

“HRM and Shareholders’ Value Creation”

Abstract: *It’s conceptually attractive to look for connection between performance, HRM and economic situation. How measure epiphenomenon’s impact when we can’t isolate that from global strategy? If casual relations maybe established, event can be interpreted in several ways (e.g. its chicken and egg situation...). This paper presents the results of a research on corporate performance measured by the creation of shareholder value. To do that we test empirically forced ranking’s performance versus all other classic human resource managements’ result first with a statistical comparison of share based on fortune 100 (from 1996 to 2000); second with Standard & Poor’s (S&P) 500 value creation (from 1997 to 2000) with “Marakon Associates” (the growth between Market-to-book values ratio and the ROE spread (ROE – Cost of equity capital)).*

Keywords: *Forced Ranking, Classic HRM, Share value creation.*

Codes Jel : C0, G1, L14, L23, M5

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Before, a company eager to follow an ethical policy, by ensuring the maximum of stability with its personnel, found the means of keeping a certain flexibility in the line with current trends. The solution then, in the USA, was the rule of the entered last first left; another rule in the fifties and sixties was the hoarding of labour but that is well far... Decade 90 saw developing in the USA *Forced Ranking*¹. This *HRM* was applied a lot. A *Fortune* article (2001) indicated that 25 percent of the *Fortune 500* use some form of forced ranking².

In order to improve performance management effectiveness, more and more companies are turning to forced ranking. Different from absolute rating approaches, where employees are assessed against defined standards and typically rated on a strict bell curve as “Top, meets, Bottom” expectations, a forced ranking process assesses employee performance relative to a peer group and often includes quotas or forced distribution of ratings (e.g., “C” 10% low, “B” 80% middle, “A” 20% high).

Insert Figure 1: Ranking Bell Curve

During a McKinsey seminar (Holman and Jenkins, 2001: A19), only 16% of the managers consider to be able to distinguish, among their employees, the performant wage earner from the others. However according to Pfau & Kay (2001) traditional purposes of HRM can break up into four:

- (1) Attract competences,
- (2) Set up strategies to develop them,
- (3) Mobilize them,
- (4) Preserve only those which are necessary under constraints (legal, efficiencies and ethics).

In *Human Capital Index European Survey 2002*, the Human Resource Consulting Watson Wyatt asserts *Great people management equals great shareholder value: European companies with the best human capital management deliver around twice as much shareholder value as their average competitors (89,6% of value added over 5 years)*³ ! He concludes that four practical *HRM* out of five are likely to create the stock exchange value: the recruiting of talents, an innovation strategy of reward, a framework of flexible and collegial work and the quality of communication. The 360-degree feedback⁴, can be, as far as it is concerned, counter productive. Greene (1999) gives the intangibles ones of a firm for the investors. Five out of nine come under the field of *HRM*: the credibility of management; capacity to attract and hold back talents; capacity of innovation; the experiment of management; the logical systems of payment.

These statements would justify the use of forced ranking⁵. If the ranking become popular it is also controversial. Indeed former General Electric chief Jack Welch is an enthusiastic supporter of forced ranking. For some CEO ranking is a panacea who is being adopted because senior leaders believe managers have not addresses performance problems or adequately developed their staffs' talent. These leaders believe that ranking will help managers who are not doing their job raise the level of performance in their organizations; and for others this is a classic case of suboptimization because this is a tremendous drain on management time, a demotivating factor for he employees, and a loss for the economy as this affects these company stability to compete in the global market.

If the managerial speech confirms *HR* primacy as for the performance of the organization, some methods employed have difficulties to convince even their own employees and the ranking seems to be part of them. According to Arcimoles and Saulquin (2002: 3), two assumptions are put forward:

“1) The *HRM* of the leaders is not the employees’ one in the sense that a practice considered to be effective by the hierarchy can actually not exist or have negative effects. Leaders and employees are ultimately not talking about the same thing.

2) The *HRM* of the leaders supports the final economy performance, but not the “partnership” performance. Therefore *HRM* is controlled by the hierarchy developing a management badly accepted by the employees.

Consequently, whatever the explanation selected, the employees are not the “owners” of the *RH* policy anymore, and it is economical performance which is.”

Knowing that General Motors, General Electric, Ford,...have imposed forced ranking in their enterprises to reduce wage costs, it is impossible to say if the other firms adopted the management deliberately by strategic imitation or under the diktat of shareholders and the markets? Notwithstanding the arguments of an easy and continuous reduction wage costs, it is brought forward that the approval choice of ranking induces a high-performing culture. It is also difficult not to consider a relationship with Brockner’s thesis (1999) linking performance and level of insecurity or to evoke the fight against apathy (Bajoit, 1988) still see a managerial will to mask its strategy or its difficulties at the markets as with the competitors.

The service profit chain (Heskett and al., 1997; Le Louarn and Wils, 2001: 41-43) makes the assumption that stake holders’ satisfactions are interdependent. In other words, satisfied employees produce (i) in greater quantity of the service of better (ii) quality which increases (iii) customer’s satisfaction and therefore (iv) their faithfulness towards the firm. In fine, wage satisfaction would be a pledge of guarantee of value creation in terms of profit and growth. However, all things being equal in addition, if the causal chain exists when too many parameters are concerned, two readings of the relation are possible (Ryan and al., 1996; Koys2001): if the quality of the *HRM* is “correlated” with better performances, why good financial performances would not include a *HRM* of worth?

Subsequently, why not conceive that the crisis, conjunctural mass layoffs and the demotivation in by-effect due to survivor sickness (Noer 1997; Brockner 1992) would break this virtuous circle and stem from a destruction of worth? Reciprocally, forced ranking⁶ and its structural procession of lay-offs either credible but real threats, would less penalize the future performance than all other *HRM*? Is ranking an efficacious process in terms of *Value Creation*?

After having recalled in what forced ranking consists, the future of *Value Creation* will be initially analyzed with the model of “Marakon Associates” on the first hundred American companies for *Fortune 100* (between 1996 and 2000). We will then compare the *Value Creation* of quoted value of the firms dimensioned with the index S&P 500 (from 1997 to 2000).

The assumption that we test here is the existence of simultaneity between the stock exchange performance and the use of forced ranking (which the matter is the structural layoffs) when an economic slowdown occurs and asks for fast reductions of man power. On the contrary, when economic growth the best performance is obtained by the firms which use a classic *HRM* (e.g. the dismissals are purely conjunctural). Forced ranking *HRM* would thus induce negative effects (Kreps, 1996) capable of disturbing the managers at the time of their future recruitment. If some of the previous reports justify the use of forced ranking⁷, we will note that the happiest working-bees execrate the employees without pity with the poor performers.

