

# **HR policies and management tools: proposal for a framework for dynamic analysis**

## **ABSTRACT**

In an attempt to respond to the current stakes in business, Human Resource Departments regularly propose new management tools supposed to favour the involvement of staff and develop their effectiveness. An analysis of the effects of these tools shows that they are more often effective but that the dynamic effect is often short-lived. This article nourishes reflection on this phenomenon by developing the idea that the dynamic analysis of the use of management tools helps better to understand the dynamics of the development of HR policies of a business. A review of the literature indeed shows that an analysis of HR policies very often under-estimates the role that management tools play in this case. After having specified and analysed the requirements of this role, this article presents a case study which helps to identify the initial elements of an analytical framework of the dynamics of a management tool and proposes solutions in an attempt to remedy the fact that the HR policy it is intended to develop rapidly runs out of steam.

## INTRODUCTION

For more than fifteen years, work on the factors of competitiveness of businesses has shown that Human Resource Management (HRM) is a strategic lever in the improvement of the performance of organisations (Bowen & Ostroff, 2004; Lawler, 2005). So as to meet this challenge, the management here made determined efforts to develop new HR policies (pay-for-performance plans, variable compensation systems, pay-for-skill tools, etc.) which are supposed to favour the involvement of staff, their motivation, their effectiveness, etc. The work developed on these policies shows that that they are effective (cf. for example, Heneman, Ledford & Gresham, 2000) but that their dynamic effect is often short-lived. Different explanations for this phenomenon have already been given. It would thus seem that the policies adopted in imitation (Di Maggio & Powell, 1983) of the managerial fashion (« flavour of the month ») (Midler, 1986) run out of steam particularly rapidly because they do not always correspond to a real need within the firm. In the same way, those policies which do not respect the criteria of procedural justice and which are therefore perceived by the staff as unfair on the remuneration level would seem to lose their effectiveness very quickly (Pfeffer, 1998).

This article will develop a complementary explanation in a attempt to explain these difficulties and proposes to look with more attention at the place that the management tools take up in this set of dynamics. The review of the literature on the subject indeed shows that, in an analysis of the dynamics of HR policies, two major approaches may be distinguished: the universalist approach and the contingent approach (Delery & Doty, 1996; Dewar & Werbel, 1979). By detailing their content, it is possible to affirm that they make the management tools play an important – but badly known - role. After having shown that in fact they are mobilised fairly strongly to impulse and maintain the dynamics of the HR policies

proposed, it may be asked: whether an analysis of the dynamics of the conception and use of management tools may not provide a key for the analysis of the dynamics of the development of HR policies in a given enterprise or firm?

After having presented and analysed the work which today enables this question to be dealt with, elements drawn from an exploratory case study over ten years, of the design and use of a tool for the management of skills in a firm will be provided. Even if these are once again nothing but points of reference which need to be confirmed or denied, the data collected in the context of this case study enable the phases in the dynamics of this tool to be identified, the content and the nature to be specified and the initial elements providing a key to the analysis of the dynamics of the remuneration and career management policies in this firm to be presented. This article will use this initial data so as to finally propose ideas for improvement so as to provide a response to be made to the blockages and loss of steam that have been observed in the HR policies in this enterprise.

## **1. ANALYSE THE DYNAMICS OF THE HR POLICIES: WHAT IS THE PLACE FOR MANAGEMENT TOOLS?**

In the analysis of HR policies, their effects and their dynamics, it is usual to distinguish a universalist approach (11.) and a contingent approach (12.). It is, however, less current to analyse in parallel the content of these approaches and the place that they reserve for management tools. By building this link, an attempt is made in this part to make progress in the understanding of the different modes for analysing the dynamics of the development of HR policies in organisations.

### **11. Management tools: a major lever in the universalist approach?**

After having specified the nature and the objectives of the universalist approach (111.), an attempt will be made to show that the management tools would seem to play a very important role in the implementation of this approach (112.)

*111. The universalist approach: identify the « best practices »*

The universalist approach posits that some HR practices are always better than others, whatever the firm considered. This approach therefore has the objective of identifying the « best practices », those which provide systematically to organisations an increased competitiveness and effectiveness, and ensures the diffusion of it in the univers of managers (Delery & Doty, 1996). These authors quote as particularly representative examples of this approach the work of Pfeffer (1994) and Osterman (1994). Some very recent work, as is the case of « Moneyball » (Wolfe, Wright & Smart, 2006), also report relatively clearly on the logic of this approach. Through this latest case study, the affirmed objective of your authors is in fact to propose «a new vision of HRM in various types of organisation (p.111)» and «overcoming resistance (p.117)» or to «provide a competitive advantage (p.118)» (Wolfe, Wright & Smart, 2006), that is to say to propose competitive solutions to respond to challenges which would seem to exist in an identical way in all organisations or, at least, in a large number of them. The logic of your authors is clear here: this case study would seem intereting to them for it responds to the problems the majority of managers are supposed to encounter.

