader's power by referring to the management characteristics as a group of personal sociological and professional aspects. The second one is concerned with the effect of these characteristics on the companies' performance. In order to test the validity of the theoretical hypotheses, the empirical study is based on a sample of 32 Tunisian highly-rated enterprises during the period 2000-2005. The results have shown that the leader's power, made up of indicating variables, plays an important role on the stock exchange and accounting performance. This fact leads us to conclude that all management characteristics contribute to the reinforcement of this power and to its effects on the enterprises' performance.

Keywords: The leader's power, The enterprise's performance, Management characteristics

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I. Introduction

The performance constituted an important preoccupation for the economists and the managers. Recent research is interested in the mechanisms by which the performance of the firm is established. In addition of the external factors, several researchers suggest that the personal characteristics of the CEO have an effect on the realization of the performance. In other words, the performance only improves when the firm entrusts its activities to CEO having specific managerial competences. This delegation given birth to many conflicts and also divergences of interest between the different partners of the firm. This debate was initiated by Berle and Means (1932) and then by Jensen and Meckling (1976). The agency theory is put in advance within this framework of relation. In absence of control mechanisms, CEO procure discretionary latitude which encourages them to satisfy their own interests and intentions without realizing those of the firm. For this reason, the firm must exert a strict control on CEO. If the control of the firm becomes limited, every CEO is capable in this case to impose his own style. According to this vision, the CEO impact increases when the source of internal or external control weakens (Miro, Erez and Naveh, 2004). The particular attention, reach on the CEO power, stimulated the interest of several researchers. Thus, an abundant literature (Bertrand and Mullainathan, 2003, Bertrand and Schoar, 2003, Malmendier and Tate, 2003, Adams, Almeida and Ferreira, 2003 and Baber and Fabbri, 2006) seeks to analyze the impact of managerial power on the performance of the firm. The results of the studies are mitigated and little conclusive. Most researchers are limited to suppose the CEO power without wondering about the managerial characteristics which contribute to the genesis of this power. The taking into account of these characteristics supposes that each type of aspect, related to the CEO specificity, is an indicator taking part in the reinforcement of the managerial power and consequently on its effect on the performance of the firm. The previous works have been explored in the developed countries and neglect the implication of this evidence on the emergent countries. The incentive of this study essentially consists in checking if the theoretical predictions remain valid in the Tunisian context and to establish the relation between the power of CEO and the performance of Tunisian firm.

This research is thus interested in answering the following question: "What are the impact of managerial power and the personal characteristics of the CEO on the performance of Tunisian firm?"

This paper is structured of the following manner. In second, we reveal the theoretical framework assumptions formulated as for the specificity of the CEO and the repercussion of managerial power on the performance of the firm. In third, we expose the methodological elements and the empirical models used in order to test the relations released on the Tunisian firms.

II. Theoretical framework and formulation of assumptions

On the basis of the theoretical foundations, we are going to put the accent on the CEO specificity as whole of sociological, personal and professional type aspects. Besides, we are going to clear a series of relative theoretical assumptions relating to the effect of the CEO power on the performance of the firm.

1. CEO specificity

The new orientation of managerial theory is interested in the study of the CEO specificity. It recommends the analysis of all variables that constitute it as well as their effects on certain aspects of the CEO behaviour. Indeed, the CEO specificity doesn't only take account of the professional expertise but it includes the culture and the CEO values. This new tendency is adopted in the empirical works of Bertarnd and Schoars (2002) putting the accent on the CEO dimension. In the same way, Malmendier, Feel and Yan (2005) approve their theoretical concepts by the CEO characteristics.

Nevertheless, the functions of the CEO knew an evolution after the increased changes that touched the structure of the business and the accentuation of economical complexity. Therefore, the CEO characteristics are important as the level of the firm allowing clarifying the decision of the firm. This change, affecting the firm, have emerged the managerial power that appears through the evolution of the CEO characteristics. A review of the principal study carrying on the CEO specificity enabled us to identify several criteria linked to the aspects that contribute to the formation of managerial characteristics.

Sociological aspects

While referring to the recent theoretical literature, the CEO specificity depends essentially on the sociological aspects. In this frame, some studies looked into the distinction between male and female characteristics of the CEO (Zapalska, 1997, Denis, Robert, Kunkel and Denis, 2004). They showed that the CEO men are competent, active, independent, confident, objective and responsible whereas the CEO women have more emotion, dependence, sensitivity and consideration. The survey of Baber and Fabbri (2006) announces that the proportion of CEO women is weak compared to the CEO men. Butterfield and Parent (2002) insist on the act that the most competent CEO and exercising the most power are the men. On the contrary, the CEO women are more interested in the improvement of professional quality without distrusting of managerial power.

