

## EMOTIONAL INTELLIGENCE IN EXECUTIVE LEADERSHIP: IMPLICATIONS FOR BOARD PERFORMANCE

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**Abstract:** This article deals with the relationship existing between the emotional aspect and decision-making processes. More specifically, it examines the links between emotional intelligence, decision biases and effectiveness of the governance mechanisms. The primary purposes of this article are to: consider emotional intelligence like new research ideas that make important contributions to society; offer suggestions for improving manuscripts submitted to the journal; and discuss methods for enhancing the validity of inferences made from research.

The article explains that the main cause of organization's problems is CEO emotional intelligence level. I will use three models (linear regression and logistic binary regression) to examine this correlation: each model treats the relationship between emotional intelligence and one of efficiency criteria of the board. Emotional intelligence has been measured according to the Schutte self-report emotional intelligence scale with a high internal validity level. Regarding the four cognitive biases, they have been measured by means of a questionnaire comprising several items. As for the selected sample, it comprises of some one hundred and eighty Tunisian executives, belonging to sixty firms.

Our results have revealed that the presence of a high emotional intelligence rate is not always positively correlated with the executives' suggestibility with respect to behavioral biases. They have also affirmed the existence of a complementarity relationship between emotional intelligence and the board of directors.

**Keywords:** Emotional intelligence, Cognitive bias, corporate governance, Board of directors.

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### Introduction

The governance theories have evolved substantially, undressing a shift from create modelling, primarily based on the financial model, into more complex and, presumably, more realistic and pragmatic models involving the whole set of stakeholders, playing a great deal of importance on the productive capacity aspect as much as on the allocation aspect (Jensen & Meckling, 1976; Shleifer & Vishny, 1997; Zingales, 1998; Rajan & Zingales, 1998; Blair & Stout, 1999; Laporta et al., 2000).

This development, guided and inspired by the evolution in firm related theories have made of the human capital and the human resources management the focal point of the governance concerns. Indeed, the value creation process has been the major subject matter of the corporate governance theories. Each approach (whether cognitive or disciplinary) has initiated a process phase in order to reduce the conflicts of interests, problems of wealth/profit distribution and cognitive conflicts. Despite these approaches, contribution in matters of governance, diverse aspects of the governance system have still remained misunderstood or not even perceived, hence there is the need to integrate the behavioural dimension within the governance approaches. In this respect, sheffrin (2001) has stated that the introduction of a behavioural dimension leads to an approximation of finance and governance

convergence with the other management sciences, which may help mutual complementary overlapping and intermingling.

Noteworthy, our idea has been inspired by the behavioural approach and aims at highlighting the emotional intelligence role in minimizing the behavioural biases and improving governance mechanisms efficiency including the directors' board. Certain literary works and elements pertaining to emotional intelligence and work performance likely provide and supply us with relevant clues and hints to support and sustain our intuition and line of work serving as a basis background for our research.

### **Literature Review and Hypothesis**

The analysis elaborated by Fama (1980), Fama and Jensen (1983),

Zahra and Pearce (1989), Yermack (1996), Eisenberg et al. (1998) Cui and Mak (2002), Carapeto et al. (2005), Adams et al. (2009) has shown that the board of directors is characterized by several closely-related attributes. Among these attributes, one can distinguish board's composition with respect its size, to the subdivision into internal and external managers and to the representation of the concerned relevant parties or "stakeholders" among are, namely, the employees, the creditors, the institutional bodies, the customers, the suppliers, etc.

In addition to presenting the governance mechanism attributes, the contractual theories have dealt with initiating the notion of this board's efficiency: The agency theory has demonstrated that to tackle the council effectiveness is conditional upon the controller's skill and motivation. The theory of the leaders' implantation represents a third condition namely the independence with regards to the leader (Shleifer & Vishny, 1997; Denis & McConnell, 2003; Gillan, 2006; Bulan et al., 2009). Hence, in this section, the central objective consists of highlighting the type of relationship existing between emotional intelligence and the board of director's efficiency.

### **Loss Aversion, Emotional Intelligence and Board of Director's Efficiency**

The available literature enables us to affirm that emotional intelligence plays a crucial role in the subordinates' perception of the leader's efficiency (George, 2000). More exactly, most of concerned studies have shown that a well emotionally intelligent leader having higher emotional intelligence is an effective one.