*112. Management tools: a channel for the diffusion of these “ best practices” ?*

Even if this analysis is less frequent, it would seem particularly important to look with precision at the place that the management tools take up in this universalist approach. The most often, they are defined by examples rather than by strictly built definitions. Thus, Delery & Doty (1996) evoke “seven practices that are consistently considered strategic HR practices:

internal career opportunities, formal training systems, appraisal measures, profit sharing, employment security, voice mechanism, and job definition” without specifying whether these practices may be considered as being management tools and without defining exactly one or other of these terms. In another article which covers explicitly management tools, Rigby (2001) also starts with a presentation of examples of management tools such as « Strategic planning, benchmarking, pay for performance, outsourcing, etc. ». He only very rapidly mentions a conceptual definition which would consider that management tools are «a set of concepts, processes, exercises and analytic frameworks» (Rigby, 2001, p.139). Even if it is usual that the definitions of management tools are particularly broad (for they effectively have to cover a vast range of systems), it would seem preferable to retain a definition which englobes these elements by specifying that management tools are «a formalisation of organised action» (Moisdon, 1997, p.12) but which specifies also that the aim of this formalisation is to «transform the behaviour of the players» involved in this organised action (Reynaud, 1993, p.237).

If the universalist approach is analysed in detail, it would appear then that its objective – proposing viable solutions for all firms – is made achievable thanks to two types of generalisation. The first – has been mentioned above – is the generalisation of problems. In this approach, all managers are supposed to encounter the same difficulties, such as «overcoming the resistance» of employees or «providing a competitive advantage» to the firm (Wolfe, Wright & Smart, 2006). The second generalisation is that of the tools. These are the central element which supposedly provides an effective response to these difficulties whatever the firm, or its national or social context. It is because a management tool is considered as producing the same effects in front of a difficulty in every case where it is implemented that the universalist approach may envisage providing effective responses for all firms (Brabet, 1993). The essence of the responses proposed by the universalist approach corresponds in fact

to tools. It is the «formal training system», the «appraisal measures» or the «voice mechanism» which are supposed to be effective and necessary in all firms, whatever they are (Delery & Doty, 1996). Whereas often under-estimated, management tools play a fundamental role in the diffusion of managerial «best practices». They make it possible and they also favour it as a result of the identical formatting that they impose (Thévenot, 1984). The place of computer software in the homogenisation of managerial practices is thus, for example, not to be under-estimated here (Pichault, 2000). Even if their effect is less clear, the introduction of individualised assessment systems or formalised training systems (as an alternative to assessment and training systems which could be more collective and more informal, for example) play the same supporting role in the diffusion of managerial «best practices».

So as to highlight the central place that management tools take in this universalist approach, certain authors have even proposed renaming this universalist logic: «instrumental approach» (Brabet, 1993). In fact, it would appear that this approach makes the implicit hypothesis that the management tools that it proposes to diffuse embody universal principles – such as those for example which govern mechanics or physics – and that problems that may be encountered during their use are necessarily linked to the poor implementation of these principles or their insufficient specification. It is for this reason that the main objective of this approach is most often to progress towards the perfecting of the management tools that may be proposed to managers. The case of *Moneyball* which makes a plea for giving a larger place to the statistical method in management once again reports this logic relatively clearly (Wolfe, Wright & Smart, 2006).

## **12. The place of technology (and management tools) in the contingent approach**

The « Moneyball » case has been the subject of particularly well-substantiated commentaries in the very same number of the review in which it was published (Human Resource

Management, 45(1)). These discussions report on both the interest that the universalist approach raises – which effectively nourishes the reflection – and the place that the contingent approach has taken in the reflection on HR practices. Indeed, the discussions on this case in no way aim at casting doubt radically on the «best practices» which may be drawn from the *Moneyball* case but rather at identifying collectively the contexts and the situations in which these lessons really provide a response to the practical difficulties of managers. For example, Brockner & Flynn (2006) analyse to what extent «the sabermetrics method» which is used in this case provides an improvement in all types of firm, whereas Dolan (2006) wonders, for example « are *Moneyball* lessons applicable to management of business schools » (p.133). These discussions show clearly that today the transfer of «best practices» takes place cautiously, after it has been verified that they seem to correspond with the needs of the organisation in which they are to be introduced. This argumentation, that we can call «reasoned universalism» alone demonstrates the importance that takes today the contingent approach. These authors have in common this classical idea of the contingent approach as management modes which may be good for certain organisations and not necessarily so for others. After having presented the content of this contingent approach (121.), the main results of the work that this approach has produced on the relationships between organisation and technology will be shown in detail and will be compared with reflections on management tools (122.)