Besides, the managerial literature envisages the age like a necessary quality identifying the CEO sociological aspect. Barker and Mueller (2002) and Buchhotz and al., (2003) estimate the effect of managerial age on the intentions of CEO. In this sense, an old CEO does not interest to adopt the innovation and to adhere to the new ideas. Whereas , a young CEO is interested in taking more risk and initiative (Hambrick and Mason, 1984). He can appear more flexible as for the change to the new practices than an old and more aged CEO. Tsai and al., (2004) pretend that managerial influence expressed by the CEO power is strong in firm having young CEO. These companies give a great importance to the strategic and financial goals and adopt a similar behaviour of the firms in the developed countries. Managerial literature considered the family situation of CEO as a fundamental specificity relating to the sociological aspects. Sponholtz (2006) supports the idea according to which the married CEO becomes attached to the stability since they take into account their families at the moments of decisions making.

Personal aspects

The personal aspects of CEO are reflected in his ability of creation and innovation like in its capacity of exploration, vision and forecasting future opportunity. On the one hand, the CEO, endowed with a certain power, has a higher ability of reasoning. He explains and negotiates the decisions and judgments with the internal and external members in the firm. He clarifies, verifies and interprets the technical procedures and financial reports since he knows the concepts, the foundations and the necessary principles for their analysis (Healey and Palepu, 2001). On the other hand, the visionary CEO must be able to prejudge and to anticipate the environment for future changes. The study of Legohérel and al., (2004) confirms the CEO capacity to predict the future in the company by favouring more flexibility.

Professional aspects

The dependent professional aspects to the CEO are notably the professional experience, the level of instruction and the seniority. These aspects are considered as being the most substantial dimension as for the CEO specificity and also most studied in the literature. Nevertheless, a CEO having a high level of instruction has a great capacity to treat, to transfer information and to innovate rather than CEO has a weak instruction level (Gottesman and Morey, 2005). As several studies suggest it, notably that of the Hambrick and Futkomi (1992), each CEO has a repertory to know how to make acquirement at the time of his previous experience.

The functional knowledge represents an important attribute forming the base of the professional experience and consequently an important indicator for competences of the CEO. Thus, the professional experience reinforces the managerial power. Since Cyert and March (1963), the literature supported that leaders having passed long periods in organizations have relatively limited perspectives, a base of narrow knowledge and conduct a restricted research. These leaders are more tied to stability and efficiency of the strategies (Chaganti and Sambharya, 1987). Besides, leaders having a short seniority have the tendency to pursue strategies related to the differentiation of products of the market or the innovation.

Capacities of the CEO

The CEO capacities became an essential preoccupation in managerial literature. They are expressed by the specialized training that leaders acquire through the performance of their duties. They are thus estimated like strategic orientations in their works. Besides, the analysis of the CEO capacities is explained by the birth of social relation maintained between the CEO and parts allying in the firm. The emergence of this relation is at the profit of the firm sine it procures more of flexibility, adaptability with customers and other recipients.

2. Relation between the power of the CEO and the performance of the firm

The power is defined as being the degree of influence affecting the organizational performance. Indeed, the leader having the power is the one which his decision has a strong implication on the performance of the firm (Adams, Almeida and Ferreira, 2003). This opinion is also shared by Daily and Johnson (1997). They advance that the efficient presence of CEO in the firm permits him to detain the part the most important of the power. In this same vision, CEO exercise their powers from a combination between the own components of the organization and those relative to the personal characteristics. However, the growth of the firm is not determined solely by the economics factors but also by the own human parameters to CEO (Daviedson, 1989). Therefore, the personal objectives are not dissociated objectives of the firm (Bamberger, 1983, Miller and Toulouse, 1986, O’Farrells and Hitchinses, 1988).

Besides, the personal qualities of the CEO remain an essential contribution for the capacity of innovation and development of the firm performance. (Laursen and Foss, 2003). Cosh et al., (2006) enunciated that the amplitude of the performance of the firm increases when it is realized by a group of managerial human resources rather when it is carried out by each resource individually. In the same way, the firms favouring managerial structure have a meaningful effect on efficiency of the performance and the process of innovation.

2.1. Impact of CEO seniority on the performance of the firm

One source of managerial power comes from the relation between managerial seniority and the organizational performance. Allgood and Farrell (2000) highlight that the CEO power increases when the CEO seniority increases. More specifically, Gibbons and Murphy (2002) and Milbourn (2003) advance that the long seniority is indicatory of the CEO higher ability. On the empirical level, it has been noted that the CEO seniority is associated to the superior performance of the firm (Dennis and Dennis, 1995). The drawn findings of the works of Tsai and al., (2004) confirm this perspective. Rajgopal and Zhang (2005) show that the CEO reputation, expressed by its seniority in the firm is a significant factor representing the increase of the performance. Therefore, we suggest the following assumption:

Assumption 1: the seniority of the CEO is related positively to the performance of the firm.