In the large contemporary companies, the professional amorality is transformed into economic morality (socially correct) and when the screw of system of control of performance is very tight, economic morality can even change into a social morality (Mintzberg 1990: 460-61). It is necessary thus to think on the good interpretation of what said Milton Friedman

(1970) in a famous article “*the Social Responsibility of Business Is to Increase Its Profits*”. In other words, does the shareholder win with forced ranking *HRM*?

The choice of the period is being obvious on us because the record of all times, of mass lay-offs and the number of reduction in force in the USA goes back to 1998. This is why our report considers the contiguous years. The events of 2001 are an exogenous shock consider as too brutal and unpredictable so that a significant analysis can of it be drawn.

Insert Table 1: Mass Lay-offs

1. Forced Ranking

The contract of employment confers to the employees a capacity of control which gives him the right to evaluate the workers. Still it would be very reducing to bring back the validity of the criteria of evaluation to the only observation in general terms supposes a good control of the contextual variations that the attendants do not have necessarily. About Elton Mayo (1945: 79) asserts “the working group as a whole actually determined the output of individual workers by reference to a standard, predetermined but never clearly stated, that represented the group conception (rather than management’s) of a fair day’s work. This standard was rarely, if ever, in accord with the standards of the affiance engineers!”

Several authors propose that the purpose of downsizing is to reduce costs, improve efficiency, and reach a higher ratio of productivity to costs (Merry & Singer 1994: 37; Noer 1997: 208). The new doctrine preaches Pay people Right linking intensity of the effort and level of the wages. To be done, there is the traditional distribution of stock-options (premiums given in event of “very good health” of company’s stock quotation)⁸ but also the pay with the merit and threat of lay-offs (Saint-Onge, 2000; Schuster and al., 2000).

The study of Joel Brockner (1992) tends to prove that in American firms, too much safety or of insecurity has a negative impact on the output. The optimum performance is obtained with a “moderate” but real insecurity level...

Insert Figure 2: Performance and job security level

The individual strategy reward/penalty would accelerate the revelation of performances owing to a credible threat (e.g. the structural lay-off). Forced ranking will also try to retain, thanks to premiums, the “strongest potentials” and get rid of the others. It is a way to mitigate uncertainty at the time of recruitment, to maintain the pressure as for the current output and to have a target ready to be laid off when an economic shock occurs. Only remains to establish the frequency and the criteria of evaluation to calculate and compare the levels of performance reached.

As for Holmström and Milgrom (1991), the output constitute only signal of the quality of the work done because exogenous elements to the representative agent can have an effect on the result (with the fall or the rise). In fine, for these authors, if the activity considered is multidimensional with results more observable than verifiable then the optimal contract is not a very sophisticated contract, mixed with simple diagrams of remuneration.

If the reward remains the main mean of stimulation used by the hierarchy to optimize the result, the punishment tends to rather becoming a more permanent and structural threat due to an unfavorable economic situation.

This management forces the working group to classify all the employees with an aim of accelerate the revelation of the productivity of each one. Consequently, this obligation will avoid the shareholder of the firm to fall into the skewness underlined by Prendergast (1999)⁹ without losing the benefit of 20% are retained by the payment of no-Claims bonus. The

means undergo the law of the market for the wages¹⁰. The worst (5 to 15%) are requested to improve (up and out) or are returned forthwith (out and out)¹¹.

The polyvalence and the ease of use of forced ranking HRM did of them one of the most used methods evaluation wage in North America but its main quality is undoubtedly also its main failure (e.g. the subjectivity of the evaluation). Indeed, on the one hand, the objective criteria of evaluation are difficult to establish on the totality of deployed individual competences¹²; in addition, the hierarchy lays down only the rules ‘of the game’ to the sights of its particular objectives¹³; finally, the relative classification will punish good but non excellent employees if they have misfortune to belong to a picked group (and conversely for the bad employees composing the worst group). Overall, if the results of certain activities are unobservable and if some tasks which may be substituted by another, the representative agent will firstly allocate its efforts towards elements remunerated to the detriment of more essential factors but not subsidized financially (less easily identifiable). The opponents with this HR management (for example Deming, 1986, moreover is an adept of *Total Quality Management*) assert that the variation of the performances are due to external factors rather than internal ones; that this management causes perverse effects and demotivation; that the individual evaluation by forced ranking *HRM* disturbs the collaboration and the diagnosis on the performance of the team. Indeed, the concept of achievement of the task prescribed in general terms suppose a good control of the contextual parameters... which is not inevitably the case when the activity has individually quantifiable results. A sabotage in reprisals of a perceived decision as unfair is always possible, but generally a minimum of wage co-operation is established¹⁴. However, the system reinforces the opportunities of collecting of the income formed by the cooperation within the team. Thus, the opportunist agent will be tempted to allot the merit of the common result to himself and will try to convince his superior to be the only one to obtain reward.

In fine, forced ranking *HRM* remains a good way of standardizing the lay-offs without incurring stock exchange sanction and while respecting the request for “socially correct”. The financial markets are thus satisfied not receiving signals of a bad management of the firm or of the decline of its outlets by the massive advertisement of massive lay-offs (Meschi 1996, 1997). The ENRON example (followed of a bi-annual ranking *out & out*) is characteristic of this interpretation if it is considered that the markets could be deceived by a total absence of revealing signs of faintness....

Any decision of management creates or destroys value. But what do we mean by *Value Creation*? How can one measure the epiphenomenon’s impact *HRM* when we can’t isolate it from a global strategy group? If causal relation may be established, have we the right interpretation model (e.g. which of the hen or chicken...)?

For *Arcimoles and Saulquin (2002)*, “three head ideas are in *Value Creation*: (i) the anticipation¹⁵, (ii) the arbitration between output and risk¹⁶, and finally (iii) the time factor¹⁷.”

- (i) Anticipation is possible only if we understand the systems of cause for purpose. However, the complexity of interactions between *stakeholders* induces many difficulties. The contingency of each situation appears when one tries to measure an effectiveness of work (e.g. it is dual in terms of (a) cost and productivity and (b) quality of the product manufactured). It is also difficult to reconcile the aspirations of the shareholder’s profit
- (ii) And the desire of low cost of customers. The clause “all things being equal in addition” thus seems not easily justifiable as regards to economy of work and *HRM*.
- (iii) If many studies (Pfau and Kay 2001, Easton and Jarrell 1998, Becker and Gerhart 1996, Becker al. 1996, 1997, Huselid and al. 1997, Huselid 1995) support that certain decisions are creative of value and stock exchange pledges

of performance, Sire and Guilbvert (2002) breaks up the *HR* contribution of management to *Value Creation* in three axes: (1) the management of individual competences, (2) strategic management, (3) the satisfaction of external *stakeholders'* expectations. They also underline the difficulties of measurement because three effects are simultaneous, integrated and interdependent. They thus warn against premature correlations (e.g. between output of a social policy and a stock exchange course or an economic profitability). As for the risk, it is often assimilated by the investors to the only financial weight of the wage bill whereas the obsolescent of competences, the difficulties of recruitment or the social conflicts are as important.