*121. The contingent approche: identify the congruency between the different features of the organisation*

The contingent approach proposes another way of analysing HR practices, their development and their dynamics (Butler, Ferris & Napier, 1991; Lengnick-Hall & Lengnick-Hall, 1988). It is based upon the observation that organisations may be at the same time effective while mobilising highly diversified HR practices. The recent work of Brewster, Wood, Brookes &

Van Ommeren (2006) shows, for example, that the size of an HR department varies in relation to the sector in which the organisation operates as well as the country in which it is located.

Contingency arguments are more complex than universalistic arguments because contingency arguments imply interactions rather than the simple linear relationship incorporated in universalistic theories (Delery & Doty, 1996). Indeed, the contingent approach postulates that the variations observed in the effective HR practices may be explained by several characteristics specific to the firm such as its size, its age, its structure, its sector of activity, the technology it employs or its strategy (Woodward, 1965 ; Lawrence & Lorsch, 1967 ; Mintzberg, 1979 ; Miles & Snow, 1978 ; Schuler & Jackson, 1987). The idea is then that the firm would only experience a real increase in effectiveness if the HR policies that it adopts are coherent with other aspects of the organisation (size, sector, etc.), these characteristics themselves being in interaction one with another and requiring a large degree of consistency between themselves (the technology which may be used itself depends upon the structure or the size of the firm, etc.).

#### *122. Technology and the organisation: a coherence difficult to build*

Contrary to what has been observed with the universalist approach, the presentation of the contingent approach does not lead directly to a discussion on the management tools in the development of this logic. Indeed, it firstly puts the accent on the analysis that managers must make of the internal degree of coherence of their organisation (Gomez-Mejia & Balkin, 1992). Contrary to the universalist approach, in fact it does not depend directly on management tools to reach its objectives for the improvement of the organisation. While it reserves a more limited place for them, the contingent approach has worked a great deal – and evolved – on a set of problems particularly relevant to the discussion here on the management tools: the relationships existing between technologies and organisations. Indeed, as management tools may be considered as a special type of technology (Girin, 1981; Berry,



1983 ; Hatchuel & Weil, 1992), it is interesting to nourish the reflection here by analysing, in detail, how the contingent approach has managed to treat this question of relationships between technologies and organisations.

The first work of the contingent approach may be considered as being part of a logic of «strict technological determinism» (Strohmeier, 2006). Thus, for example, the work of Whisler (1970) seeks to identify the impacts of a technology – here computing – on organisations. The logic is strictly that of a one-way and imperative cause and effect link. Current knowledge of the diversity of the tools which may mobilise a computing support (Eason, 1997; Kaplan-Leiserson, 2002) and also the experience of the diversity of the firm's practices show how poorly explanatory this strict determinism is: all firms are far from experiencing the same transformations when they develop computing in their organisation. This strict technological determinism has therefore left the place to «moderate technological determinism» (Strohmeier, 2006). For example, the works of Attewell & Rule (1984) no longer postulate a single effect of a technology on all organisations. The cause and effect chain is considered as persistently affected by different moderating variables – which are not always possible to anticipate – and which explain the variety of outcomes produced by the technologies in one organisation or another.

This moderate technological determinism would seem to correspond relatively well to the logic of the contingent approach developed above, since the latter considers that organisations develop in permanent, relatively unpredictable interaction between the different elements that compose them. However there is a crucial aspect missing which had not yet been raised in these reflections on technology: the effect of the will of the managers, the margins for manoeuvre and the space for choice which they have in the selection of the technologies which they introduce into an organisation and in the selection of the functionalities which they choose to develop for a given technology. Certain works such as those of Markus & Robey

(1988), for example, have particularly insisted on the place of the managers' wishes to explain the effects of a technology in an organisation since they consider that the managers have an almost unlimited possibility of choice over the types of technology which they introduce and almost perfect control over the consequences of them.

Most of the work is to be found in a median position, that of «moderate voluntarism» (Strohmeier, 2006), which considers that technologies have a certain number of functionalities, that they enable certain outcomes to be obtained but that the effects that they produce are both linked to an interaction between them and the other characteristics of the organisation and, above all, to an interaction between them and overall human willingness, conflicts of interest, battles of wills between the members of the organisation (Orlikowski, 1992; Eason, 2001; Robey & Boudreau, 1999). While not initially covering management tools, these works would seem to provide some particularly interesting elements for an analysis of the place of management tools in organisations: the latter should be analysed both in the interactions that they entertain with other elements which compose organisations (structure, size, sector, etc.) as well as the wills, the games and the relationships between the players who live and work in these organisations.