2.2. Impact of the CEO age on the performance of the firm

In order to better clarify the CEO power, Joos, Leone and Zimmerman (2003) put the accent on the relation between the age of the CEO and the complexity of the firm. They announce that the old CEO are employed in firm of larges sizes and of complex nature. In this sense, Datta, Rajagoplan and Zhang (2003) predict that age exercises the influence on the strategic direction of the firm. This positive impact is also confirmed by studies of McCelland and Baker (2004) and Rajgopal and Zhang (2005). In particular, the young CEO become more tolerant faced with the uncertainty and more open to the adoption of decision which incorporates the risk. They have more energy, dynamism and good will to accept the change. On the contrary, Hambrick and Mason (1984) are interested in the young CEO. They pretend their lack of experience and their ability to acquire and to mobilize the necessary resource with the intention of reaching high level of performance. These authors distinguish a negative relation between the age of the CEO and the performance of the firm. According to Musteen, Barker and Baeten (2005), the old CEO become more rigid and will have more difficulties in order to accept the new ideas. In reference to the agency theory, interests of the CEO and shareholders are aligned only when the CEO attains the retirement age. In this age, The COE can not improve their personal wealth or maximise the value of their equities in an effective way. Nevertheless, as this relation between the CEO age and the performance of the firm is not decided on the theoretical plan, we anticipate the following assumption:

Assumption 2: more the CEO advances in age, more the relation becomes positive (negative) with performance of the firm.

2.3. Impact of the level of instruction of the CEO on the performance of the firm

The high level diploma obtained by the CEO stimulates the growth of the firm. This impact denotes that the type of studies pursued by the CEO has a positive impact on the growth of the firm. Several previous studies (Storey and al., 1989 and Westhead,

1995) confirm this positive relation. In this context, Bertrand and Schoar (2002) and Datta, Rajagoplan and Zhang (2003) support that CEO having acquired a level of well structured instruction manage their firms toward of new strategic directions. However, Gotteman and Movey (2005) provide that the CEO cognitive capacity is positively jointed to the performance of the firm. In this case, CEO enjoying a strong intelligence are more ready to react in the process of information than those having a weaker level. These authors also reveal that the level of instruction is presented like a strong indicator of the social prestige. In the same way, they suppose that the performance of the firm is influenced when the CEO advances in his career thanks to the social networks. So we adopt the following assumption:
Assumption 3: the level of instruction of the CEO is positively related to the performance of the firm.

2.4. Impact of the CEO style on the performance of the firm

According to Janssen (2002), every CEO reaches the professional network of the firm independently of his style. Whereas, the survey of Delmar (1999) states that there is a negative relation between the style of the CEO and the growth of the firm. In spite, the performance of the firm directed by a CEO man is not differed excessively form that directed by a CEO women (Kalleberg and Leicht, 1991). Musteen, Barker and Baeten (2005) supported that managerial literature was interested in the kind of the CEO only with nomination and representativeness of women in positions of direction. Contrary to the CEO man, the CEO women defy obstacles related to the education and even to the environment of work. In spite of this point of view, the qualified CEO remains always dominated by the traditional male characteristics. Consequently, we choose the following assumptions:
Assumption 4: the man (women) CEO influence positively (negatively) the performance of the firm.

2.5. Impact of the CEO professional experience on the performance of the firm

Several studies found that managerial experiences have a positive incidence on the growth of the firm (Dunkelberg and Cooper, 1982, Smith and White, 1987 and Storey and al., 1989). More recently, Milbourn (2003) indicates that more the experience is longer, more it is reflected favourably on the managerial ability. Moreover, The COE who serves the firm for a long time holds a high share of power because he has influence on the board's members. Therefore, a departure of the CEO having some specialized knowledge and experience can impose costs for the firm because of the lack of efficiency. According to the against current, Gasse (1982) affirms that there is a negative but also a positive relation. Although the professional experience solves the organizational problems, it blocks the creativity and the degree of adaptability of the CEO in the firm. However, the recent study of Herrmann and Datta (2006) explores these same types of links in an international environment. The results of their studies point out that managerial experience confides to the CEO more of confidence in order to opt to the diversification but it procures more risk and develop the problem of asymmetry of information. Therefore, we consider the following assumption:
Assumption 5: the CEO experience is positively (negatively) related to the performance of the firm.

III. Methodology

The objective of this survey consists in validating the assumptions formulated by the theoretical analysis. For this reason, we are going to advance the necessary methodological elements for the empirical analysis of this research. In a first stage, we present the sample of firms considered and we define the retained variables in the analysis. In second stage, we expose the found results and we issue our conclusions.

1. Collection of data and constitution of the sample

In order to test empirically the effect of managerial power on the performance of the firm, we proceeded to the selection of the sample composed by 32 Tunisian enterprises during a period of 6 years going from 2000 to 2005. So, we used a sample panel of 192 observations. The financial data are collected from the BVMT and CMF. We also had recourse to the financial statement, the annual reports and prospectuses of the different firms constituting the sample of our analysis.

2. Measure of variables

We used two types of performance measures: financial performance (MTB) and accounting performance (ROA) as explained variables. Besides, the explanatory variable is the index of managerial power (IP). Nevertheless, the indication is not sufficient to explain the impact of managerial power on the performance of the firm. For this reason, we integrated in the model a group of control variables that change according to characteristics corresponding to the CEO and to the firm.

