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Managerial Entrenchment and Stakeholder Satisfaction Tunisian Listed Companies Case

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GJMBR-A Classification : *JEL Code: M00, M19*



MANAGERIAL ENTRENCHMENT AND STAKEHOLDER SATISFACTION TUNISIAN LISTED COMPANIES CASE

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Managerial Entrenchment and Stakeholder Satisfaction Tunisian Listed Companies Case

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Abstract - The effect of CEO entrenchment has often been attached to the company owners wealth measured by financial performance. CEOs are more concerned about coalition members, and recognized the importance of integrating stakeholders into the evaluation system of managerial performance. In this paper, we focus on the evolution of governance systems by integrating stakeholders' perspective. We illustrate the crossing from the "shareholder" approach to "partnership" approach as part of the activism of managers. Based on some managerial performance ratios as input, our approach is to use a combination of rough set theory, the genetic algorithm and support vector machines to predict whether satisfaction can be a factor that promotes CEO entrenchment. From a sample of 45 Tunisian companies listed during the year period 2008, we evaluate the stakeholders' influence on the CEO entrenchment strategy. The proposed approach shows that a CEO who cares about his entrenchment, can provide very favorable conditions to employees and customers who contribute to reduce his risk of being dismissed, to overlap his term of office and even exceed his retirement age.

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I. INTRODUCTION

For fifteen years, much research has been concerned with effective governance mechanisms. These studies have inspired the basis for the managerial activism that the entrenchment theory assumes. This latter thus presumes the control entities' failure to induce management leaders in accordance with the interests of capital owners. It also argues for a leaders' career strategy inside the company evoking the possibility of expanding "space discretion", or power extension as many studies have noted sidestep manoeuvres accepted by the leaders to avoid or even overcome control mechanisms. Yet, the rooting effect analysis has often been linked to shareholder wealth measured by financial performance. Castanias and Helfat [1992] and Garvey and Swan [1994] stipulate that the officer is supposed to retain the time it provides a minimum level of profitability for investors. In fact, Marois et Bompont [2004] argue that for the company's financial management, the governance system defends both the use and the obligation of the leader to create

shareholder value as the first proposals for the agency theory. However, with the evolution of governance systems, we have recorded the alteration of the shareholder's value of to a "partnership" value (Maren, 2003).

The extension of the leaders' concerns to the different coalition members has thus recognized the importance of a diverse shareholders' satisfaction. Under the light of these observations, we will try, in this work, to contribute to the earlier literature dealing with the phenomenon of entrenchment by involving key stakeholders of the firm, including investors, customers and employees, in the frame of arguing the theory of the roots as tool governance. The involvement of stakeholders refers to expanding the notion of organizational performance, where the indicator is no longer confined to the financial dimension through shareholder value, but does also incorporate the stakeholder value. This latter is actually neglected in the analysis of the rooting phenomenon.

We therefore introduce the stakeholders' satisfaction and managerial activism. In this way, we suggest the obvious importance the coalition in corporate governance. An answer to the following question is thus suggested: What is the satisfaction's role of stakeholders in the business of rooting leaders? This work, thereby, aims at studying the satisfaction of the main stakeholders as determinant of rooting leaders. Therefore, it foresees to start the debate on governance partnership within the framework of managerial activism. In relation to the raised subject matter and in accordance with the above objective, this research will consist of two main parts. The first part is but an effort to clarify the conceptual framework that structures the relationship between entrenchment and stakeholder satisfaction. The second one will empirically validate the theoretical model developed in the preceding part. Based on some relevant tools of data mining such as support vector machines (SVM), rough set theory (RST) and Gaussian case based reasoning (CBR) clustering; we found that the highest accuracy rate is the rate of employees' satisfaction. Then, the latter is an interesting factor that should explain the CEO entrenchment. The reminder of this work is organized as follow. Section 2 outlines Rooting and stakeholder satisfaction. The data mining approaches are given in section 3. An empirical study was done in section 4.