At the end of this literature review of the two main approaches which enable an analysis to be made of the HR practices of organisations, their development and their dynamics, it would appear that the managers have a systematic interest in checking that the principles of the «best practices» observed elsewhere are valid within the enterprise where they would like to implement them (in the context of a universalist approach which could be qualified as a «reasoned universalist approach»). As, in most cases, these tools are not applicable as such, these managers have probably also interest in adapting and transforming them, not so as to correspond to a new ideal model, but so as to try to maximise the coherence between the different characteristics of the organisation as is proposed by the contingent approach.

But, beyond this general principle of the search for coherence, the contingent approach does not provide a large number of concrete elements about the way in which it may be achieved. As was the case in this literature review, it would seem that by approaching an organisation by the way in which the players construct and run the management tools in it, could provide certain elements which enable a better analysis of how this coherence and these dynamics may be built.

## **2. DESIGN OF THE RESEARCH AND METHODOLOGY**

In all organisations, management tools suffer from a contradictory twin reputation. On the one hand, in the image of what has been observed in the universalist approach, managers would seem to expect a good deal from them. For example, the systems for managing skills are supposed to enable the management of all the HR policies in the enterprise (Boyatzis, 1982 ; Spencer & Spencer, 1993 ; Lawler, 1994 ; Ulrich, 1997) as well as managing the talents, the remuneration and performances, coordinate change management and even influence strategy (Lawler, 2005). There are expected impacts at the individual as well as the collective and organisational level (Stajkovic & Luthans, 2001) By enabling the Humain Resources Department to develop more high added value activities, they are even presented as having to enable it to become a real business partner and make a great contribution to the performance of the organisation (Lawler, 2005). The tools for the management of skills would therefore appear, for example, as one of the levers by which the human resources professionals may contribute to the success of the organisation by maximising its human capital (Rodriguez *et al.*, 2002).

On the other hand, the practitioners and the few works which are attached to the analysis of the concrete implementation and the effects of management tools describe these tools as difficult to design and implement (Pfeffer, 1998), whose effects are limited and which are threatened to rapidly run out of steam (Beer, Cannon, 2004). At times, they are even

considered as having potentially destructive consequences on the intrinsic motivation, self-esteem, teamwork, etc. (Deci & Ryan, 1985 ; Kohn, 1993 ; Shaw *et al.*, 2002). The majority of the authors would therefore seem to agree on the idea that management tools very often lose their effectiveness. Kochan (2004) thus recalls that for a long time McKersie et Hunter (1973) have been demonstrating that a trend exists for all the incentive tools to degrade with time and any revision is tricky since it is observed by employees with more attention than their initial design.

This rapid degradation may be explained by a phenomenon of «managerial fashion» (Beer, Eisenstat & Spector, 1990 ; Midler, 1986). The tools would then be abandoned because their designers allow themselves to be caught up in an effect of imitation (Di Maggio, Powell, 1986) or a belief, which is not supported in the effectiveness of such or such a tool (Rigby, 2001; Taylor & Brown, 1988). They would therefore not have built them from an objective analysis of the context of the specificities and real needs of their firm. There can be no doubt that this situation exists. A good number of failures in the introduction of management tools derives from the fact that they have been carried along by the effect of a fashion rather than a real concrete need of a firm. In accordance with what the classic universalist approach proposes, they are «imported» from other organisations and contrary to what the contingent approach proposes, they are therefore not adapted to the specificities of such or such an organisation (Gerhart & Rynes, 2003).

This degradation may also be linked to the obvious errors of the tool designers in the *change management* which must necessarily accompany it. In fact a tool does not introduce itself alone in an organisation. It should be presented, explained, «sold», firmly backed by the highest levels in the hierarchy of the enterprise, linked to the values of the firm, etc. (Dailey, 2004). Certain failures may therefore be explained by the fact that these tools have not been included in a real process of *change management*.

As a complement to these explanations, an attempt will be made in this article to show that elements, which enable a better comprehension of – and therefore limit – this phenomenon of degradation may be highlighted by a precise and concrete analysis of what management tools are, the resilience of their dynamics and their eventual loss of steam. Very few academic works have investigated in detail how the design of a management tool is decided, how it is made, what the phenomena are which are produced when the tool is implemented, how the designers of the tool react to these phenomena, etc. This work will be initiated here.

Given the complexity of the phenomenon studied, and the low level of knowledge there is on it, the single case study would seem to be an indispensable stage (Yin, 1994). Comparative case studies or even quantitative studies could then be envisaged but, initially, the single and in-depth case study would appear to be the most effective methodology for getting to grips with this process with its little known borders and mechanisms (Hartley, 1994).