- (iv) The research of the output / risk balance is also carrying contradictions: the logic of the long term cost and the effectiveness will encourage the organization to preserve the employees who produce efficiently; the one based on short terms and effectiveness will encourage to layoff the temporarily useless employees to reduce costs¹⁸.

If a moderate policy of lay-offs makes it possible to fight against apathy, the detachment and fall of performance (Bajoit 1988, Brockner 1992)¹⁹ can also induce mercenaries' fickle behavior (Tiberghien 2001, Reichheld 1996). After the waves of lay-offs of the Nineties, the lost of the workers' confidence in their employers was expressed by a refusal of their faithfulness towards the company in return of a more attractive remuneration (the risk of lay-offs being perceived like the same risk whatever the firm is). When the leader's team is well provided in stock-options, the agency theory predicts that it will privilege the shareholders' interest to the prejudice of the other *stakeholders* (Charreaux 1997, Desbrieres and al.2000, Perdreaux 2000, Wirtz 2002).

Agency theory explains how to best organize the relationship between one party – the principal- who determines the work, and another party- the agent- who undertakes the work. Agency theory analyzes the cost of resolving two types of conflicts that can arise between principals and agents under conditions of incomplete information and uncertainty: adverse selection and moral hazard. Adverse selection is the condition under which the principal cannot ascertain if the agent accurately represents his ability to do the work for which he is being paid. Moral hazard is the condition under which the principal cannot be sure if the agent has put forth maximal effort (Eisenhardt, 1989).

The incitement of the representative agent (manager) to act in the principal's (shareholders) interest is here proportional to the importance of the premium expected in the event of “very good health” of company's stock quotation. This is why stocks-options must represent an important part of the income working group. The financial aspect of the performance will be therefore put forward and any managerial decision will be related to the possible effect on the value of stock exchange (Copeland & al.2000). On the contrary, employees, the wages represent the indispensable or fundamental income and remain the main incentive because the amount of all distributed participations is completely additional. Thus, the hierarchy will seek other ways of incentive aiming at transforming the obligation of means (e.g. the attendance), reserved to the contract of employment in obligation of results. To be done it will link intensity of the effort and level of the wages (Cahuc and Zylberberg 1994, Troussier 1993,...Macleod and Malcomson 1993) before juxtaposing threat of dismissal.

To summarize, forced ranking *HRM* results from the current neo-institutionalist (neo-hobbesian for Bowles 1985) and the theory of agency (in Williamson's sense 1985). The malfeasance and the bounded rationality encourage the agents (employers or wage earner) to be withdrawn from their obligations as soon as the contract could not be written so that none

of both parties have to stake to transgress it. The logic use of ranking by a firm looks like a hobbesian analyze of state as a necessary form of coercion: the hierarchy of the organization is based on rules which force each one to respect its commitment and the HRM of the leaders thus aims only the final economic performance. Although the states of nature are exogenous with the contract of employment, they force nevertheless certain choices (e.g. a recession causes no desired lay-offs of the economic situation)... But will the empirical checks corroborate the theoretical analysis?

2. Empirical checking and findings discussion

We will, in the first part, develop the methodology of the analysis with the index *Fortune 100* (2.1), then the one used with the *S&P 500* (2.2). In both cases, for a transverse analysis, we could break down the results into 10 Sectors:

Sector 10: Energy

Sector 15: Heavy Industry and of transformation (Chemistry, Metallurgy, paper)

Sector 20: Consumption goods and services.

Sector 25: Durable goods, Hotel, Car, Media, Great distribution...

Sector 30: Food, Drink, Drugstores

Sector 40: Bank, Finance & Assurances

Sector 45: IT (Soft & Hard).

Sector 50: Public Telecommunication

Sector 55: Distribution, additional services and Industry

2.1 With Fortune 100

Fortune 100 list comprises the hundred American most performant. They are classified with a weighting in term of profit, turnover, asset and market value. In this sample, it will be considered two groups: in the first one “classic *HRM*” (e.g. when mass lay-offs are conjunctural because economic slowdown) for the companies which do not use forced ranking *HRM* (this group is slightly majority 54,23 % over the period of 1996 to 2000); in the other one, the firms that practice “forced ranking *HRM*” (e.g. structural mass layoffs....biannual or annual). The research used the data of 142 firms over a five year period, to analyze the link between *the Market-to-Book value ratio and the ROE spread* (ROE-Cost of equity capital.) After reprocessing of the 671 observations (e.g. data), 542 will be completed and in conformity²⁰. The distribution in ten sectors is given in the table 2.

Insert Table 2: Breakdown

Methodology

One is place within the framework of the neo-classic financial theory with efficient markets hypothesis (e.g. capital flow depends on profitability related to risk) although independence between value of the firm and the financial structure is rejected. The method, used here, establishes for each company a fundamental relation between, on one hand, the market capitalization ratio²¹ and the net book value (e.g. $M/B = \text{market capitalization} / \text{book equity}$ also called “*Marris ratio*” which is the reverse of *Book to Equity Ratio*)²²; and on the other hand the capital efficiency (e.g. $r_c - r_a$ or r_c / r_a ; with (r_c) expected return on equity and cost of capital (r_a)). “This type of model of *Value Creation* (e.g. “*Strategic Planning Associates*”, “*Mac kinsey*” or “*Marakon associates*”...)”²³ was born in the USA in 1970, of the meting between research in financial theory..../.... and takeover bid of the years 1980 that made rediscover the roles of the shareholders in the strategy of company and of the activity of the cabinets of council on the subject (Hoarau 2000: 2)”.

Market value of equity “M” indicates the value of the present and future potentialities of the firm whereas “B” estimates the value compared to the last strategies(the number of the invested resources before is regarded as the equivalent of the *net book value*) The measurement is not absolute but relative to a potential of *Value Creation*. Historically, Berk

(1995) observes the existence of a relation between profitability and B/M. He considers that that should not be regarded as an anomaly with the following thinking:

- (1) The value of the firm measures the last *net book value*
- (2) One supposes a strong correlation between the amount of the investments and the finance return on capital employed,
- (3) The net book value of the firm should thus be strongly correlated with the amount of expected investments).

The book value therefore constitutes a substitute to expected investments. Thus B/M ratio is substituted for the expected investment / market capitalization and becomes a better measurement of expected returns than only the market value of equity. Batteau and Lasgouttes (1997) establish that the division of market capitalization (“M”) by the constant book equity (“B”) does not change the relation from which²⁴:

$$M = \sum_{t=1}^N \frac{CF_t}{[1 + E(r)^t]} \Rightarrow M / B = \sum_{t=1}^N \frac{CF_t/B}{[1 + E(r)^t]}$$

Three situations appear:

- (i) $M/B = 1$; it is the status quo
- (ii) $M/B < 1$; there is *Value Creation* (e.g. expected market rate of return (capital market equilibrium) is upper than WACC – weighted average cost of capital),
- (iii) $M/B < 1$; one notes a destruction of worth²⁵.