This achieved result, pertaining to the field of management, affirms the observation of Greenfield (2002) regarding the difficulty met by the internal administrators. Blair et al. (2000), postulate that these administrators cannot behave against the interests of their leader or their superiors. The inability to oppose the leader's taken decisions can be explained by the awareness of his "internal" controllers regarding these decisions efficiency. Although emotional intelligence has reduced the aversion loss in the controller's perception and mind as well in the manager's suggestible decisions regarding this type of bias, it appears to be a hindrance to the director's board effectiveness as a controlling organ. In their proposed model, Mayer and Salovey (1997) have estimated that emotional intelligence plays an important role not only in regulating and controlling emotions but also in developing intellectual and cognitive processes (Lopes et al. , 2005; Song et al., 2010). The absence of this skill implies an uncertainty, which, according to Anderson (1983), may lead to aversion complaining the individual, "the controller", to apply a conservative trend and refuse any decision (Trautmann et al., 2009; Vieider, 2009) likely to alter his current status (improving of his role as he is forced to oppose any decision taken by the managing team). However, an emotionally intelligent controller, eager to reduce his losses has to take mediating stand to arbitrate between the acquired advantages by his participation in director's boards and the efficiency of his control. Hence, he is likely to lose a lot by opposing the leaders' decisions (Petrides et al., 2007; Siu, 2009)

It can be noted, that emotional intelligence, as being the controller's exclusive individual capacity, would enable him to minimize the sensation of aversion risk and ensure the control efficiency. By contrast, according to the implanting theory this vision is erroneous. Indeed, agents can enjoy particular skills (such as emotional intelligence) to acquire and interpret information about the company, its environment and its actors (essentially the leader). However, a great deal of information can never be handled and remains at the leader's exclusive disposal. In this case, emotional intelligence would reduce the controller's uncertainty as regards the quality of information being at his disposal. It can be considered as a skill competence which may facilitate the leader's implantation and reassesses the efficiency of control exerted by the administrators. In this respect the following hypothesis seems worth proposing:

**H1:** the more the aversion loss decreases (high level of emotional intelligence), the more the board's control would be effective.

### **Optimism, Emotional Intelligence and Board of Director's Efficiency**

The probability that optimism may prevail and win over made the administrators challenge the director's board disciplinary power and put it into question (Shleifer and Vishny, 1988). Thus, the firm partners' optimism implies an unlimited discretionally space for the leader and, causes disparities in the distribution of created value.

Gervais et al. (2003) have even shown that the leaders' delivered stock-options, aimed at reducing the agency problems, would encourage them to take even greater risks which contradict the shareholders' interests. As an illustration on facing an acquisition plan, and owing to his optimism, the leader can overestimate the synergies along with the target (Goel & Thakor, 2008; Campbell et al., 2011). This error of valuation will not necessarily be corrected by the board of directors or by the investors who are themselves victims of a bias of optimism (Rajan & Zingales, 2003).

Bhagat and Black (2000) have stressed the role of the wage-earning managers in minimizing the optimism bias and thereof improving, the functioning of the governance mechanisms, namely including the board of directors. Another possible resolution likely to minimize optimism bias in the development of emotional competences includes emotional intelligence. The latter in fact, transmits an individual capacity to manage his proper emotions as well as the others' (Côté et al., 2006; Côté et al., 2010), and particularly to apply them in a way that reinforces the effectiveness of cognitive processes (Goleman, 2001). In other words, emotional intelligence allows every individual – whether leader, manager or controller – to be aware of his firm's strengths, and weaknesses as well as the competence of the leading team which is likely to reduce the degree of his optimism. Zeidner et al. (2004) have shown the positive role that emotional intelligence could play in reducing the amount of optimism bias among executives. Therefore, one might well notice that according to these studies, there exists a positive impact of emotional intelligence on improving the directors' board functioning. Hence, the following hypothesis appears worth stating:

**H2:** The more optimism diminishes, the more the control exerted by the director's board is efficient.

### **Overconfidence, Emotional Intelligence and Board of Director's Efficiency**

Ben-David et al. (2006) have postulated that an extreme appeal to confidence mechanisms is likely to result in the loss of effectiveness. In fact, being over-confident of his capacities and personal competences, the leader will be encouraged to undertake a rooting policy and manipulate information in such a way as to preserve his investment

in a certain specific capital (Lo et al., 2007). This information manipulation hinders the functioning of the governance mechanisms including that of the board of directors.

By means of illustration, confidence excess would certainly encourage the leader to overestimate his proper projects, (Baker et al., 2004). Moreover, and according to Duhaime and Schwenk (1983), the leader tends to believe that he has a control over the investment plans or over other elements on which he has no impact. Still, some analysts consider that this bias can have some advantageous effects. Le Blanc and Rachlinski (2005) have noticed that, by increasing the number of transactions, the over-confidence bias among investors may lead to a better revelation of information along with higher market liquidity. In tow, Elster (1998) has postulated that emotions can correct the indeterminations resulting by indecisions of the calculation reasoning. In other words, emotions, particularly emotional intelligence, tend to guide the individual towards rationality relevance (Mayer et al., 2008). Data dominantly suggested that individuals endowed with a high level of emotional intelligence would be more aware of the influencing factors affecting their positive and negative emotions (Rode et al., 2007; Karim, 2010). Actually awareness and understanding of these emotion-triggering factors would allow the managers to select the moor appropriate actions and improve the directors' board effectiveness as a governance mechanism. As for Damasio (1994), emotional intelligence improves the decisions quality as well as the ability of adaptation by allowing the harmonization of the different cognitive processes. It is even regarded by some writers as an essentially crucial motor of organizational performance (Goleman et al., 2001)