Performance of the firm

By referring to several studies, we are going to retain 2 indicators of performance.
MTB it: Market to Book: this ratio permits to value the financial performance of the firm. We can approximate this ratio bye the market value on the book value of assets. According to Milgrom and Roberts (1992), the level of financial performance depends on managerial contribution and efforts of the CEO on the profitability of the firm.
ROA it: Return on Assets: this ratio permits to value the accounting performance of the firm. It represents the profitability of assets. It is defined as the report of the operating profit by the total of assets. Daines (2004), Adams and Santos (2005) use the ROA ratio as a measure of performance.

Index of CEO power

The CEO power is approached by three variables constituting the index (Adams, Almeida and Ferreira, 2004). It is an index that tests the degree of managerial power on the performance of the firm. The three indicatory variables are following:

- $i_{1 \text{ no intern in the council other than the CEO}}$: dummy variable equal 1 if it exist other internal administrator other than the CEO in the council and 0 otherwise. The interpretation of this variable is jointed to the number of interns that influence decision taken by the CEO. In a certain measure, the other internal administrators can be competitors as for the position and the CEO power. For this reason, we consider the following assumption:

Assumption (6.1): the existence (absence) of internal administrators in the council other than the CEO is negatively (positively) related to the performance of the firm.

- $i_{2 \text{ founder of the firm}}$: dummy variable equal 1 if the CEO is the founder of the firm and 0 otherwise. In accordance with managerial literature (Danaldson and Lorsch, 1983, Finkelstein, 1992 and Fahlenbbrach, 2006), a CEO founder has a lot of influence. However, Jayarman and al., (2000), Palia and Ravid (2002) and Adams, Almeida and Ferreira (2006) reveal a positive relation between the founder CEO and the performance of the firm. According to this same optic, Anderson and Reeb (2003) affirm that the founder – CEO has a marginal effect on the ROA. Besides, according to Adams and al., (2003), it is plausible that the variable CEO - founder is correlated to the CEO characteristics. We adopt the following assumption:

Assumption (6.2): there is a positive relation between the founder- CEO and the performance of the firm.

- $i_{3 \text{ concentration of titles of the president of the board and the firm}}$: dummy variable that equals 1 if the CEO is at the same time the president of the board and the firm and 0 otherwise. In the case where the CEO is not the president of the board, it is expected that the CEO does not have the influence and the power on the decision making since the president has an important role in the taking of strategic decisions (Adams, Almeida and Ferreira, 2004). Thus, we envisage the following assumptions:

Assumption (6.3): there is a positive relation between the concentration of titles and the performance of the firm.

The index of managerial power, according to Ghosh and Moon (2005), is numbered from 1 to 5. When the index reaches the value 1 (the value 5) it means that the level of managerial power is low (high). These authors confirm that the latter permit to attenuate mistakes of measures associated to every constituent of the index. Dowell, Shackell and Stuart (2005) use the same scale of measurement relating to the index. They showed that the CEO power depends on several components expressed as follows: on the one hand, it is about the duality of functions that affects negatively the performance in certain cases while it acts positively in other situations. On the other hand, the founder of the firm can imply the same relation. It confirms that the position of the CEO, founder or fulfilling a function of duality, stimulates its power and therefore the performance of the firm. In this setting, we consider the following assumption:

Assumption (6): more the index of the power increases (decreases), more the CEO power becomes positively (negatively) related to the performance of the firm.

3. Variables of control

Variables of control are the additional variables representing factors acting on managerial power and having an influence on the performance of the firm. These variables are given as follows:

ANCD it: the seniority of the CEO: it is about the number of years since the CEO nomination. Some researchers as Shepherd and al., (1997) and Dennis and al., (1997) use the seniority of CEO as proxy. Ghosh and Moon (2005) qualify the seniority by the number of years that the CEO passes in the firm. Their studies release a dependence between the seniority of the CEO and the mechanisms of corporate governance since the CEO having a long duration within the firm will have a big managerial power following his strong influence on the performance.

AGED it: the CEO age: this variable reflects the knowledge and the CEO requirements in the firm since it has been recruited. Indeed, a young CEO can accept the technological development and the new method manipulation more easily than a more aged CEO. This latter will be more disposed to follow formations rather if it is attached to traditional practices which degenerate the performance of the firm. Nevertheless, an old CEO try actively to delay the retirement age since it is associated with the low level of being able.

NIEID it: the level of instruction of the CEO: is considered like a dummy variable which equal 1 if the CEO reaches a graduate level or more and 0 in the contrary case. We are inspired of researches of Gottesman and Morey (2005) for the formulation of this variable. The latter suggest that the level of instruction acts positively on the performance of the firm.

GEND it: the CEO type is estimated like a dummy variable which equal 1 if the CEO is a women and 0 otherwise. The CEO type induces a significant effect on the performance of the firm (Bore and Odean, 2001).

EXPD it: the CEO professional experience: estimated like a dummy variable which equal 1 if the CEO experience is more than 2 years in the firm and 0 otherwise. Herrmanna and Datta (2006) provide that the CEO long experience in the firm develop its cognitive orientation in order to stimulate the performance of the firm.