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II. ROOTING AND STAKEHOLDER SATISFACTION

Recognizing the weights of individual coalition members about the prospect of managerial actions must have caused several researches in the context of the "partnership governance". In this regard, the stakeholders will have a role in exploration or even auditing that aims at avoiding false communications and ensure that the societal strategies are not a simple duty officers (Capron and Quairel, 2002). In its expanded version, and in accordance with a more comprehensive view of efficiency (Charreaux 2002), the integration of other partners of the organization rather induces qualitative criteria. The financial criteria for assessing the wealth of shareholders are no longer exempt from weakness, particularly as regards the difficulty of measuring and "the risk of short-termism (Albouy 1999). Hence, we speculate about the extent of their involvement in managerial activism. Consequently, several questions appear: "Are the "stakeholders" capable of defeating the leadership decisions or will they partner with managers to strengthen their policies? Will they fit into the logic of a minimum return (Castanis and Helfat 1992) and maintain the leadership in place or will they oust the holders of deviant behavior? Can we talk about a role of executive oversight by stakeholders or rather an appreciation of the stakeholders lever rooting? We present this as a sub-part here to clarify the proper role of stakeholders in the context of managerial activism. We will deal with the particularity of the relationship customers, employees and shareholders. These speakers represent key organizational actors.

a) *Entrenchment and Customer Satisfaction*

The treatment of customer / political leader in the rooting is based on the mobilization of implicit contracts. In their activism, the leaders support the use of informal contracts that are specific (Shleifer and Vishny 1989). They are based primarily on their reputation or network of trust that they will be able to (Breton and Wintrobe, 1982). In this context, the leader can maintain good relations with some customers and bind their loyalty to his presence at the company's management. As a result, shareholders will not have to break with it for fear of losing key customers to competitors (Charreaux, 1997). Thus, we presume that customer's loyalty will promote entrenchment.

b) *Entrenchment and Employee Satisfaction*

The managerial activism through the employee's satisfaction depends on the development of internal networks' relationships. These internal branches are based on the agreement or in-kind benefits, bonuses or the promise of great deals.

Leaders can agree to enter into implicit on tracts with employees in exchange for greater productivity and prospects for promotion (Charreaux,

1997). These incentive policies geared towards enhancing its legitimacy near shareholders in conflict situation. Employees may well perceive that their remuneration is contingent on the continuity of the management team (Parrat, 1999). In this perspective, the leader often tends to increase the size of the firm and the number of hierarchical levels or even invest in activities which he holds with these actors a comparative advantage (Charreaux, 1997). Employees, will thus interest in what the officer is not replaced, and may even work for keeping him at the head of the organization. Consequently, satisfaction of employees promotes the entrenchment of management.

c) *Entrenchment and Shareholder Satisfaction*

Shareholders' perception of managerial activism through shareholder satisfaction is based on valuation of specific investments. The amplification of such investment reduces both the competition in the labor market and the number of team's competitors able to manage the firm and maximize shareholder wealth, giving free rein to opportunism. These investments "idiosyncratic" better able to administer than other business assets, allow them to get rents otherwise they would not have created (Castanis and Helfat, 1992; Garvey and Swan, 1994). They transform the enterprise space for creativity and innovation likely to achieve their membership and their cohesion with other partners of the organization. Accordingly, shareholders and other partners of the firm benefit indirectly from rooting. The leaders are expected to maintain their place as they provide shareholders with minimum return (Charreaux, 2009). Satisfaction enhances shareholder, then the roots of leaders. Through the review of literature, lectures and explanations in this first part, we reviewed the work to define the dependence of the entrenchment in respect of organizational performance, proven by the satisfaction of main stakeholders in the framework of "partnership governance". We designed in this way, an analytical framework that helps us better understand the relationship covered by our study. The previous shared research and interpretations, have led to question a set of assumptions theory that offers us the opportunity to refine our problem and our research on rooting leaders through the appreciation of the main stakeholders. Our processing logic based on a fundamental premise, consists in the fact that the stakeholder satisfaction, whether it concerns customers employee or shareholder, is able to promote managerial activism. As the various members' coalition, this contentment, no intervention can register under the revocation of the managerial entity. These leaders, despite their inclination and their opportunistic appropriation of rents at the expense of other parties stakeholders are able to retain both they provide a minimum level of profitability. These different assumptions will be raised an empirical validation given in the following section. The empirical study is based on specific ratios as input data. Our

approach integrates RST, GCBR clustering, real valued genetic algorithm (RGA) with SVM. This combination was justified by a high accuracy rate's tool (Telmoudi et al. 2011).