Several Anglo-Saxon strategic models bind the M/B ratio and the connection (or the variation) between return on equity (r_c)²⁶ and cost of capital (r_a)²⁷. We will use the model of the group “*Marakon Associates*” which connects the index M/B and the ROE spread (ROE – Cost of equity capital, e.g. ($r_c - r_a$)) (Thietart, 1990: 152; Hoarau, 2000: 3 and s.). With regard to the past, creation / destruction of value is thus determined by the variation ($r_c - r_a$) whereas Marris ratio (M/B) indicates the performance anticipated by the investors. The market estimates that four situations (classified more desirable with the least enviable) thus arise (cf. Figure 3 afterward):

[1] The Excellence: $M/B > 1$ and $r_c - r_a > 0$ (there is *Value Creation* with a return capital higher to cost of capital). The investors consider that these enterprises will maintain in the future their good past performances.

[2] The Revitalization: $M/B > 1$ and $r_c - r_a < 0$ (there is *Value Creation* although the cost of capital is higher than capital efficiency). The future performances are higher than those obtained before.

[3] The Decline: $M/B < 1$ and $r_c - r_a < 0$ (there is *Value Destruction* with cost effectiveness). The good former performances are on the decline.

[4] The Pitfall: $M/B < 1$ and $r_c - r_a > 0$ (There is *Value Destruction* with return on capital higher than cost of capital). For the markets, these firms will not be able to improve in the future their poor past performances.

Insert Figure 3: Marakon and Associates Model

“Fortune 100”²⁸ annually classifies the first hundred Americans groups by their weighted performance in terms of turnover, profit, asset and market value. That will be used as a list of reference to the study. Between 1996 and 2000, with the merging, acquisitions and bankruptcies game, 150 different companies integrated this index at least a year (142 provided to *Forbes* insufficient data for the analysis of *Value Creation* using the *Marakon Associates* model)

We will proceed to the calculations of “M/B” *Marris* ratio and the “ $r_c - r_a$ ” of each company, year by year, then to the averages and standard deviations from the whole list, the classic *HRM* and *FR* group. We will proceed to a *Pearson* correlation test in the search of a curve of tendency starting from a linear regression of order 1, $y = a * x + b + u$ (relation 3), with

$y = M/B$; $x = (r_c - r_a)$; (a) is the coefficient associated with the variable explanatory x ; (b) the constant model and (u): the remnant²⁹.

Results

The M/B ratio of all the sample is included between [0,0205; 10,30]. There is an average of 1,176 and a standard deviation of 1,66. The differential $(r_c - r_a)$ lies between [-0,0559; 0,1869]. It is as an average of -0,01 and a standard deviation of 0,05. The M/B ratio is more break up compared to its average $(r_c - r_a)$ but on a whole, the values including the extremes are completely similar.

Insert Table 3 ROE and Marris ratio

Pearson correlation test

After having tested the nullity of the Pearson correlation coefficient on the sampling ($r [-1; 1]$) which reflects the degree of linearity between the data M/B and $(r_c - r_a)$, we reject the assumption of nullity of r under a threshold of 5%. There is indeed a correlation between M/B and $(r_c - r_a)$ the coefficient which is associated is 0,7505 on the totality of the sample (0,8649 for the classic HRM group and 0,7055 for the FR group). The correlation is possible, thus the high values of the M/B series is associated to high values of $(r_c - r_a)$ and conversely.

Search of tendency curve

Linear regressions of M/B on $(r_c - r_a)$ have as equations³⁰:

$$M/B \text{ with classic HRM} = 31,12 (r_c - r_a) + 1,5 + u \quad \text{Relation 3 (with an } r^2 = 0,75)$$

$$M/B \text{ with ranking HRM} = 32,36 (r_c - r_a) + 1 + u \quad \text{Relation 4 (with an } r^2 = 0,72)$$

Which u is a remnant.

If the polynomial of the second order is calculated, one will obtain an r^2 lower than the one before (e.g. $r^2 = 0,57$ instead of an $r^2 > 0,7$). It is therefore useless to continue the regression. Notice that the r^2 are very high for an econometric study (e.g. compared to the other university work or completed by consultants... Hoarau 2000: 15). The explanation is due undoubtedly to the fact that the studied sample considers the 100 best American groups. However, a reprocessing of the countable asset (B) seems to be necessary. Indeed, the axis Excellent/Pitfall certainly indicates bad immaterial assets (although Chung and Pruitt 1994 studies have considered the weakness of bias when the only balance-sheet results are used)

Figure 4 (afterward) respectively represents the Marakon Associates' model (applied to fortune 100 company list from 1997 to 2000) for the classic *HRM* samples and forced ranking *HRM*. It shows curves of completely similar tendencies (e.g. almost parallel). With all 542 data we obtain³¹:

Insert Table 4 Classic HRM sample group

Insert Table 5 Forced Ranking HRM sample group

Insert Figure 4: Marakon and Associates Model for Fortune 100 company list

It is noted that companies using *forced ranking HRM* absorb well the crisis and the peak of lay-off of 1998 since the number of firms in the Excellence category grow from 1996 until 1999 before falling of 27 % in 2000. Reciprocally for the classic *HRM* the number of firms in the Excellent category starts by falling of 9,1% in 1998 (adjustment with delayed-action of the wage bill) to set out again with the rise of 17,2 in 1999 while stabilizing in 2000.

Therefore, it seems that the structural mass lay-offs is more adapted when an economic slowdown occurs and asks for fast reductions of manpower. At the contrary, when economic growth the best performances seem to be obtained by the firms using a classic *HRM* (e.g. where lay-offs are simply conjunctural).

Evolution of the number of employees

One attends a progression of 11,3 % of the number of employees for the classic *HRM* versus 2% for forced ranking *HRM* group.

Insert Table 6: Number of Wage Earner Posts

That could also validate the assumption that forced ranking *HRM* induces a negative reputation (Kreps, 1996) susceptible of bothering managers at the time of their future recruitments. Indeed, at the time of an economic revival, the future employees will choose the company preferably managed with least aggressive possible HRM (e.g. classic rather than rank & yank), which will handicap the recruitments and therefore the productivity of the sample of firms' *forced ranking HRM*. In other words, the reactivity, permitted by structural lay-offs and profits in term of quoted *Value Creation* caused by the absence of advertisement of mass lay-offs (because the markets are there now risk-adverse³², do not compensate, at the time of a revival of activity, the difficulty of recruiting again personal.