As a matter of fact, emotional intelligence allows every individual to develop an emotional consciousness whirly to react to different situations. It would help the manager to better recognize himself – by reducing overconfidence – and safeguard his motivation to achieve his projects. It is, therefore, important to evaluate the following hypothesis:

**H3:** The more the confidence excess decreases, the more the directors' board control is effective.

### **Cognitive Flexibility, Emotional Intelligence and Board of Director's Efficiency**

Recently elaborated reflections and thoughts pertaining to the administrators' role as set up by Jensen and Fuller (2003) and Jensen and Murphy (2004) have recommended a drastic reform of the managers' role in such a way that they can guarantee, on the one hand the fairness, honesty and integrity of all the organization members, and on the other hand, honesty plays an intermediary role between the leaders and the financial markets so that the latter would better understand the possible outcomes impacts and consequences of the strategic choices and alternatives or the company's value. The managers would, then, perform under the responsibility of guiding the leaders' decisions. This new role actually requires a cognitive flexibility and an ability of adaptation to changes. This adaptation capacity necessitates a high level of emotional intelligence. Indeed, Huy (2002) has shown that only a double condition can implement radical changes, namely: 1. The projects of change arouse an emotional support among a certain number of managers, 2. The managers are aware of listening to their subordinates' emotional feelings and responses. Hence, an emotionally intelligent administrator is capable of having a wide and open field of vision, a synthetic view large enough to globally understand a certain situation (Mayer et al., 2008). This would, in effect, improve the evaluation of the leaders' performance and ensure control efficiency.

In this respect, Sentis (2001) has demonstrated that managers having a discretionary margin would seek tools, including the re-evaluation of assets, enabling them to give a good image for their firms, thus increasing their

payment and ensuring their job stability. Consequently the leader's cognitive flexibility is negatively correlated with the directors' board efficiency target. For these reasons, the aim of appointing outside directors lies in providing the board with certain skills – cognitive flexibility due to a high emotional intelligence – and an objective judgement to build a supervisory element and to make sure that the leaders' performance meets the usual standards (Pathan & Skully, 2010). This role cannot by any means be assumed by executive directors too involved in management. Actually, the outside directors often bring a fresh and an impartial point of view since they would thoroughly examine the problems from an external perspective. In addition, they provide specific answers to certain questions and then may be sources of contact. Indeed several studies have pointed out that it is economically advantageous to hire people in respect to their emotional intelligence (Gendron, 2005). The positive impact of emotional intelligence on improving cognitive flexibility and the adaptation ability to shifts of administrators have led us to propose the following hypothesis:

**H4:** The higher cognitive flexibility is (high level of emotional intelligence), the more effective is the executive's control by the board of directors.

### **Methodology**

This section is divided into two subsections, the first of which is devoted to discuss the data source, and sample formation, while Section 2 discusses our variable measurement.

### **Data Sample Selection**

To note, the empirical tests are based on sixty non-financial Tunisian firms during the 2007 fiscal year and twenty eight are listed companies and thirty two are non-listed companies (Table 1). All financial firms including banks owe to the fact that this business sector is regulated and likely to have fundamentally different cash flows and characteristics. Firms with insufficient data regarding emotional intelligence and the board of director's composition are also excluded. The board's compositions as well as financial characteristics data are gathered from the BVMT annual report.

**Table 1: Visited Companies**

Initial BVMT sample for 2007	50
financial firms	(22)
Other non-financial firms	80
Insufficient data of emotional intelligence	(40)
Insufficient data of board of directors' compositions	(8)
Final sample	60

Emotional intelligence and psychological characteristics are collected by means of an administered questionnaire. Actually, the selected choice deals with some homogeneous individuals representing some Tunisian CEO Representatives of sixty firms (100 males, 75 females, 5 unreported), ranging in age from 25 to 58 (Table 2). Most questionnaires have been distributed by the method of door to door to ensure they are personally delivered to the concerned person; few among them have been mailed, for businesses located outside the Greater Tunis area.

It is worth noting, however, if a broader sample had been envisaged



to be studied and that more than one hundred eighty questionnaires had been distributed for this purpose, we have would have received far fewer responses than expected (return rate = 50.42%). Although the number of distributed questionnaires reached three hundred fifty seven, the responses received did not exceed one hundred and eighty. Indeed, a many of them have refused to respond to our questions on the ground of several reasons, namely, that: They are too busy and have no time to devote to research;

They generally do not pay any interest to the questionnaires submitted by students and would return them to their assistants or other staff for a response (this has been the case of our officercentred research);

They perceive that the questionnaire is a sort of "control" damage to their private lives that it is out of question to answer.

Other encountered difficulties are mainly due to the administrative procedures and hierarchical procedures which linger questionnaires to the recoveries. Fortunately, the leaders who had been kind to cooperate and help us formulate and set up our sample eventually composed of one hundred and eighty private company leaders belonging mostly to the industrial sector.