All retained variables in the models as well as their signs and their incidences on performance of the firm with regard to the formulated assumptions are recapitulated in the following table.

Table 1. The model variables

<table>
<tr><th colspan="2">Variables</th><th colspan="2">Abbreviations</th><th colspan="2">Previous Signs</th></tr>
<tr><td rowspan="3">Index of power</td><td>No intern on the council</td><td rowspan="3">IP</td><td>i auc</td><td rowspan="3">positive / negative</td><td>positive/ negative</td></tr>
<tr><td>Founder of firm</td><td>i fond</td><td>positive</td></tr>
<tr><td>Concentration of titles</td><td>i con</td><td>positive</td></tr>
<tr><td colspan="2">Seniority of the CEO</td><td colspan="2">ANCD</td><td colspan="2">positive</td></tr>
<tr><td colspan="2">Age of CEO</td><td colspan="2">AGED</td><td colspan="2">positive / negative</td></tr>
<tr><td colspan="2">Level of instruction of CEO</td><td colspan="2">NIEDD</td><td colspan="2">positive</td></tr>
<tr><td colspan="2">Gender of CEO</td><td colspan="2">GEND</td><td colspan="2">negative</td></tr>
<tr><td colspan="2">Professionnel experience of CEO</td><td colspan="2">EXPD</td><td colspan="2">positive / negative</td></tr>
</table>

4. Models of evaluation

In this setting of analysis, we took in consideration two models of regressions that are presented below. For every type of regression, we put below in evidence a financial or accounting variable, the index of managerial power and the whole of the control variables defined below. These models of linear regression permit to test assumptions formulated in the theoretical framework concerning the impact of managerial power on the performance of the firm. These two models are presented as follows:

(1) $\mathbf{MTB_{it} = \beta_0 + \beta_1\, IP_{it} + \beta_2\, NIEID_{it} + \beta_3\, GEND_{it} + \beta_4\, EXPD_{it} + \beta_5\, ANCD_{it} + \beta_6\, AGED_{it} + \varepsilon_{it}}$

2) $\mathbf{ROA_{it} = \beta_0 + \beta_1\, IP_{it} + \beta_2\, NIEID_{it} + \beta_3\, GEND_{it} + \beta_4\, EXPD_{it} + \beta_5\, ANCD_{it} + \beta_6\, AGED_{it} + \varepsilon_{it}}$

i and t indication of explained and explanatory variables correspond to the firm and the period of study respectively with ε_{it} standard residual term and β_j constitute the unknown parameters of the model.

IV. Empirical results

1. Descriptive statistics

After having identified the different variable of the survey, we propose to present their descriptive statistics in the following table:

Table 2. Descriptive statistics concerning variables of the study

Variable	Observation	Average	Standard Deviation	Min	Max
Variables of performance and CEO characteristics					
ROA	192	1.120467	4.089223	-.181	33.8
MTB	192	.885338	1.264892	.054161	14.287
ANCD	192	15.30208	6.678276	3	35
EXPD	192	.9583333	.2003487	0	1
AGED	192	47.04688	7.891469	32	63
GENRD	192	0	0	0	0
NIVEID	192	.75	.4341448	0	1
Measures of CEO power					
i aucun	192	.7708333	.4213955	0	1
i fond	192	.21875	.4144794	0	1
i con	192	.75	.4341448	0	1

A first look on some statistical indicators of sample data summarized in the table above shows that, while basing on measure of managerial power, the CEO occupies the position of the president of the firm and the board at the same time in 75% of the Tunisian enterprises. Besides, the CEO in the companies of the sample is the only intern who sits at the board of directors for 77% of cases. On the other hand, the CEO of the firm is founder only in 21% of cases. In the light of the descriptive statistics of variables which we retained in the analysis, we note that on the period 2000 - 2005, 88% of the Tunisian companies opt for the MTB ratio as measure of the financial performance. Our survey also reveals that the ROA ratio, translating the accounting performance, records a strong variation rising to 408%. This variability is caused by high ratios (ROA) of the Tunisian banks. The descriptive analysis of the CEO characteristics shows that the managerial age of the sample varies between 32 and 63 years. It implies that the majority of these CEO represent a level of experience which reaches 96% on average. Beside, this survey reveals that the level of instruction of these CEO is, in 75% of cases, a graduate level or more. The Tunisian companies of this sample also prove that all CEO, occupying this station, are men.