The case study was carried out in a firm in the chemical industry, with a payroll of 200 employees, which produces plastic granules from polyethylene<sup>1</sup>. The capital intensity<sup>2</sup> and the degree of automation of the production process are particularly high here. In 1993, when the plant was created, the Plant Manager chose to implement a *pay-for-skill* system for its maintenance technicians. By means of this case, this article does not pretend to propose general lessons on the effects of *pay-for-skill* tools. It would even be possible to consider that this tool – while using the term skill – in fact very close to classic job descriptions<sup>3</sup>. It is therefore not the *content* itself of the tool, which will retain attention here.

This case study would seem interesting because it provides an account of the *process* of design, implementation and medium term effects (10 years) of this tool. This long implementation period enables the concrete effects of this tool to be seen, an analysis of its

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<sup>1</sup> Cf. synoptic information on the enterprise in Appendix B.

<sup>2</sup> According to the management of the firm, the cost of labour currently represents less than 10 % of the cost price of a tonne of plastic manufactured, that is to say, for example, half as much as the cost of transport.

<sup>3</sup> For a synoptic presentation of the pay for skills tool, cf. Box 1.

successes to be made as well as to an understanding of why it functions less well at certain times and therefore a proposal of the elements necessary to remedy these difficulties to be put forward. This plant further presents the additional interest of being a *grass root installation*, that is to say completely new. It is therefore able to be thought out and built from the very start with the idea that management – and remuneration – of skills should be the human resources management mode given favour. Contrary to other cases, it is impossible to attribute any eventual difficulties encountered in the management to a phenomenon of the type «it was better before». In this case, there exists no «before» (at least in this firm) and the staff knew when recruited that this management tool was to be implemented.

As is customary for case studies, a highly in-depth documentary research is carried out on the firm and its history (Guba & Lincoln, 1985). Then formal interviews are carried out with all the types of people who played a role in the design and the implementation of this tool<sup>4</sup> (25 interviews in all). As far as the concept is concerned, the *change manager* who was responsible for the initial project was interviewed as was the Plant Manager, the HRM at the time as well as the different First Line Supervisors (FLSs) and Second Line Supervisors (SLSs) involved in the design of the tool. As regards the implementation, the main supposed users were questioned (the FLSs, the staff, the current HRD, the trades union delegates). A part of them – in particular the operators and the FLSs – were present in the firm during the design of this tool. Even if informations put together *a posteriori* should always be handled with care (Miller, Cardinal, Glick, 1997), the work of triangulation and data saturation enables the formulation of a proposal of an analysis backed by the history of this *pay-for-skill* tool to be made<sup>5</sup>. By questioning people occupying the most varied positions in relation to this tool, the objective was to cross-refer the information so as to retain that which appeared to be

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<sup>4</sup> These interviews were partly carried out by D. Brochier (Céreq).

<sup>5</sup> This work was also based upon a very large amount of information which had been collected in another firm in the same group situated geographically beside the enterprise presented. This enterprise has itself been the subject of a very in-depth investigation (interviews, participative observation, etc.) which was reported in a thesis published in the author's book, 2004.

accepted by all and which therefore represented a strong element in the history of this tool (Webb *et al.*, 1965).

Semi-directive interviews were used in this study for they enable the context and the logic of argumentation of the players to be better analysed (Merton, Fiske, Kendall, 1990; Ragin, Becker, 1992; Stake, 1994; King, 1994). To process these interviews, classic coding methods were used. Nine themes were identified and the data was split between these different themes (see Appendix A). During coding, a certain number of changes in the list of themes were made. This stage is, in fact, an interactive process where themes may emerge from the interviews themselves (Miles et Huberman, 1994). A first level of coding was used to reduce the diversity of the data and sum up the important parts of the interviews. Then, this coding enabled the main themes covered in the interviews to be identified (Burgess, 1982).

These data were processed using an analysis grid which needs to be presented for it explains a non-negligible part of the analysis and recommendations which will be developed below. This management tool analysis grid was proposed in 1992 by Hatchuel & Weil. Since then it has been tested on several occasions (Gilbert, 1997; David, 1998; Oiry, 2004). For this reason, it appears extremely solid. This grid orients the analysis for it demonstrates that the management tools are not homogeneous objects but the articulation of three very heterogeneous elements: a formal substrate, a managing philosophy and a simplified representation of the role of the players (Hatchuel & Weil, 1992):

1/The formal substrate of a tool designates the set of concrete supports in which the tool is embodied. For the tool studied, it corresponds essentially with the skill reference systems and the formalisations which enable a skill score to be linked to remuneration.

2/The managing philosophy of this tool corresponds to the set of arguments which, in describing its expected effects, attempts to convince the various players in the organisation that it is in their interest to use it. In the tool studied, it will be observed that this philosophy is

centred on the "plant of the future" notion. In this discourse, this plant is characterised by a strong conceptual and instrumental coherence, a condition for the creation of a virtuous circle between the development of individual skills of the employees and the overall performance of the organisation.