III. THEORETICAL FRAMEWORK

a) Support Vector Machines

SVM is a machine learning technique developed by Vapnik (1995). It can be used for regression, classification and prediction. In SVM process generally they search the optimal hyper plane by maximizing the margin of the separating hyper plane while ensuring the accuracy of correct classification. In the non linear case data are not separable; where a kernel function should be introduced. The problem is experimented as follow:

$$\text{Max } L_D = \sum_{i=1}^N \alpha_i - \frac{1}{2} \sum_{i=1}^N \sum_{j=1}^N \alpha_i \alpha_j y_i y_j \varphi^T(x_i) \varphi(x_j) \quad (4)$$

$$\text{Subject to:} \quad \sum_{i=1}^N \alpha_i y_i = 0, \quad i = 1, 2, \dots, N \quad (5)$$

$$0 \leq \alpha_i \leq C, \quad i = 1, 2, \dots, N \quad (6)$$

$$\alpha_i [y_i (w^T \varphi(x_i) + b) - 1 + \xi_i] = 0, \quad (7)$$

$$\mu_i \xi_i = 0 \quad (8)$$

Where, α_i is the Lagrange multiplier, and $\varphi^T(x_i)\varphi(x)$ tends to be replaced by the radial basis function proved performant in the study of Smith et al., (2000).

$$K(x, y) = \exp(-|x - y|^2 / 2\sigma^2), \quad (9)$$

b) Rough Set Theory

RST is a machine learning method developed in 1980 by Pawlak (1981). It is a non parametric technique; it can be employed for discovering facts from imperfect data. Pawlak (1991) shows that RST "does not need any preliminary or additional information about data such as probability distribution in statistics, basic assignments in the Dempster-shafer theory or grade a membership or the value of possibility in fuzzy set theory". RST can be used as a data preprocessor, where it can reduce data dependencies and reduce unnecessary attributes with no information loss and identify subsets of potentially essential explanatory variables. The basic concepts of RST are the information system, variable reduction and decision table. Concerning the information system, RST defines three regions based on the equivalence classes induced by the attributes values: Lower approximation $\underline{p}(x)$ contains the entire objects which are classified surely based on data collected. Upper approximation $\overline{p}(x)$ contains all the objects which can be classified probably. Boundary approximation is the difference between the upper approximation and lower approximation. An ordered pair $(\underline{p}(x); \overline{p}(x))$ called a Rough set.

$$\min F(w, \xi) = \frac{1}{2} w^T w + C \sum_{i=1}^N \xi_i \quad i = 1, 2, \dots, N \quad (1)$$

subject to:

$$y_i [w^T \varphi(x_i) + b] \geq 1 - \xi_i \quad i = 1, 2, \dots, N \quad (2)$$

$$\xi_i \geq 0, \quad i = 1, 2, \dots, N \quad (3)$$

Where, w is the normal vector of the hyper-plane, $\varphi(x_i)$ is the transformation function, b is the bias value, $X = \{x_1, x_2, \dots, x_N\}$ is the training data set, $y_i = \begin{cases} +1 \\ -1 \end{cases}$ is the label associated to case (i) , N is the number of samples, the regularization parameter C is the tradeoff between minimizing fitting errors and minimizing model complexity and ξ_i is the slack variable.

To solve this equation we use the Lagrange formulation and Krauch-Khun- Tucker condition:

There are two fundamental concepts: A reduct of knowledge and the core where the core is the intersection of several reducts in the information system; sometimes the core can be empty.

For the decision table $S = (U; C \cup D)$ its reduction is in fact to reduce the number of condition attributes (C) with respect to decision attributes (D).

c) GCBR_Clustering

The GCBR_clustering method is based on the similarity information. Shiu et al. (2000) were the first ones who developed the clustering based information similarity (relational clustering). And they proved that this method is performant than classical ones such as k-means clustering.

There are several methods which can be used to retrieve similarities between each pair of cases. In the literature, researchers are in daily search of appropriate measures of similarity. The Gaussian case based reasoning (GCBR) proposed by Li and Sun (2009) was proved performant.

Based on the similarity relation derived from the GCBR method, and Telmoudi et al. (2011), the case base can be divided into sub clusters, using the following algorithm:

Step 1 : Determine the similarity matrix

Step 2 : Fixe a centroid X representing a reference that has the maximum values of variables.