**Table 2: CEOs' Characteristics**

		N	Percentages
<b>Age</b>	25-30 years	41	22.77
	31-40 years	75	41.66
	40-49 years	39	21.66
	Over 50 years	25	13.88
<b>Gender/Sex</b>	Males females	100	55.55
	unreported	75	41.66
		5	2.77
<b>Degree</b>	Baccalaureate	20	11.11
	Bac+2	35	19.44
	Bac+4	80	44.44
	DAS/HDSS	45	25.00

### **Variables Measurement**

The objective of this section is to determine the variables measurement (endogenous and exogenous).

### **Measuring the Board of Directors' Characteristics and Efficiency**

To note, theories regarding the board of directors, along with prior empirical researches and various recommendations have suggested that some board characteristics have an influence on the quality of the financial report and on firms' performance. Three major board characteristics are examined here: size, independence and presence of CEO duality (Fama & Jensen, 1983).

#### **Board size**

Noteworthy, the board's effectiveness highly depends on the number of directors and its size. Relevant literature provides no consensus about the direct relationship between the board size and effectiveness. On the one hand, a larger board is less likely to operate effectively and is easier for the CEO to control (Jensen, 1993; Khediri, 2006).

On the other hand, Yermak (1996) considers that the board size is a factor among a range of variables that might influence executive compensation and company performance.

In this study the directors' board size (BSIZE) has simply been measured by the number of its members (Dechow et al., 1996; Yermak, 1996; Peasnell et al., 1998; Coulton et al., 2001; Chtourou, 2001).

The board's independence

The different characteristics pertaining to the board's independence are measured by the following variable: BIND is defined as the percentage of the board members who are simultaneously independent and non-executives which is equal to the number of outside directors divided by the total board members (Chtourou et al., 2001; Wright, 1996; Forker, 1992; Haniffa & Cooke, 2000 ).  $BIND = \text{number of outside directors} / \text{total board members}$ .

CEO duality

Board chairs role consists in monitoring the CEO (Jensen, 1993).

The latter supposes that CEOs who also hold the position of board chair (Duality) exert an undue influence on the board, compromising the strength of the board's governance.

The board chairs characteristics are defined by  $DUAL = 1$  if the CEO also owns a board chair and 0 otherwise.

Table 3 presents the characteristics of boards of directors of the sixty Tunisian companies included in our study.

Tunisian companies are run by independent boards, medium (seven directors) and not dominated by CEOs.

**Table 3: Board of Directors' Characteristics**

variable	Mean	std	Min	Max	N
Entire board	7.60	2.56	4	12	60
Outside directors	2.62	1.11	1	4	60
Affiliated directors	1.98	0.80	1	3	60
Inside directors	3.360	1.34	1	5	60
CEO Duality	0.26	0.44	0	1	60

### **The Emotional Intelligence Measure: SSREI TEST**

In this search, we have generated a pool of eighteen items (Table4) derived from schutte et al. (1998) SSREI test, based on the theoretical model of emotional intelligence as developed by Salovey and Mayer (1990). Each item selected for the initial eighteen-item pool should reflect an adaptive tendency toward emotional intelligence within the model framework. Respondents have used a 5-point scale, on which the figure "1" represents "strongly disagree" and "5" represents "strongly agree," to indicate to what extent each item described fits them. All parts of the model have been represented by numerous items. Each of the first four authors has independently evaluated each item for fidelity to the relevant construct, clarity and readability. Noteworthy, some items have been deleted while some others have been added or revised before pilot testing them by asking several individuals to complete the scale and note any unclear elements. This process has eventually resulted in a pilot-tested pool of eighteen items.

**Table 4: Applied Items in the modified eighteen -item emotional intelligence scale**

<b>FACTOR1: FACTOR2: FACTOR3:</b>
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assessing others personal Items	evaluating her Problems solving: emotions:	emotions use in emotions: 5,610%
39.976%	6.265%	OF TOTAL OF TOTAL VARIANCE VARIANCE VARIANCE
1. I am aware and able to interpret or	0.702	decipher of the non-verbal messages other people send.
2. I can tell people's feelings through	0.682	the tone of their voice.
3. I can understand others' feelings by	0.672	just looking at them.
4. Most of the major remarkable events of	0.646	my life have led me to re-evaluate what is important and what is not.
5. I know when the right moment is to	0.622	speak about my personal problems to others.
6. When facing obstacles, I remember	0.584	0.512 times when I faced similar obstacles and overcame them.
7. I am aware of my emotions as I	0.721	experience them.
8. When I feel a change in emotions, I	0.700	tend to come up with new ideas.
9. When I am in a good mood, solving	0.647	problems is easy for me.
10. I use good moods and sense of	0.627	humor to help face obstacles.
11. I can easily recognize my emotions as	0.516	I experience them.
12. I motivate myself by expecting	0.656	potentially positive.
13. I seek out activities that would	0.599	make my life happy.
14. I expect that I will do well on most	0.573	things I attempts or set for.
15. Emotions are listing among other	0.573	things that make my life worth living.
16. When my mood changes I foresee or	0.528	expect some new possibilities.
17. When I experience a positive emotion,	0.499	I would know how to make it last.
18. I make appreciable arrangement of	0.447	the events which others enjoy .