3/ The simplified representation of the role of the players corresponds to the fact that during the design of a tool, the designers are necessarily led to make hypotheses (at times implicit) on how the users (maintenance technicians, *team leaders*, HRM, Plant Manager, labour organisations, etc.) should behave in order that the tool functions well. In the case studied, it will be observed that these hypotheses correspond, for example, with the idea that the employees will prefer reduced polyvalency to extended polyvalency, that the young and older members of staff will use this tool in the same way, etc.

The parts below describe how this tool was designed, what effects it has produced, how the tool designers attempted to respond to the at times unpredicted effects of this tool.

### **3. EMPIRICAL RESULTS: TEN YEARS USE OF A SKILL MANAGEMENT TOOL IN A PETROCHEMICAL FIRM**

By definition, the history of this tool is nevertheless a dynamic process, so as to come to terms with this, it is necessary to specify the sequences. Thus, firstly the way in which the tool was built will be examined (phase 1), then the fact that its operation was initially satisfactory (phase 2) but that it produced some unexpected side effects (phase 3) which required from the tool's designers a reaction which was relatively effective but which could have been even more so (phase 4).



**Phase 1 – Design a management tool: articulate a managing philosophy, the simplified roles of the players and a formal substrate (1987 – 1993)**

*- A managing philosophy*

The firm studied produced its first tonne of plastic on 1 November 1993. It was at the time entirely new and is thus good ground to embody the former reflection in this oil group on the concept of «plant of the future». Equipped with a department specialising in "organisational development" (OD), in 1987, this group had built an international working team<sup>6</sup> charged with harmonising the features of a "*Plant of the future*". The notions of *empowerment*, of *pay-for-skill* or *flat organization* were thus identified as factors of global performance for the plants. This managing philosophy had been synthetised in the slogan « let's succeed together "*the plant of the future*" » and may be represented by means of the diagram below:

**Insert Figure No.1: Conceptual presentation of the "Plastics factory" about here**

This diagram is both classic since there are concepts which give the traditional definition of the qualifying organisation (Rodriguez *et al.*, 2002; Zarifian, 1994; Thierry & Sauret, 1993) and relatively innovatory since it proposes a practical implementation of the the latter

*A simplified representation of the role of the players*

Even if it is not necessarily immediately perceptible, this diagram itself incorporates a simplified representation of the role of the players. In fact, it is not just any type of player which is in a position to succeed this «plant of the future». Special behaviour is necessary for that. In particular, this type of organisation is only possible if the whole organisation functions around a collective debate about the objectives to be achieved, the tools to be mobilised for that, etc. The *empowerment*, the *multiskill* and the semi-autonomous teams, in fact, require an

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<sup>6</sup> The participants were Texans, Australians, French, etc.

effective system of communication in order that the interactions are produced in the most fluid and the most effective way possible.

This bias in favour of the involvement of everyone for the success of the organisation is to be found very concretely in the launch mode of this organisation. Thus, the *team leaders* (First-Line Supervisors – FLS –) were recruited two years prior to the effective start-up of the plant. They were able to participate in the design of the recruitment tools for the future members of their team. They also animated and/or took part in the long period of training (6 months) which was planned prior to the start-up to bring all the newly-recruited members of staff up to the same level and which enabled them to build a vision, shared by everyone, of the work to be undertaken and the company strategy.

This strategic shared vision is based very heavily on the «multiskill» concept. Beyond the notions of empowerment or complete tasks, it is this notion which would today seem to have symbolised for the staff the key factor of the success of the organisation.

*“I would say that what has motivated the people to come and work here, typically was the multiskill concept and the autonomy. I believe that clearly at the outset the message was that of a pluridisciplinary and autonomous team, with very few hierarchical levels and a great deal of autonomy at each level. It is therefore true that that was of interest to everybody, the multiskill and the autonomy, it is certainly what makes 90 % of the people move. There are perhaps some who came for the salary, but there are a good many who came here above all for the organisation”* (CL, maintenance technician).

By oversimplifying a little, it may be said that in this organisation the idea that success would come from the capacity of the staff to master several skills («multiskill») gradually imposed itself.

- *A formal substrate*

To succeed this «plant of the future», the change manager, the HRM and the Plant Manager accompanied by the *team leaders* from the Maintenance Department<sup>7</sup> designed a skill based pay system. The functioning of this system may be resumed as follows:

**Box 1: Description of the skill-based pay system**

**COMPONENTS**

**Two types of approach to organise skills**

- "Technical" specialisation approach: a specific orientation is established for each profession (instrumentation, electricity, mechanics, etc.). However, each maintenance technician can accumulate several professions: this is the "*multiskill*" notion (instrumentation and electricity and mechanics).