2. Results of evaluation and discussion

To measure the influence of different explanatory variable on the financial performance (MTB) and accounting performance (ROA), evaluations of all models are made on data of panels. It is the question in this case of examining models and to check if this observable individual effect is fixed or random. Before proceeding to the evaluation, we start with modelling the individual effects and identifying the effect associated with period (t). By practising the necessary analysis, we decide the rejection of the null hypothesis (absence of individual effects). We can thus carry out the analysis of fixed individual and random effects. In our study, the model with fixed effect is significant but remains no favoured. This is due to certain variables of the evaluation which are greatly correlated to the CEO power variables which remains stable one year to another. We must thus use the estimation of the model with random effect. Actually, the principal difficulty which arises within this model comes from the interrelationship between the explanatory variables and the individual effects. To solve this problem, we used the test of Hausman (1978). It is a general test applied to solve many problems of specification in econometrics. It is used to discriminate the fixed and random effect. Thus, this test permits to determine if the coefficients of the two estimators (fixed and random) are statistically different. For the considered sample, every model includes eight explanatory variables, which leads us to conclude that these statistics follow chi2 (eight degrees of freedom). Although the dichotomy variable (GENRD) is not well estimated, the degree of freedom of Chi2 relative to every model becomes equal to seven. Following the null hypothesis H_0 of correct specification, these statistics are asymptotically distributed according to Chi2 (seven degrees of freedom). If the probability of statistical H is higher than the degree of confidence, we reject the null hypothesis. Therefore, we privilege the adoption of fixed individual effect. With reference to our survey, the probability of the statistics of Hausman for the two empirical models (1) and (2) don't reach the threshold of 10% which is the degree of confidence. While referring to these results, we reject H_0 of absence of correlation between the individual effects and the explanatory variables. Thus, we must adopt the model with fixed effect. For better results, we can fix our analysis on another statistical perspective that of the corrections of errors with predicted signs. We must check the absence of bias related to economic measurements by trying to correct them if they exist.

In this setting, we apply the test of Breusch-Pagen to test the problem of hetroscedasticity. In term of analysis, the probability of Fisher implies that the two empirical models endure the problem of hetroscedasticity. This problem is also confirmed by the high level of R^2 which is about (0.4174) and (0.5539) for the two respective models (1) and (2). The method of GLS (General Least Square) seems the most suitable solution to correct some problem concerning the fixed and random effect model. From this estimate, we note an improvement at the level of the significance of the variables.

The second problem is the multicolinearity which is present when the explanatory variables are significantly correlated between them. To justify the absence of this relation between these variables, we proceeded by the evaluation of the VIF (Variance Inflation Factor): VIF = 1 / (1 - R^2) and tolerance = 1 / VIF. More the value of VIF is large, more the variable becomes collinear. So VIF exceeds 1 (VIF > 10) then this variable will be considered as greatly collinear. According to the calculations carried out, all variables of the model didn't reach 5 (the average of VIF is 2.12). Therefore, the model in its totality doesn't suffer from a problem of multicolinearity. In a more explicit way, The VIF of the variables constituting the CEO power doesn't exceed 2, which confirms the absence of muticolinearity. Concerning the variables of control, the only variable which varies between 4 and 5 is the seniority but it doesn't present a serious problem of colinearity. Besides, we calculated the coefficient of correlation of Pearson presented in the matrix of correlation. According to these coefficients, we note there is not a strong relation between variables and then we confirm the absence of mutlicolinearity in accordance with the results of VIF.

Table 2. Results of evaluation of the MTB model with correction of errors

Variables	Previous Signs	coefficients	t	Signification (P>t)	VIF	1 /VIF
Constant		0.8279158	1.71	0.087*		
i Auc $_{it}$	(+)/(-)	-0.2535872	-0.59	0.555	1.28	0.779296
i Fond $_{it}$	(+)	0.4744521	2.12	0.034**	2.08	0.480361
i con $_{it}$	(+)	-0.0400835	-0.24	0.812	.25	0.802044
NIVEID $_{it}$	(+)	-0.0485253	-0.39	0.699	1.56	0.639320
EXPD $_{it}$	(+)/(-)	0.3301389	0.62	0.537	1.16	0.862063
ANCD $_{it}$	(+)	-0.0221763	-0.70	0.485	4.36	0.229555
AGED $_{it}$	(+)/(-)	0.00507	-0.39	0.789	3.12	0.320047
R^2= 0.0237 ; Wald Chi2 (7)= 3925.34 ; Prob>Chi2 = 0.0000 ;Average VIF = 2.12						

*, **, *** significance level respectively of 10%, 5%, 1%.

The table above shows that results of regression between the financial performance (MTB) and the CEO power are significant to a level of 96% with Wald Chi2 rinsing to (3925.34).