### Emotional Biases Measure

The second part of our questionnaire, fourteen items, (Table 5) focuses on evaluating and scoring the four emotional biases (optimism, overconfidence, risk aversion and cognitive flexibility). The questions have been inspired from the questionnaires formulated by Fern Hill society and Industrial Alliance companies.



**Table 5: Items used in the emotional biases scale (14 items)**

Items	FACTOR loss aversion 50.710% TOTAL VARIANCE	1: FACTOR optimism OF 29.450% TOTAL VARINACE	2: FACTOR 3: overconfidence OF 10.275% TOTAL VARINACE	FACTOR 4: cognitive flexibility 5.385 % OF TOTAL VARINACE
1. What is your propensity to take financial risks with respect to others?	0.802			
2. With a great financial decision, what do you care about more: possible losses or possible gains?	0.742			
3. Insurance can protect us against a wide variety of risks: theft, fire, accidents, illness and death.... How many insurance subscriptions have you subscribed to?	0.713			
4. When you think of the word "risk" in a financial context, what term in the following list first comes to mind?	0.686			
5. When I'm faced with a challenge, I give up because I'm afraid of failure.	0.600			
6. What emotional effect do important decisions		0.857		

have on you once they are taken?	
7. I am motivated by imagining the successful decision positive results of entrepreneurial tasks.	0.851
8. Do you consider that some degree of uncertainty is in the business environment?	0.842
9. I know how to most control my emotions.	0.774
10. For how long do you reckon to keep your position in your firm?	0.715
11. How confident are you in your ability to take good financial decisions?	0.641
12. How easily do you adapt yourself to deterioration of your financial situation?	0.862
13. your reaction regarding changes in your firm environment is:	0.862
14. in a job search would you rather seek:	0.789

### **Control Variables**

Several researches have suggested a significant association between the board of director's efficiency, leverage ratios (LEV) and firm size (LNSIZE) (Ball & Foster, 1982; Dechow et al., 1996; Klein, 2002). Hence, both leverage ratios and firm size have been included as control variables in the present study.

Leverage ratios or financial distress costs

Financial distress can be defined as "the situation in which firms anticipated cash flow cannot cover its debts" (Leland, 1998).

However, financial distress could engender costs that may have negative impact on the company value, such as the cost of failure – loss of brand image and competitiveness for the company. Actually, it is due to this reasons the agency theory considers debt as a means to discipline the officer and, subsequently, facilitates the task of governance mechanisms. So, the higher the debt ratio is, the higher the cost of financial distress is and the more

the partners are involved in controlling their leaders. In fact, the leverage ratio is going to be essentially retained as a measure of this variable. Leverage (LEV) is defined as the ratio of total debts to total debts plus total assets.

#### Firms size

As noted by Ball and Foster (1982), the size has been applied to represent a large number of amounts and quantities such as the firm's competitive advantage and the management team capacity (Becker et al., 1998). So the size can be conceded as an indicator of the effectiveness of governance mechanisms. Hence, the size has been introduced as control variable in this research.

Indeed, most studies have applied total assets or turnovers as a measure for firm size (Bujadi & Richardson, 1997). In this paper, it is measured through the log of the firm's total assets (LNSIZE).

For simplification purposes, the summary of each variable extent range in the model, its name as well as its expected impact on the effectiveness of the board are depicted in the following table:

**Table 6: Variables Descriptions**

Class:	Phenomena:	Measure:	Variables:	Predictions:
Endogens variables:				
Board of directors	Board implication in the decision	Number of its members	B SIZE	
	The presence of independent members in the board	Number of outside directors /total board members.	B IND	
	CEO also owns the board's chair	1 if the CEO also owns the board's chair and 0 otherwise.	D UAL	
Exogenous variables:				
Emotional intelligence	Perception and	Score obtained by	IE	+

	administration emotions	33 items from (Schutte et al., 1998)		
<b>Lost aversion</b>	Loss rumination and reputation	The questionnaire obtained score	<b>LAV</b>	-
<b>Optimism</b>	Directors overestimate capacity of their firms	The questionnaire obtained score	<b>OP</b>	-
<b>overconfidence</b>	Directors overestimate their personal competences	The questionnaire obtained score	<b>OVER</b>	-
<b>Cognitive flexibility</b>	Reaction to a new information	The questionnaire obtained score	<b>CF</b>	+
<b>Controls variable s</b>				
<b>Leverage ratios</b>	CEO controlled	Leverage ratios = total debts /(total debts +total assets)	<b>LEV</b>	+
<b>Firms size</b>	Firms signaled performance	Ln (total assets)	<b>LNSIZE</b>	+

#### **Empirical model**

$$Y = \beta_1 + \beta_2 IE + \beta_3 LAV + \beta_4 OP + \beta_5 OVER + \beta_6 CF + \beta_7 LEV + \beta_8 LNSIZE + \epsilon$$

**Where:**

**Y:** the board of directors' efficiency.

**IE:** measure index of emotional intelligence.

**LAV:** the score of loss aversion.

**OP:** the score of optimism.

**OVER:** the score of overconfidence.

**CF:** the score of cognitive flexibility.

**LEV:** Leverage ratio.

**LNSIZE:** firm's size.

: the error.