- A "job mastery" approach common to all the professions of the firm. They index the transversal skills attached to the mastery of computing tools, the safety and quality rules, etc.

**Reference systems to identify skills**

Each of these approaches includes two levels of complexity. Reference systems built from skills exercised enable these levels to be defined.

The skills are formulated in the form of items.

Example: "carries out all types of adjustment in his area".

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<sup>7</sup> Initially, pay for skill tools for the manufacturing operatives and *team leaders* were planned. Finally, they were not designed nor implemented.

### **Coefficient grids to pay skills**

Each level acquired in an approach (technique(s) or job mastery) attributes to the staff member the "*salary group*" immediately superior (coefficient internal to the enterprise) and therefore the coefficient of the collective bargaining agreement immediately superior. Recognition of the skills exercised is immediate.

#### FUNCTIONING

- Before the assessment campaign, the *team leaders* meet to distribute between them the budget envelope that the HRM has allocated for the coming year. .
- Then, each direct supervisor validates, during an interview, the skills exercised by each of his subordinates; it is referred to as "*putting crosses*". The system is binary: the skill is either possessed or not.
- He then works out this staff member's coefficient.
- Depending on the needs of the enterprise and the expectations of each staff member, the supervisor proposes a career progression to this staff member and defines the training needs that are associated with it.
- Once this assessment has been carried out, the *team leader* and the technician proceed with an assessment of performance. This enables the increase in salary of each individual to be determined.
- Before sending the results of the assessment to the HRM, the team leaders hold a meeting for the results of the individual assessments of skills to be consolidated. These results may be modified in the margin and are validated by the Second Line Supervisors (first executive level).

The presentation of this tool shows that it attempts to concretely incarnate the philosophy of the «plant of the future» described above. It may also be noticed that, so as to function well, it assumes special roles of the players of the organisation. Indeed, when the functioning of the

tool provides « before the appreciation campaign, the *team leaders* meet to split between them the budget envelope...» and they then meet to have a consolidation meeting, etc. that means that the HRM and Senior Management really leave them free to manage as they wish the budget envelope which has been defined for them. Here then, there really is a participation/negotiation of this hierarchical level in the HR management of this firm.

In the same way, the good operation of this tool assumes the success of the *multiskill* concept. The majority of levels are to be found in the technical approaches (there is only one «job mastery» approach which is not technical while there is an approach for each of the possible technical specialities). The supplementary remuneration of the staff being linked to the acquisition of a supplementary level, it is certain that the tool will be interesting financially for the employees if they manage to acquire levels in the different technical approaches. It can be seen here how a managing philosophy is concretely rooted in the formal substrate of the tool: convinced in the idea that the multiskill will make the overall performance of the organisation, the designers of the tool have logically chosen to put higher remuneration on this feature.

## **Phase 2 - the satisfactory functioning of the tool (1994-1995)**

The initial years of use of the pay-for-skill management tool were satisfactory. The employees and the *team leaders* today say that they find this tool both relevant and effective.

*“The recruitment message were precisely that they were taking into account the multiskill approach (...). I am one of those who profited from it because I had quite a lot of coefficients, it was an ever upward slope.(...) The multiskill, means doing your basic profession and acquiring the skills in other directions which obviously enables you to have coefficients and remuneration which increase ... and for them (plant managers team, Author’s note) it’s also interesting. They did not do it for nothing, it enabled them to have people available for interventions. When I am on duty, they can call upon me just as much for the instrumentation*

*as for the analysers. In any event, there is a gain for them so there had to be a gain for me as well. That is what I had.* ” (YL, maintenance technician).

Whatever their position in the organisation, all the users remember a dynamic use of the tool during the initial years of operation of the plant. On the one hand, the Maintenance Technicians quickly understood the interest that they had in “*playing the game*” (HB, maintenance technician). The commitment to the new activities and the mastery of new specialities, once they were validated by the hierarchy, enabled them to obtain a positive evolution of their salary and/or their coefficient. On the other hand, the *team leaders* quickly had skilled teams which enabled them manage the changing circumstances in business flexibility.

In this phase, the *multiskill* process constitutes very much the driving force of the overall performance of this firm. Through the *pay-for-skill* tool, this concept manages to combine the expectations of the employees (pay for skills acquired) and those of Plant Manager (increase in the polyvalency of the staff). A detailed analysis of the speech of the players on this period shows that this effective operationalisation of the *multiskill* concept has nevertheless been facilitated by the fact that the HRM was very largely overdetermined by the overtime distributed to ensure the start-up of the plant.