Step 3 : Determine clusters according to the rule "case i " belong to the cluster 1 if and only if $SIM_{xi} > \text{Mean SIM}$

and belong to cluster 2 otherwise, $i=1,\dots,N$. Where SIM is the similarity founded in step 1 and N the number of the observations.

d) Real Valued Genetic Algorithm

The RGA uses a real value as a parameter of the chromosome in population without performing coding and encoding process before calculate the fitness values of individuals (Haupt and Haupt (1998)). The real valued genetic algorithm is more straightforward, faster and more efficient than the binary genetic algorithm.

IV. EMPIRICAL STUDY

The data used in this study concerns Tunisian companies listed during the period 2008. In order to predict which satisfaction can be a factor that promotes CEO entrenchment, our experiment has been based on three databases containing managerial performance ratios concerning shareholders, customers, and employees.

Throughout variables initially used in the three databases, there are 7 common attributes which are the accumulation of mandates (AM), seniority on the board (SB), duration of the mandate (DM), number of mandates before his nomination (NMBN), number of mandates after his nomination (NMAN), Age (AGE) and seniority in the firm (SF) that explain the CEO entrenchment. In addition to these variables, there are some other variables that explain specifically shareholders' satisfaction: return on assets (ROA) and return on equity (ROE). For customers' satisfaction : The 10 determinants of service quality (Parasuraman et al. 1985), Access, Communication, Competence, courtesy, credibility, reliability, responsiveness, securities, tangibles, understanding/ knowing the custmor. For employees' satisfaction; see appendix.

In this study, we treat separately these three databases in order to predict which satisfaction can be considered as the crucial one for CEO entrenchment based on RST-GCBR_Clustering-SVM model.

The proposed work consists of three basic steps. First, we apply the RST algorithm for key attributes selection. Then, we select the pre-processed data in order to use them as input in the clustering process based information using GCBR. Finally, generate prediction using SVM.

For minimizing misclassification rate, based on RST method using the ROSETTA software, we select 5 key variables out of initial variables used in order to explain shareholders satisfaction. Table 1 shows the selected variables.

Table 1 : Selected variables for shareholders satisfaction using RST

Variables	Maximum	Minimum	Std.dev
AM	1	0	0,4711553
NMBN	15	0	3,87762051

NMAN	16	0	4,47939846
ROA	3	-8	1,29786782
AGE	120	8	20,1799908

After assessing the key attributes, these variables were used as input data of the GCBR_clustering process based on information similarity. In this step, the whole database will be partitioned into two sub clusters where the centroid of cluster1 is a reference firm that have the highest values of each variable. Thereby, firms belong to cluster 1 if their similarity value is higher than the mean of all the similarity values in the sample, otherwise it belong to cluster 2. As a result we find based on selected variables that cluster 1 contains 28 firms and cluster 2 sized 17 firms. These two new databases are used as input of SVM in order to predict if the shareholders satisfaction explain adequately CEO entrenchments.

In the final step, we use the radial basis function as a kernel function, where the parameters are optimized using the RGA algorithm. For validation, we use the holdout cross validation, where the entire data is partitioned into 2 sets one for training and one for testing. The results of diagnosis model are summarized in Table 2.

Table 2 : Diagnosis results for Shareholders satisfaction Accuracy rate

	Accuracy rate
Cluster 1	64.2857
Cluster 2	64.7059
Average accuracy rate	64.4958*

The rate 64.4958 shows that we cannot predict accurately if shareholders are satisfied or not, thereby, it can lead to rise up the risk of CEO dismissing. Therefore, the shareholders satisfaction cannot be considered as a factor that promotes CEO entrenchment.

Concerning the customers and employees databases containing 881 observations, the same steps are followed, where the results were as follows. For customer database, out of 13 variables initially used 9 variables were selected. For the employees, out of 25 variables, initially used, 15 key variables were selected.

Based on these variables, new databases based on GCBR_Clustering are generated in the second step. Where, for customer database, cluster 1, has as a centroid a reference customer where he has the maximum variables values. Following the rule that customers belong to cluster 1, if the similarity is higher the mean of all the similarity values, otherwise belong to cluster 2. Thereby, cluster 1 contains 417 customers while cluster 2 contains 464 customers. As well as for employees, the reference employees has also the same characteristics as the reference client. Thereby, cluster 1 become sized 455 employees and cluster 2 contains 426 employees.