Table 7 presents variables descriptive statistics of our model. Tunisian companies are characterized by an average debt level, a medium size, and presence of behavioral biases, an acceptable level of emotional intelligence and an independent director's board.

**Table 7: Summary Statistics**

variable	Mean	std	Min	Max	N
board size (BSIZE)	7.60	2.56	4	12	60
Board independence (BIND)	0.40	0.20	0.1	0.8	60
CEO duality (DUAL)	0.26	0.44	0	1	60
Emotional intelligence (IE)	50.50	19.86	18	90	60
Loss aversion (LAV)	10.56	4.73	4	20	60
Optimism (OP)	11.64	4.27	4	20	60
Overconfidence (OVER)	9.49	3.806	3	15	60
Cognitive flexibility (CF)	8.91	3.92	3	15	60
Leverage ratios (LEV)	0.50	0.27	0,1	1	60
Firms size (LNSIZE)	9.04	3.35	2.85	15.4	60

## Empirical results

This paper examines the relationship between the board characteristics and emotional intelligence. I will use three models to examine this relation: Every model treats the relationship between emotional intelligence and one of the efficiency criteria of the board. Later, I will describe different tests which are realized.

### Board Efficiency and Size

The model would be as follows

$$BSIZE = \alpha_0 + \alpha_1 IE + \alpha_2 LAV + \alpha_3 OP + \alpha_4 OVER + \alpha_5 CF + \alpha_6 LEV + \alpha_7 LNSIZE + \epsilon$$

**BSIZE:** the board size explains and indicates the board's implication in the decision making.

### Empirical tests

To estimate the model's parameters, the linear regression method has been applied: The objective behind this model is to describe the relationship between the board's implication in decision making and emotional variables (IE and emotional bias).

### Results

The results depicted in Table 8, show that corporate psychological characteristics explain 46.6 % of the board's implication in decision making ( $R^2 = 46.6\%$ ). These results actually sustain our four advanced hypotheses.



Regarding the control variables, the firm size and leverage ratio appear to have a significant and negative relationship with the board's size.

Table 8 also, indicates a significant and negative relationship between emotional intelligence and the board's size (!= -0.485; p=0.000). This result is due to the fact that every director enjoying high level of emotional intelligence tends to overlook and neglect other directors with different ideologies.

Besides, the model demonstrates a non-significant and negative relationship between loss aversion and the board's size (!= -0.070; p=0.564). This result can be explained by the firms' high level of emotional intelligence (the high level of emotional intelligence minimizes the presence of cognitive bias in the firms' decisions).

As for the regression, it suggests a non-significant and positive relation between optimism and the board's size (!=0.034; p=0.380). This positive relationship is due to the directors' optimism, as they tend to overestimate the CEO's qualifications and would accept all the decisions they make, for instance, adding new directors.

Moreover, the result has shown a significant and negative relationship between overconfidence and the board's size (!= -0.228; p=0.038). In fact, the following explanations could be partly forward: first, overconfidence appears to be a negative attitude influencing the individual's evaluative capacity. Indeed, overconfident directors tend to overestimate his/her personal capacity and, consequently, would refuse to add new directors to the board. Regression also presents an insignificant and positive relationship between cognitive flexibility and the board's size (!=0.191; p=0.533). This may be explained by the fact that a director who enjoys a great deal of cognitive flexibility would always prefer modification and seek to enhance a challenging decision. He could tend to be either indifferent or agree to add new directors.

Variables	Bêta	Significance	Reached
Expected		relationship	relationship
Constant	0.000		
	20.86		
5			
IE	-	0.000***	-
	0.485		
LAV	-	0.564	+
	0.070		
OP	0.034	0.380	+
OVER	-	0.038**	+
	0.228		
CF	0.191	0.533	-
LEV	-	0.004***	-
	0.326		
LNSIZE		0.042**	-
	-	0.466	
	0.226		

**Table 8: Cox and Snell ratios**

Board R<sup>2</sup>

The model

BOARD

BOARD =  $\alpha + \beta_1 IE + \beta_2 LAV + \beta_3 OP + \beta_4 OVER + \beta_5 CF + \beta_6 LEV + \beta_7 LNSIZE + \beta_8 BIND$   
members in the board of directors.

### Empirical tests

To estimate the model's parameters, the linear regression method has been applied: This model's objective is to describe the nature of relationship between the board's independence and emotional variables (IE and emotional bias).

### Results

The results appearing on Table 9 show that corporate psychological characteristics explain 60.8 % proportion of the board's independence ( $R^2 = 60.8\%$ ). These results actually consolidate four proposed hypotheses. In terms of the control variables, it has been discovered that the firm's size and leverage ratio have a significant and positive relationship with the board's independence.