2.2 Standard & Poor

In order to validate our first results, we now will test our assumption, crosswise and longitudinally (1996-2000), on a more extensive sample, the *S & P 500*. Does a simultaneity

exist between stock exchange performance and forced ranking (e.g. with structural mass lay-offs) when an economic slowdown occurs and ask for fast reductions of manpower? On the contrary, when economic growth are the best performances obtained by the firms which use a classic *HRM* (e.g. where lay-offs are simply conjunctural)? In other words, does forced ranking *HRM* create more value added for the shareholder than the other *HRM*?

Methodology

Our next choice is the analysis of Standard & Poor's (*S&P*) 500³³ index and we bear it because:

- a) 500 is a sufficiently high number of values to analyze two significant group of firms (one using forced ranking HRM 20% and the other classic HRM 80%)
- b) The sectorial cover of the 500 American companies which compose it is broad.
- c) The five hundred values represent firms (often leaders on the market) which the technostructure is sufficiently important for an installation of systems of wage performance evaluation whatever they are.
- d) The financial activity around the index is important
- e) The index composition is stable³⁴ and the methodology employed for its evaluation is explicit (www.advisorinsght.com/pub/indexes/guidelin.htm).
- f) Moreover, the quoted value of all the actions is easily found (and free) on Internet (Yahoo.fr heading finance), the most interesting being to obtain adjusted quotations according to the splits, dividends, acquisition-fusion-sale "free" bonus shares distribution.... with a constant and coherent methodology.

The total of the raw data is of 513 firms (21.25% practicing the FR). The minimum of significant data (at least 3 years, 1997, 1998 "meaningful" year & 1999, over the 5 planned)

is obtained with 453 firms, of which 89 (whether 19.65%) use the forced ranking *HRM* and 364 (80,35%) adopted another mode of *GRH*.

On the one hand, the raw data of the panel considered are 513. Values entered the index, other left for bankrupt reason such as ENRON, or amalgamated or were repurchased: Polaroid, AMOCO, Data general, Digital equipment, GTE, MOBIL, McDonnell Douglas, Seagate, Texaco, Tricon Global Restaurants, Union Carbide, and Westinghouse electric.

Insert Table 7: Sectorial distribution of two groups

We note that forced ranking *HRM* is relatively uniformly distributed in the *S&P 500* with a representation a little more pronounced in sectors 20 and 45. The sectors 25 to 40 prefer, as for them, a more traditional management. Let us advance the assumption of a stronger anchoring in the practices of management for the durable goods 25 and financial services 40 (e.g. must one change a usual management which works well), whereas the corporate culture is less definite in the services 20 and the new technologies 45 because of the recent developments and changes which they know.

Longitudinal analysis

On the whole, the stock exchange performance of the sample of the 89 firms using forced ranking *HRM* management perform better the ones of the 364 classic *HRM* firms until 1998 (of 3% for 1996 and 1997; of 7,5% for 1998, an invert tendency in 1999 with -3%...). From 1998 the analysis is exogenously complicated by an enormous increase (standard deviation) in Stock Exchange. One of the explanations holds in the bursting of bubble internet, all the technological values overvalued strongly will drop with them all the markets.

Another is the entry in the recession. However, the performances of forced ranking *HRM* are more homogeneous

Insert Table 8: Standard deviations

The variation in standard deviations show that the crisis affects in very different ways each of the companies belonging to the *S&P 500*.

Transversal Analysis

The results will indeed show huge disparities. The sample forced ranking *HRM* perform better than classic *HRM* until 1998, before a violent one inversion of tendency. In less than 2 years, the classic *HRM* sample not content to perform better, makes up with its lost time and takes even a good advance. At the exception of heavy industry (sect.15) where continue profits of productivity with stable markets calls for anticipated recurrent lay-offs (e.g. the essence of forced ranking *HRM*).

Insert Table 9: The Results

3. Conclusion

On *Fortune 100* and *S&P 500* index, there is on average almost no difference in the Stock-Exchange *Value Creation* between 1996 and 2000, when the firms used *HRM* forced ranking or a classic *HRM*. Let us note however that if forced ranking confirms that it is well adapted to the sector 15 (heavy industry cumulating foreseeable of the outlets and the profits of productivity), no other significant difference is noted for the remainder of the economy.

That confirms, as a need, therefore that forced ranking is not a “miraculous” management ! We could also add to the sight of the bankruptcies of Enron and WorldCom both followers of the forced ranking that the *HRM* exacerbate the opportunism of the executive-level managers which wants to dissimulate instabilities, endogenous or exogenous, in Value Creation of their firms in order to continue to increase their stock-options’ value.

On the other hand, at the time of an economic slow down, the analysis longitudinal of the average performances of the two groups shows a correlation between the use of ranking and higher *Value Creation*. Indeed, the ranking HRM makes it possible to adjust very quickly their workforce with the economic situation. Conversely at the time of a recovery, the classic HRM appears to be the most performant. The best conceivable explanation is to consider that company’s reputation produces negative effects on recruiting when ranking HRM it is used and when economic fast growth back. Indeed, the happiest working-bees execrate the employees without pity with poor performers. Therefore, when the employees have the choice, they prefer to be engage by firms which a painless HRM (e.g. *a least aggressive as possible*). Our assumption is thus corroborated what ever the method of analysis of performance. The investors when they have the feeling of the return of the growth, should therefore invest in the firms which manage with a classic HR, and when they believe in slowdown of the economy in the firms which use forced ranking, forced choice or similar HRM methods.