Coefficients of indicatory variables constituting the index are in accordance with our assumptions (6.1) and (6.2). We notice that the variable (i fond) is the only significant variable to the level of 96% but of contrary signs to (i auc); positive and negative respectively. The signs of these variables are approved by the literature. Contrary, the variable (i con) is negative and no significant. The coefficient of this variable contradicts the hypothesis (6.3). For the first measure of managerial power, when another internal administrator other than the CEO seats on the board, he becomes participant in the decision making. For this reason, Adams, Almeida and Ferreira (2004) consider that the CEO in the presence of other internal administrators in the board detains a weak part of power. Concerning the second measure, the founder CEO is always favoured since he detains the power. Whereas for the third measure, the literatures gives out that the manager who is at the same time president of the board and the firm has an important role in the decision making. The drawn conclusion of the literature, for this last measure, does not coincide with results approved in this study. We can note that managerial index has a positive coefficient but not significant statistically. It implies that the Tunisian CEO acquire their power through the title of founder when it doesn't exist any internal administrators in the board another than the CEO. Although this CEO doesn't detain the duality title, this power comes to improve the financial performance of the firm. The global result is conforming with our discounted results and with those shown by Adams and al., (2004). By referring to the theory of the agency, the reinforcement of the COE power favours its rooting. In this case, the power has a negative effect on the performance of the firm. Contrary to our hypothesis (3), the level of instruction of the CEO has a negative impact and no significance on the performance of the firm. This result is not coherent with the previous studies. This allows the leader to attach more importance to the activities of the firm in order to reach positions of force granting him with more power. To this consideration, Gotteman and Movey (2005) predict the importance of the level of instruction of the CEO. On the one hand, results of our survey reveal that the CEO experience acts positively on the financial performance of the Tunisian enterprises. What corroborates with results of Gosh and Moon (2005). This latter announces that the high part of the power is assigned to the CEO the more talented and most experienced to encourage a better performance of the firm. On the other hand, it appears that the CEO age doesn't affect the performance of the firm and doesn't exercise a significant influence. This result validates the assumption (2). In a more explicit way, the old CEO doesn't accept the new idea integration and stay inflexible to the new techniques that the firm need to contract. Results of Musteen, Baker and Baetens (2005) agree to this alternative. We point out that the age group of managers, tending towards the retirement age, affects negatively the performance of the Tunisian firms of our sample.

Table 3. Results of evaluation of the ROA model with correction of errors

variables	Previous Signs	coefficients	t	Signification (P>t)	VIF	1 /VIF
constant		0.0673749	0.03	0.973		
i Auc $_{it}$	(+)/(-)	0.9469486	2.49	0.013***	1.28	0.779296
i Fond $_{it}$	(+)	-1.20411	-2.20	0.028**	2.08	0.480361
i con $_{it}$	(+)	0.4818373	1.37	0.172	1.25	0.802044
NIVID $_{it}$	(+)	1.879567	2.10	0.036**	1.56	0.639320
EXPD $_{it}$	(+)/(-)	-6.463972	-1.82	0.069*	1.16	0.862063
ANCD $_{it}$	(+)	0.0716454	1.97	0.049**	4.36	0.229555
AGED $_{it}$	(+)/(-)	0.0831897	2.47	0.014***	3.12	0.320047
R^2 = 0.1527; Wald Chi2 (7)= 583.64; Prob>Chi2 = 0.0000; Average VIF= 2.12						

*, **, *** significance level respectively of 10%, 5%, 1%.

The table above shows that results of regression, between accounting performance (ROA) and CEO power, are meaningful with Wald Chi2 rising to (583.64). The two variables (i auc) and (i con) constituting the index of power are determinants. However their coefficients release the same signs expected following our assumptions. Only the indicating variable (i fond) does not confirm our forecasts. Although, the coefficient of this variable is significant. Results show that the absence of other internal administrators is the most meaningful variable affecting the performance of the firm. We can conclude that the index of the power acts positively on the accounting performance of the Tunisian firms. In other terms, COE holding power is constrained to improve the performance of the firm to which he belongs. Moreover, the high level of performance released by the firm becomes in favour of the CEO. This latter can, consequently, reinforce its position within the firm. According to our estimations, the level of instruction of CEO is related significantly and positively to accounting performance (ROA) of the firm. It is not the case with the financial performance (MTB) analyzed previously. Indeed, the result announcing the presence of positive relation supports those of Gottesman and Morey (2005).

With regard to the CEO age, results are not conclusive as for the negative association with the performance of the firm. The coefficient of this variable is significant and positive. It leads us to adopt the assumption (2). This assumption announces that more the COE advances in the age, more the link with the performance becomes positive when he adopts a risky behaviour. This result has been proven by several authors as McCelland and Baker (2004) and Rajgopal and Zhang (2005). According to these authors, the CEO adopting a risky behaviour and encouraging the opening to the change improves the performance of the firm. As regards the experience of CEO, results indicate that this variable plays an inefficient role on the determination of high level of performance. Thus, we adopt the hypothesis that indicates a similar effect between managerial experience and the firm performance. On the other hand, the CEO seniority is an element that amplifies the performance of the firm. Indeed, more the CEO becomes an old partner in the firm more the performance of the firm rises. For this reason, the Tunisian firms prefer to preserve their old CEO in order to arrive to a better profitability. To keep them, The Tunisian firm is constrained to motivate the managers and to regenerate a better remuneration.

3. Synthesis of results

The following table synthesizes all the estimates released before with predicted and observed signs as well as their significances for the two performance types of MTB and ROA.