Results have shown a significant and positive relationship between the board's independence and emotional intelligence ( $\beta = 0.364$ ;  $p = 0.000$ ). This result can be explained by the argument that the firms' partners who have had a high level of emotional intelligence are conscious about risk collusion between the CEO and directors. Owing to this fact, they are found under the obligation to choose independent directors to represent them in the board. This interrelatedness shows the positive role emotional intelligence plays in the board's efficiency.

Concerning regression, it presents an insignificant and negative relationship between loss aversion and the board's independence ( $\beta = -0.009$ ;  $p = 0.943$ ). This type of association could be justified by the loss aversion among the firms' partners as it is the case, for instance, when partners refuse to add a new outside director as this might generate the desperation of managerial rent linked to the modification in the board composition.

Moreover, the model presents an insignificant and positive relationship between optimism and the board's independence ( $\beta = 0.037$ ;  $p = 0.719$ ). This result might be explained by the investors' optimism: Investors so optimistic about the firm's performance are encouraged to invest in this firm; hence the number of outsider directors in the board is likely to increase.

Table 9 shows an insignificant and positive relationship between overconfidence and the board's independence ( $\beta = 0.037$ ;  $p = 0.719$ ). This could be explained by the CEO's overconfidence: This bias would generate some unconsciousness regarding the likely outcomes of introducing a new outsider director in the discretionary space. As regards cognitive flexibility, it presents a significant and positive relationship with the board's independence ( $\beta = 0.175$ ;  $p = 0.126$ ). Actually this can be explained by the board's cognitive role. This role might allow them to demand a new outsider director highly qualified in emotional intelligence.

**Table 9: The board's independence results**

variables	Bêta	Significance	Expected	Reached
relationship	relationship			
Constant	-0.348	0.005		
IE	0.364	0.000***	+	+

### Board size results

\*\*, \*\*\*, significance at 5% and 1%.

### Efficiency and Independence Members

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LAV	-0.009	0.943	-	-	
OP	0.037	0.719	-	+	
OVER	-0.014	0.881	-	+	
CF	0.175	0.126	+	+	
LEV	0.442	0.000***		+	+
LNSIZE	0.311	0.001***		+	+
Cox and Snell ratios R <sup>2</sup>					0.608

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\*\*\*, significance at 1%.

### **Board Efficiency and CEO Dual Functions**

#### **Model presentation**

DUAL= +<sub>1</sub> IE +<sub>2</sub> LAV+<sub>3</sub> OP +<sub>4</sub> OVER +<sub>5</sub> CF +<sub>6</sub> LEV+<sub>7</sub> LNSIZE +

**DUAL:** The CEO also owns the board's chair; it takes 1 if the CEO owns the board's chair and 0 otherwise.

#### **Empirical tests**

To estimate the model's parameters, the logistic binary regression method has been applied: The objective behind using this model lies in describing the relationship between the CEO's duality and emotional variables (emotional intelligence and emotional bias).

#### **Results**

The results appearing in Table 10 have shown that corporate psychological characteristics depict some 30.4 % of the CEO's duality (R<sup>2</sup> = 30.4%). Actually these results are supportive of our four advanced hypotheses. Regarding the control variables, one could discover that the firm's size has a significant and positive relationship with the CEO's duality.

The results also highlight a significant and negative relationship between emotional intelligence and the CEO's duality (!= -0.121; p=0.018). This can be justified by the firm partners' high level of emotional intelligence: This competence allows them a better evaluation of the CEO's competence along with the firm performance. In this way, the CEO duality is minimized.

Moreover, regression shows a non-significant and negative relationship between loss aversion and CEO duality (!= -0.084; p=0.509). This has an explanation in the fact that when the shareholders are exposed to risk aversion, they tend to refuse all the CEO's decisions that favor his discretion, mainly his dual functions.

As regards optimism, it presents a significant and positive relationship with the CEO's duality (!= 0.508; p=0.015). The optimistic shareholders appear to accept all the CEO's decisions affecting the efficiency of corporate governance mechanisms.

Added to this, Table 8 shows a significant and negative relationship between overconfidence and CEO duality of function (!= -0.338; p=0.062). This result is justified by the fact that an overconfident CEO has a tendency to overestimate his capacity and personal competence. These biases inhibit him from being a board's chair.

Eventually, this model alludes to a non-significant and positive relationship between cognitive flexibility and the CEO duality (!= 0.172; p=0.404). This result due to the fact that the CEO's high level of cognitive flexibility can improve and broaden his discretionary space due to his standing as a board's chair.