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Table and figures

Figure 1: Forced Ranking Bell Curve

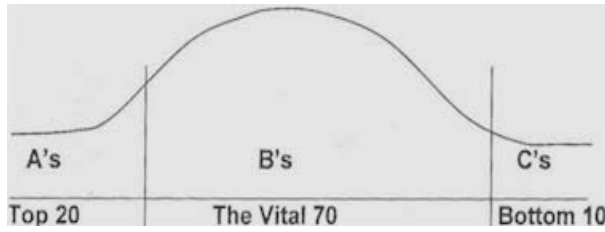


Figure 2: Performance and job security level

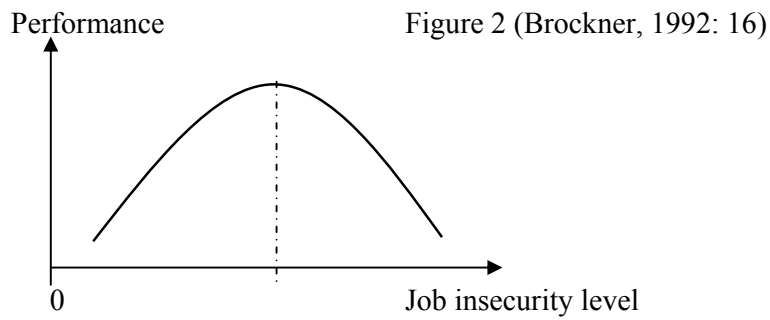


Figure 3: Marakon and Associates Model

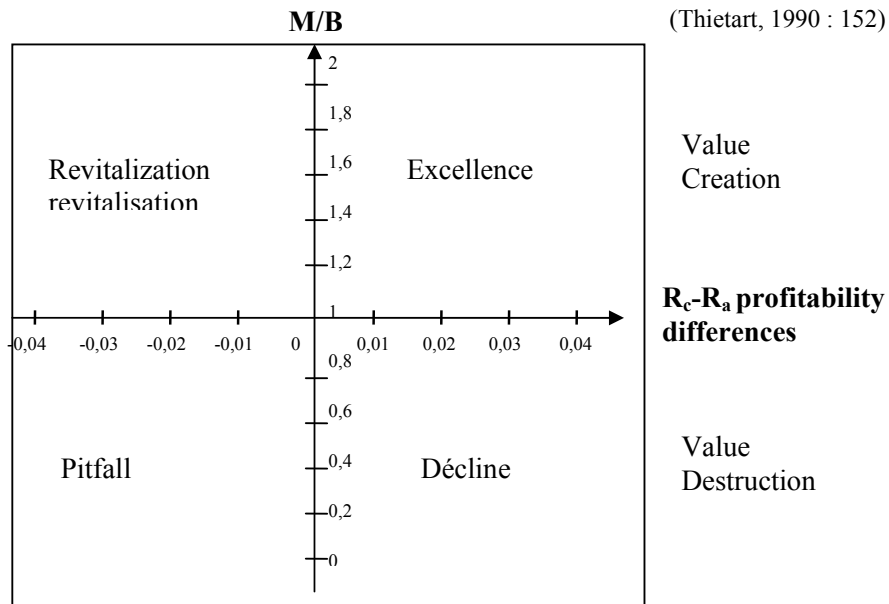


Figure 4: Marakon and Associates Model for Fortune 100 company list

With 542 observations' "fortune 100" from 1996 to 2000.

--- and O 331 Firms with "classic HRM" 61,07%
 — and □ 211 Firms with "forced ranking HRM" 38,93%

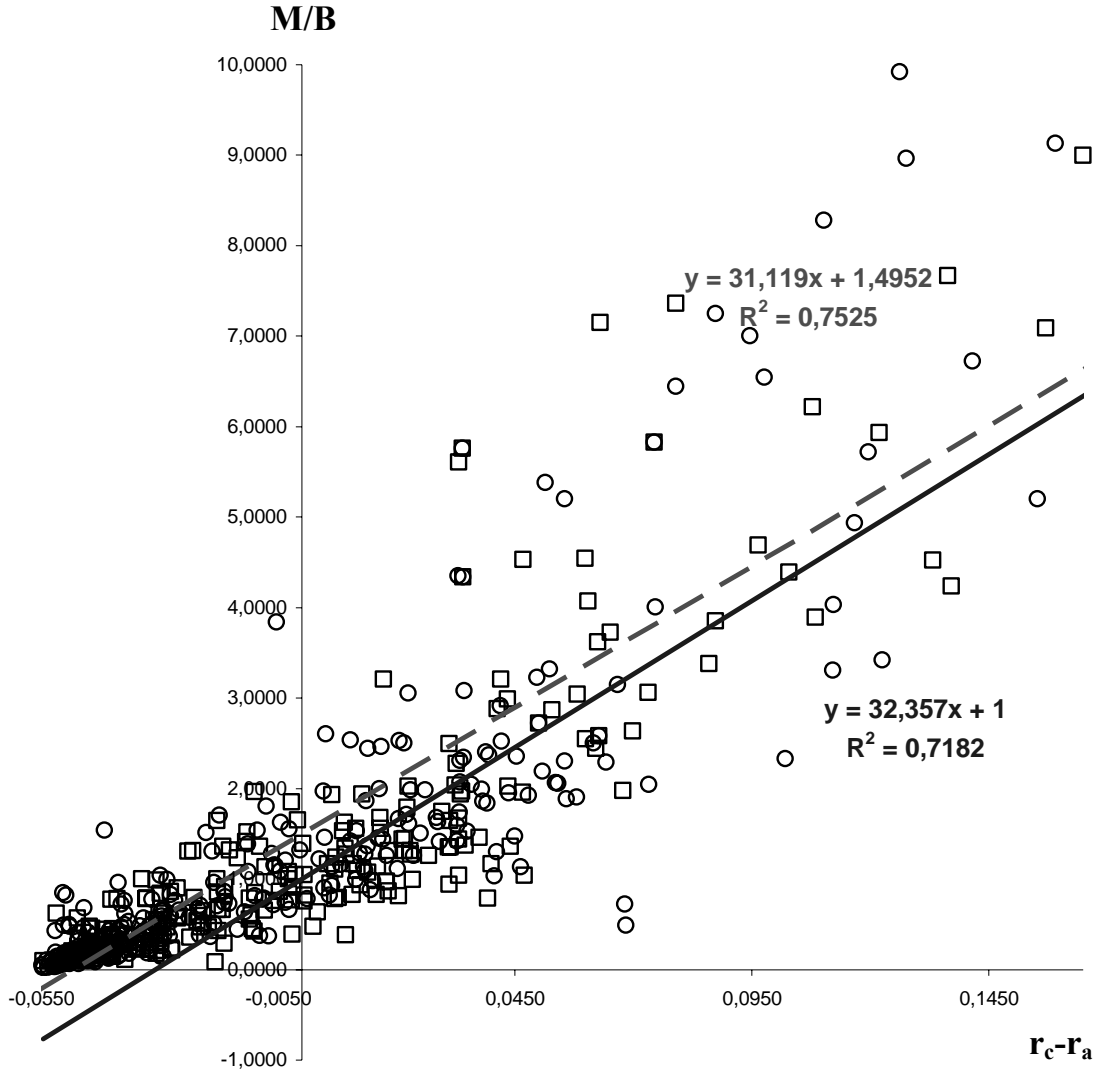


Table 1: Mass Lay-offs

Year	Real Lay-offs	Lay-offs announced	Number of mass lay-offs
1996	1184355	957745	5697
1997	1146115	1041907	5683
1998	1227573	1232384	5851
1999	1149267	972244	5675
2000	1170427	1018700	5620
2001	1751187	1612923	8350

Table 2: Breakdown

<i>Sectors</i>	<i>Firms with classic HRM</i>	<i>% classic</i>	<i>Firms with Forced ranking HRM</i>	<i>% ranking</i>
10	2	2,60	7	10,77
15	2	2,60	2	3,08
20	5	6,49	10	15,38
25	3	3,90	10	15,38
30	12	15,58	3	4,62
35	8	10,39	6	9,23
40	35	45,45	6	9,23
45	1	1,30	13	20,00
50	6	7,79	7	10,77
55	3	3,90	1	1,54
Total	77	100%	65	100%
	54,23%		45,77%	