Once the new databases are found, we apply the SVM in order to predict which of three satisfactions cited above serves to promote CEO entrenchment. Table 3 and Table 4 summarize the performance of SVM prediction for customer and employees respectively.

Table 3 : Results of diagnosis model for customers' satisfaction

	Accuracy rate
Cluster 1	63.5491
Cluster 2	82.1121
Average accuracy rate	72.8306*

The rate 72.8306 is not so higher, thereby the customer satisfaction prediction still not performant, so we cannot predict adequately their satisfaction therefore it cannot allow explaining adequately CEO entrenchment.

Table 4 : Results of diagnosis model for employees' satisfaction

	Accuracy rate
Cluster 1	85.9341
Cluster 2	95.7746
Average accuracy rate	90.85415*

The average accuracy rate of the employees' satisfaction is high and it shows that we can predict employee satisfaction accurately, thereby, employees' satisfaction can be considered as a factor that serves in CEO entrenchment.

Through Tables 3 and 4, we found that the highest accuracy rate is the rate of employees' satisfaction. Thus we can conclude that the employees' satisfaction can be a crucial factor that can promotes CEO entrenchments, in second steps comes the customer satisfaction and at least the shareholders satisfaction.

V. CONCLUSION AND SUMMARY

The simplistic view of corporate governance, concerned only with the interests of shareholders, has highly been controversial (Bahgat and Black, 1999). Hence, we are witnessing an attempt to extend the Positive theory agency to address the various relating criticisms. New control mechanisms and incentive systems must be considered to preserve the interests of all partners and the optimization of stakeholder value. Thus, by integrating the power phenomenon and dependence resources, stakeholders are taken into consideration.

In this framework, our advanced results enable the emphasis on the transition from orientation to shareholder value instead of partnership. Our descriptive research of rooting leaders through the satisfaction of key organizational actors allowed us to demonstrate the weight of the intervention of customers, shareholders as well as employees as part of managerial

activism. The leader may have a quality -based relationship with certain customers and relate their faithfulness to his attendance at the firm's management. Hence, these shareholders won't aim at breaking with him fearing to lose important clients to the profit of competitors. Moreover, the leader knots his own relational inter network that enables him to delegate some managerial tasks to his collaborators. The satisfaction of employees seems to reinforce the entrenchment of leaders realized by the combination of mandates and increased number of terms before and after being named CEO. Besides and in relation to the previous results, we confirmed the entrenchment of the leaders thanks to the shareholders' satisfaction. The leaders are supposed to preserve their place as they provide a minimum return to shareholders (Castanias and Helfat, 1992, Garvey and Swan, 1994) still looking at the level of minimum profitability that enables to reinforce its activism.

In this orientation, as opposed to reflections Messonnet (1999) argues that shareholder value as a guiding principle of the evaluation of the company, we have enhanced the weight of other stakeholders.

Indeed, methods Performance Assessment Organizational have, so far, built around financial criteria involving only owners. As part of this research have succeeded in showing the number of employees on enlargement of the discretionary space for managers. Although, the roots of leaders are dependent the satisfaction of our key players organizational, a large weighting is allocated to employee satisfaction. We stipulate that the relational networks established with employees the organization are able to promote their rooting Organizational. The pay salaries are able to support the head in place until they are satisfied. The latter can probably develop incentive policies cash or in kind to rally them to their causes. Compared to the Tunisian context, the wave of dismissal of the Tunisian leaders after the revolution January 14, 2011 explains the strong relationship between rooting and employee satisfaction. The disgruntled staff rallied after a large silence to clear all the leaders who are trying to serve their own interests at the expense of social welfare.

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APPENDIX

List of items retained after the literature review for the overall employee satisfaction

In your current job, are you satisfied of
your career opportunities?
working conditions?
opportunities to do different things from time to time?
your importance to others?
how your boss directs its employees (human relations)?
the competence of your supervisor in the decision-making (technical skills)?
opportunities to do things that are not contrary to your conscience?
the stability of your job?
opportunities to help people in the business?
opportunities to tell people what to do?
opportunities to do things that use your abilities?
how the rules and procedures of the company are being application?
your salary from the important work you do?
opportunities to make decisions on your own initiative?
opportunities to stay busy all the time during the working day?
opportunities to work alone in your job?
how your colleagues agree among themselves?
compliments you receive for achieving a good work?
the sense of accomplishment you withdraw from your work?