Table 4. Table of synthesis (MTB) and (ROA)

Theory	Variables	Previous Signs	Results of MTB (sign and significance)	Results of ROA (sign and significance)
Index of power	i_{1con} : concentration of titles	(+)	(-) and no significative	(+) and no significative
	$i_{2\ fond}$: founder of the firm	(+)	(+) and significative to 96%	(-) and significative to 97%
	$i_{3\ auc}$: no other intern administrator on the council other than the CEO	(+) / (-)	(-) and no significative	(-) and significative to 98%
CEO characteristics	Seniority	(+)	(-) and no significative	(+) and significative to 95%
	Age	(+) / (-)	(+) and no significative	(-) and significative to 98%
	Gender	(-)	-	-
	Instruction level	(+)	(-) and no significative	(+) and significative to 96%
	Experience	(+) / (-)	(+) and no significative	(-) and significative to 93%

V. Conclusion

The objective of this survey consists in determining the impact of managerial power and the CEO personal characteristics on the performance of the Tunisian firms. Based on the theoretical explanations, the two approaches have been explored in this framework. The first approach concerns the CEO specificity that includes competences, capacity and managerial characteristics. These characteristics are discerned by the CEO sociological, personal and professional aspects. The second approach explains the relation between the power of the CEO and the performance of the firm. It is considered complementary to the first one because the COE power is only translated through these characteristics. According to these theoretical foundations, we elaborated assumptions related to the nature of relations and associations that exists in the study. To test the validity of our theoretical assumptions, we developed two empirical models in the form of regressions applied to a sample of 32 Tunisian companies for a period of 6 years (2000 - 2005). These models change structure according to the nature of performance. The results of this empirical analysis reveal that the CEO power acts of two manners. For the financial performance, the relation is positive and significant. For the accounting performance, the relation is positive but not significant. This positive association increases when the characteristics of the manager constitute an integral part in the management power. In order to better test the models and to get the best results, these characteristics are inserted under shape of additional or control variables. These results approve the suggestions underlined notably by Adams, Almeida and Ferreira (2004) and Dowell, Shackell and Stuart (2005), according to them, the CEO power is formulated form the duality, the concentration of titles and the position of founder of the firm. More specifically, the performance of the firm progresses only in presence of managerial human resources (Cosh, Fu, House and Huges, 2006). Our study does not exclude the presence of some limits. Indeed, the specific characteristics integration as explanatory variables in the empirical model raises some difficulties of approximation. It rather concerns the variables that express the CEO sociology depending on his future vision of problems or his choice of stability if he is father of family.

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Annex 1. Correlations

		ROA	MTB	i_aucun	i_fondat	i_con	ancd	aged	nved	genr	expd
ROA	Pearson Correlation	1	-,008	-,028	-,138	,086	-,019	,053	,155*	.(a)	-,306**
	Sig. (2-tailed)		,913	,703	,057	,234	,797	,464	,032	.	,000
	N	192	192	192	192	192	192	192	192	192	192
MTB	Pearson Correlation	-,008	1	-,076	,120	,017	,042	,026	-,048	.(a)	,043
	Sig. (2-tailed)	,913		,295	,098	,813	,560	,718	,512	.	,558
	N	192	192	192	192	192	192	192	192	192	192
i_aucun	Pearson Correlation	-,028	-,076	1	-,191**	-,143*	-,303**	-,327**	,143*	.(a)	,258**
	Sig. (2-tailed)	,703	,295		,008	,048	,000	,000	,048	.	,000
	N	192	192	192	192	192	192	192	192	192	192
i_fondat	Pearson Correlation	-,138	,120	-,191**	1	,073	,610**	,258**	-,393**	.(a)	,110
	Sig. (2-tailed)	,057	,098	,008		,316	,000	,000	,000	.	,128
	N	192	192	192	192	192	192	192	192	192	192
i_con de	Pearson Correlation	,086	,017	-,143*	,073	1	-,093	,123	,056	.(a)	-,120
	Sig. (2-tailed)	,234	,813	,048	,316		,199	,090	,444	.	,096
	N	192	192	192	192	192	192	192	192	192	192
ancd	Pearson Correlation	-,019	,042	-,303**	,610**	-,093	1	,731**	-,559**	.(a)	,103
	Sig. (2-tailed)	,797	,560	,000	,000	,199		,000	,000	.	,154
	N	192	192	192	192	192	192	192	192	192	192
aged	Pearson Correlation	,053	,026	-,327**	,258**	,123	,731**	1	-,510**	.(a)	,107
	Sig. (2-tailed)	,464	,718	,000	,000	,090	,000		,000	.	,139
	N	192	192	192	192	192	192	192	192	192	192
nved	Pearson Correlation	,155*	-,048	,143*	-,393**	,056	-,559**	-,510**	1	.(a)	-,120
	Sig. (2-tailed)	,032	,512	,048	,000	,444	,000	,000		.	,096
	N	192	192	192	192	192	192	192	192	192	192
genr	Pearson Correlation	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)
	Sig. (2-tailed)	.	.	.	.	.	.	.	.		.
	N	192	192	192	192	192	192	192	192	192	192
expd	Pearson Correlation	-,306**	,043	,258**	,110	-,120	,103	,107	-,120	.(a)	1
	Sig. (2-tailed)	,000	,558	,000	,128	,096	,154	,139	,096	.	
	N	192	192	192	192	192	192	192	192	192	192

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
a Cannot be computed because at least one of the variables is constant.