Table 3: ROE and Marris ratio

	$r_c - r_a$ Classic HRM	$r_c - r_a$ Ranking HRM	M/B Classic HRM	M/B Ranking HRM
Min	-0,056 (Equitable Cos. 1997)	-0,055	0,021 (Salomon 1996)	0,086 (Locked Martin 1996)
Max	0,1869 (Coca cola 1998)	0,1866 (Bristol-Myers squib 2000)	10,30 (Coca cola 1998)	10,89 (Scherng Plough 1999)
Moy.	-0,0109	0,0077	1,156	1,563
	Moy. -0,0036		Moy 1,316	
S-dev.	0,05	0,06	1,66	3,60

Table 4: Classic HRM sample group

	<i>Classic HRM</i>		1996	%	1997	%	1998	%	1999	%	2000	%
Excellence	97	29,3%	19	28	22	30	18	27,3	20	32	18	31
Revitalization	19	5,8%	2	3	2	2,5	5	7,6	5	8	5	8
Pitfall	206	62,2%	43	62	48	65	42	63,6	38	60	35	59
Decline	9	2,7%	5	7	2	2,5	1	1,5	0	0	1	2
Total	331	100 %	69	100	74	100	66	100	63	100	59	100

Table 5: (Forced) Ranking sample group

	<i>Ranking HRM</i>		1996	%	1997	%	1998	%	1999	%	2000	%
Excellence	84	39,8%	14	36	19	40	19	43	19	45	13	33
Revitalization	14	6,6%	2	5	5	11	4	9	1	2	2	5
Pitfall	95	45%	20	51	17	36	16	36	20	48	22	56
Decline	18	8,6%	3	8	6	13	5	11	2	5	2	5
Total	211	100 %	39	100	47	100	44	100	42	100	39	100

Table 6: Number of wage earner posts

	Wage-earners managed with classic <i>HRM</i>	Wage-earners managed with <i>Forced ranking HRM</i>
1997	4368,9	5953,4
1998	4758,8	6134,6
1999	4944,6	6316,6
2000	4922,7	6063,1
	Thousands	Thousands

Table 7: Sectorial distribution of two groups

	Forced ranking HRM		Classic HRM		<i>Gap between group 1 and adjusted 2</i>
	% group1	Number	Adjusted Number with group 1	% group 2 Total 364	
%total sector 10	0,056	5	4,361	0,049	<i>No significant</i>
%total sector 15	0,067	6	6,141	0,069	<i>No significant</i>
%total sector 20	0,169	15	11,748	0,132	+ 3
%total sector 25	0,146	13	17,355	0,195	- 4
%total sector 30	0,079	7	6,141	0,069	+ 1
%total sector 35	0,09	8	8,099	0,091	<i>No significant</i>
%total sector 40	0,067	6	15,13	0,17	- 9
%total sector 45	0,225	20	12,46	0,14	+ 8
%total sector 50	0,022	2	1,691	0,019	<i>No significant</i>
%total sector 55	0,079	7	5,874	0,066	+ 1
Total firms	453	89	89	100%	0

Table 8: Standard deviations

	1996	1997	1998	1999	2000
<i>Standard deviation's forced ranking HRM</i>	0.2697	0.1359	0.3954	0.3218	0.0980
<i>standard deviation's total</i>	0.2692	0.1575	0.6096	1.1578	0.1883
<i>Standard deviation's classic HRM</i>	0.2705	0.1630	0.6621	1.363	0.1958

Table 9: The Results

Sect.	FR 96	NFR 96	FR 97	NFR 97	FR 98	NFR 98	FR 99	NFR 99	FR 00	NFR 00
10	0,31261	0,45949	0,02077	0,12369	-0,0961	-0,325	0,22923	0,51745	0,19247	0,51023
Firms' stocks with forced ranking HRM perform better ↑ to 1998, then downturn after ↓										
15	0,21155	0,0344	0,10526	0,05878	-0,0812	-0,0262	0,15873	0,08622	-0,0468	-0,0602
Firms' stocks with forced ranking HRM always perform better										
20	0,25818	0,25984	0,18963	0,34244	-0,0288	0,15509	0,09419	-0,1312	0,13156	0,28095
Firms' stocks with forced ranking HRM perform better ↑ to 1997, then downturn after ↓										
25	0,17294	0,24951	0,37588	0,45718	0,24595	0,38202	0,02319	-0,021	-0,0602	0,24923
Firms' stocks with forced ranking HRM perform better ↑ to 1996, then downturn after ↓										
30	0,39252	0,25269	0,40819	0,31244	0,23334	0,22405	-0,1015	-0,224	0,03232	0,27217
Firms' stocks with forced ranking HRM perform better ↑ to 1998, then downturn after ↓										
35	0,24703	0,1063	0,40346	0,30165	0,34763	0,35955	-0,0759	0,08366	0,151	0,44026
There is equality from 1996 to 1997, then Forced ranking HRM perform better ↑ in 1998, then downturn after ↓ from 199 to 2000										
40	0,45594	0,41147	0,43675	0,45043	0,57617	0,12277	0,13658	-0,0803	0,21011	0,39855
Le forced ranking HRM perform better ↑ to 1999, then downturn after ↓										
45	0,60191	0,67232	0,52121	0,1909	1,07354	0,94335	0,68484	1,46714	-0,2078	0,11878
Firms' stocks with forced ranking HRM perform better ↑ to 1998, then downturn after ↓.										
50	-0,187	0,0055	0,47473	0,43646	0,46619	0,41298	-0,0354	0,64317	-0,3127	-0,1959
There is equality from 1997 to 1999, then Forced ranking HRM downturn strongly after ↓.										
55	0,26634	0,13005	0,2882	0,1569	0,0832	0,14508	0,09578	0,13645	0,10621	0,5355
Firms' stocks with forced ranking HRM perform better ↑ to 1998, then downturn after ↓.										

FOOTNOTES

¹ See also Pfeffer 1997, 1998; Rynes & Gerhart 2000; Brown & al. 2000; Chingos 2002.

² Matthew Boyle, *Performance Reviews: Perilous Curves Ahead*. *Fortune Magazine*, May 28, 2001.

³ www.peoplesoft.com/corp/en/ent_stra/articles/watsonwyatt.asp et.... /articles/hcm.asp.