**Table**

Variables	Beta	Significance	expected		
Constant	0.562				
	2.318				
IE	-0.121	0.018***	-	-	
LAV	-0.084	0.509	+	-	
OP	0.508	0.015***	+	+	
OVER	-0.338	0.062*	+	-	
CF	0.172	0.404	-	+	
LEV	-0.013	0.994	-	-	
LNSIZE		0.053**	-	+	
	0.290				0.304
Cox and Snell					21.779
ratios R <sup>2</sup>					value=0.003***
Model "2					
N					60

**10: CEO duality results**

\*\*, \*\*\* respectively significance at 10%, 5% and 1

### Discussion

worth noting that most of the previous analyses predominantly suggested that the leaders' emotional characteristics have had a significantly noticeable impact on the directors' board efficiency. One might well, ask, however: Are emotional characteristics (whether emotional intelligence or emotional bias) primary determinants of the directors' board efficiency? Actually, the multiple regressions this study depicted have examined the relationship governing binding the leaders' emotional characteristics and board of directors' composition and efficiency. P-the results depicted in Table 6 have shown that corporate psychological characteristics explain proportion of the board's implication in the decision making strategies (R<sup>2</sup> =46.6%). These

results are actually corroborative of our set hypotheses: The high level of emotional intelligence enables us to minimize the behavioural biases (the loss aversion bias), and achieve an effective control thereof.

Regarding the results appearing on Table 7, they have shown that firms' corporate psychological characteristics explain a 60.8 % ratio of the board's independence (R<sup>2</sup> = 60.8%). These results are supportive of the set hypotheses. In fact, emotional intelligence allows every individual to develop emotional consciousness, which in turn helps him react appropriately to different situations. It would actually help the manager to realize himself better and preserve his motivation to accomplish his shrews and task, along the control of the directing team.

As for the results predicted in Table 8, they have demonstrated that corporate psychological characteristics proportionately explain a 30.4 % fate of the CEO's duality (R<sup>2</sup> = 30.4%). These results actually consolidate our assumed hypotheses. Indeed, emotions or emotional intelligence particularly guide the individual towards rationality. Data have suggested that the individuals enjoying a high level of emotional intelligence would be more aware of the factors affecting and influencing their positive and negative emotions. The awareness and understanding of these emotiontriggering factors would allow managers to choose the appropriate measures, take the convenient step and improve the board of directors' efficiency as a governance means and mechanism.

Finally, the empirical analysis of the relationship governing and binding emotional intelligence and the board of directors (board size, it members' independence or presence of external directors and multifunctionality) has highlighted a positive impact of the Tunisian managers' emotional intelligence on the effectiveness of control through this mechanism. It also affirms the complementary relationship between emotional intelligence and the directors' board. Yet, it is worth mentioning that the present work is restrained by certain limitations, namely:

Firstly, some psychological aspects of theoretical nature could not be wholly approached in a complete empirical way. This limit is due, on the one hand, to the nature of the data sought, which may be perceived as being personal, or even secret as far as the contracted leaders are concerned. On the other hand, it is due to the applied research tool which has not enabled us to achieve all the intended desired data. As a matter of fact the questionnaire turns out to be non-flexible means of data collection. In our case, we have realized that certain questions or items (especially those measuring managers' over-confidence) should have been modified or added so that more accurate data could be reached and the theoretically-studied variables to be more operational.

The researcher's representations regarding the studied variables (defined in terms of responses to the questionnaire), constitute a limit in so far as they are dealt with throughout the various choices made all over the research; actually they do leave some trails of subjectivity.

### **Conclusion**

This article has examined the impact of emotional intelligence on the directors' board efficiency. Noteworthy, the aimed target behind this work has been to devise an attempt which has long prevailed over behavioural biases, whereby to elaborate a predominant research gap by implementing a survey conducted around some executives of large private companies in Tunisia. Actually, the collected data analysis has shown the importance of emotional intelligence as a prerequisite key skill or competence – which may improve the controllers' perception and evaluation of alternatives – in improving the control quality. Indeed, the empirical analysis of the emotional intelligence relationship with the board of directors regarding such factors as board size, presence of external executives and multifunction holding has led to depict a positive impact of the Tunisian managers' emotional intelligence on the effectiveness of control via this mechanism. In addition, it has highlighted the complementary relationship between emotional intelligence and the board of directors. Nevertheless, the negative relationship between emotional intelligence and the behavioural biases reunions is not thoroughly evaluated and verified yet as to be a fact itself.

Authors need to consider that emotional aspect which permits to minimize CEO emotional biases and provides board of director's effectiveness.

This article has implications for the development of CEO emotional intelligence capacity. Besides, some psychological aspects of theoretical nature could not be entirely approached in a complete empirical way.

The article pushes organization to select managers based on their levels of emotional intelligence by applying tests of emotional intelligence as in psychometric tests. Also, it increases the validity of inferences made from researches in the field.

This article incites governments to establish training programs which aimed at the development of emotional intelligence learning. Thus, it has important implications for enhancing the well-being of individuals, organizations, and society as a whole.

Actually, for the sake of improving the explanatory power of legal-financial approach of governance, the behavioral dimension has been integrated for a more thorough analysis of the board of the directors' role. Our goal consists in highlighting the role played by emotional intelligence as a skill or tool available for the manager or controller to minimize the behavioral biases: bias of loss aversion, optimism, over-confidence and lack of cognitive flexibility, and achieve an effective control.



Given its numerous diverse personal, social and professional advantages, effects and benefits emotional intelligence turns out to be a worth developing skill that needs to be even deeply explored and further thoroughly promoted.

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