⁴ The 360 degree feedback (or Multi-Rater Assessments) is a tool for appraisal evaluation. It needs to know how others view our work but we want the information in a kind and gentle fashion. This multi-source feedback method provides a comprehensive perspective of employee performance by utilizing feedback from the full circle of people with whom the employee interacts: supervisors, subordinates and co-workers. It allows has a manager to compare his own evaluation of an employee with the perception of his entourage. The appraisal preparation form consists from 40 to 120 questions. 180 degree is the same but restrained and the 540 degree implies also customers and suppliers. Those points of view are confronted and synthesized.

⁵ Alias top grading, rank and yank, forced choice or forced distribution.

⁶ “The performance appraisal is a process that identifies, evaluates, and develops employees’ performance to meet employees and organisational goals (Dessler 2000: 152).”

⁷ Alias top grading, rank and yank, forced choice or forced distribution.

⁸ A stock option is an option in which the underlying security is the common stock of a corporation, giving the holder the right to buy or sell its stock at a specified price by a specific date. Also, it is a method of employee compensation that gives workers the right to buy the company's stock during a specified period of time at a stipulated exercise price.

⁹ The principal generally appreciates, on the on hand, the effort according to a simple standard which leads to a weak dispersion of the judgments (“centrality bias or similar bias”), and in addition, the poor performances which will be overestimated because it is more pleasant to reward an agent than to punish it (“leniency bias or average rating error”). The principal may also judge with inadequate information, halo effect (e.g. tendency to appraise all aspects of behavior or character on the basis of a single attribute) or constant and systematic bias.

¹⁰ For Ford the high performer employees (A) are 10%, the intermediates (B) 75% and the “under-performants” or poor performers (C) 15%.

¹¹ They are two different logic of elimination forced. Most current is relative, x% of paid most badly classified are laid off whatever their absolute performance. The other is absolute compared to the minima fixed by the superior and only those which do not exceed this threshold are laid off. In the event of reduction of manpower of the economic situation, their destiny is common: most badly classified will be always left first!

¹² Moreover, if an ordinal classification of the first to the last employee is carried out without prohibitory cost, how has one to compare the performance of a white-collar and that of a blue-collar worker however both necessary to the good function of the company?

¹³ American firms are the subject of proceedings for discrimination because the forced ranking *HRM* would have been directed unfavorably against unquestionable categories of employees: Old, minority, women... Ford for example was condemned to 10 million dollars for 530 paid (www.bonforums.com/discrimination/), for GM, Conoco, Microsoft, Akron...the legal proceedings are taking place.

¹⁴ Although within the firm two dynamic behavioral contradictions cohabits (for example; the individual sense of responsibility can appear paradoxical with solidarity in the team work) co-operation methodological individualism (within the meaning of Meschi 1996:87) emerges

¹⁵ Only is taken into account the output awaited by the investors and not that noted

¹⁶ At a financial level, a decision of management is compromised between the hoped output and risks it perceived.

¹⁷ Indeed, a contradiction can appear between the short and long term.

¹⁸ Advertisement of lay-offs perhaps perceived differently (1) It is *defensive* when the leader's lack of foresight leader (and/or the institutional framework) incite reorganizations with a delayed-action and from a point of view of short term. The investors are very risk-adverse with the strikes and the overexposure in media of usual social conflicts on the matters (2). At the contrary, the suppressions of employments realized of the expectation of a decline of the productivity are *offensive* actions accepted better by markets, across the Atlantic in particular (Hubler and al.2001, 1998...)

¹⁹ For Thevenet and Neveu (2002) the motivation in an employment varies in 4 sentences: (1) the training (6 months to 1 year), (2) the maximum implication (2 at 3 years), (3) the implication/detachment (installation in the routine during 1 to 2 years), (4) the detachment (or "officialization") with a minimum service (1 year or more) and lower performances.

²⁰ The sector 45 IT (Soft & Hard) was removed because 13,5 of the companies on 14 manage with forced ranking while creating value enormously, which disequilibria out model (e.g. Applied Material, Cisco, Compaq, Dell, EDS, HP, Intel, IBM, Oracle, Microsoft, Sun Micro, Texas Instrument, Xerox; only 3M does not use in all its divisions the rank & yank).

²¹ Market capitalization is calculated by multiplying stock price by the number of shares outstanding.

²² Fama & French (1992, 1993, 1995) shows that the M/B ratio has an explanatory factor of probabilities of actions superior to "BETA" of the MEDAF, on the American market. They show in 1995 that a high M/B ratio results in weak profits (and vice versa) and a certain financial vulnerability on the firms (or an overreaction of the investors).

²³ e.g. the model of the Strategic Planning Associates and that of Mac Kinsey formalized starting from work of Fruhan (1979) will not be used here

²⁴ CF is the shareholders' returns on day $t = (1, 2, \dots, N)$ and $E(r)^t$ is expected rate of return related to risk.

²⁵ "A dollar invested today in the company of which the $M/B \text{ ratio} > 1$ creates more value than a dollar invested in the company with $M/B < 1$. The companies which create value release a profitability of capital higher than the one required by the shareholder (e.g. the capital cost). Those which do not satisfy this

minimum profitability destroy value and see their quoted value being adjusted on the level which makes it possible to obtain whatever the book equity (Hoarau 2000:3).”

²⁶ Return on equity(r_c) = (net attributable profit/net book value)

²⁷ The capital stock own was calculated on the arithmetic means of 48 sectors starting from the MEDAF (for a recall of the assumptions Hoarau 2000: 7-8) over 5 years for the year 1990 (Fama & French 1997: 173 or Bancel & Ceddaha 1999: 75).

²⁸ [www. forbes.com](http://www.forbes.com)

²⁹ And as a need a quadratic polynomial is a polynomial of degree 2: $y = a*x^2 + b*x + c + u$ with $y = M/B$; $x = (r_c - r_a)$; a: the coefficient associated with the explanatory variable x^2 ; b: the coefficient associated with the explanatory variable x , c: the constant of the model and u: the remnant.

³⁰ M/B classic HRM = 29,991 $(r_c - r_a) + 1,492 + u$ (with an $r^2 = 0,7305$), M/B ranking HRM = 38,765 $(r_c - r_a) + 1,622 + u$ (with an $r^2 = 0,4627$) without any withdrawal of data (631 observations)

³¹ For memory the 67 data of sample group take away and concerning the sector 45 “IT” showed Excellence 60, Revitalization 1; Pitfall 3; Decline3. All these companies have a Marris ratio higher to 4.

³² Meschi 1996,1997; Watson Wyatt 2002 and the study of Mercer Consulting (800 American firms in 35 sectors) show that the companies which lay-off with all will reduce the costs see their Stock Exchange quotations progressing of 16 % against 26% for the other companies. The Stock Market thus is less and less convinced by the companies which are based on strategies lay-offs to increase their benefits

³³ For the index composition cf. www.mobydata.com/comp/spx.htm).

³⁴ From his creation in 1926 until the 15/08/2000, 101 firms have integrated www.spglobal.com/GeneralCriteria.pdf.