### **Phase 3 – Unpredicted effects (1995)**

At the same time as these satisfactory uses were being produced, some unpredicted effects appeared. It was observed, for example, that there was a trend towards an inflation of the payroll (linked to the success of the tool) and an unpredicted interpretation of the concept of *multiskill*. *A posteriori*, the mechanics which produced these effects are relatively easy to describe and analyse, but at the time they were produced, they were sufficiently surprising as to de-stabilise the designers of the tool and produce outcomes that the latter considered as under-effective compared with what they expected.

*An inflationist trend which had not been predicted*

It was seen above that the tool being analysed is based among other things on the assumption of the existence of a virtuous circle between the remuneration of skills and the performance of the organisation. This supposed virtuous circle was quickly transformed into a vicious “inflationist” circle which had made the payroll grow more than had been forecast. By analysing the manner in which this tool was used by the *team leaders* and the employees, it is possible to understand where this inflationist trend came from. It may be observed, for example, that the Maintenance Technicians quickly fell into a logic which led them, once they had acquired a coefficient, to go in search of a new level so as to obtain the increase in salary which was linked to it. *“Like any system, when it is introduced, the people will immediately see how they are going to be able best to exploit it. The job mastery approach where there few skills per level was relatively simple therefore the guys started quickly to climb up in this direction. The same for the first levels of the different professions. As they are often rather simple, the guys started to string them together like pearls and we were supposed to give them the coefficients which went with them.”* (AV, team leader maintenance).

Parallel to this phenomenon, the *team leaders* found themselves "sucked in" by the logic of the message on the *multiskill* concept which they had contributed massively to distribute. More than that had been envisaged, the *team leaders* integrated the assumption of the existence of a virtuous circle between the development of employee skills and the performance of the organisation. For this reason, they could not but approve the liking for the development of new skills which the technicians showed (even if at times they had a tendency to doubt the more "financial" than "professional" finality that these latter give to this process...).

*“We realised that we had made a system, which at its very inception was inflationist, ...which was unmanageable for a company. We had taken a system where we accumulated a large*

*number of professions and later we said, the problem is accumulating, accumulating, accumulating, it's clear that we wouldn't be able to manage the progression of the people (...) Take ten coefficients in ten years, that would appear completely utopic and it's true that in industry that doesn't exist. Therefore, we absolutely had to remedy that and come back to something more realistic, a more standard progression » (LB, maintenance technician).*

This unpredicted inflationist effect because of its amplitude is particularly interesting for the analyse of unpredicted effects of a management tool because they are most of the times explained by the poor use of a tool. Here, it is, on the contrary, the success of the tool, the strong commitment of the staff to its philosophy which poses a problem for the designers. The success itself may therefore become a difficulty for those who have to manage HR policies.

#### *An unpredicted interpretation of the multiskill concept*

More fundamentally, one of the major unpredicted effects, which appeared during the use of this tool stems from an interpretation of the *multiskill* concept that the designers of the tool had not predicted. Without seemingly having been aware of it, they had built it on the implicit hypothesis of a *multiskill* process that could be qualified as «reduced». *A posteriori*, it would appear that in fact they considered that so as to have effective teams, the firm needed to have employees with a strong expertise in a given profession and relatively strong skills in one or two other professions as a minimum. Implicitly, this «reduced» *multiskill* could be represented by a «cone» shaped model, where among the six existing professions initially in maintenance, each member of staff develops skills in two or three of them only. This «cone» model may be represented in the following way:

#### **Insert Figure 2: Graphic representation of the «reduced» *multiskill* about here**

However, as has just been pointed out above, as each level, whatever the profession to which it belongs, translates into a salary increase, the maintenance technicians do not finally subscribe to this implicit model of the «reduced» *multiskill* and interpret the term *multiskill* in



a sense which is most favourable to them and which may be characterised as that of a «broadened» *multiskill*. The first levels of each profession being systematically the easiest to obtain, they develop skills in all the professions (including those which do not have a great deal to do with the profession in which they have the strongest skill) so as to benefit from the highest possible remuneration. This «broadened» *multiskill* corresponds to a «rake» model which does not enable the «reduced» *multiskill* easily as to set a virtuous circle in motion between the development of skills and the performance of the organisation for it makes skills coexist in the professions which only have very few interactions between them. This «broadened» *multiskill* may be represented in the following way:

**Insert Figure 3: Graphic representation of the «broadened» *multiskill* about here**

Implicitly, the designers had therefore based the good operation of their tool on a «reduced» *multiskill* model which was abandoned by the users for a «broadened» *multiskill* which presents as an inconvenience the fact that it is more difficult to implement a virtuous circle between development of the skills of the staff and the performance of the organisation. As a result of this difference, this management tool does not fully produce the effects expected by the designers.

**Insert Figure 4: Graphic representation of the gap between « *multiskill* implicit expected » and « *multiskill* achieved » about here**

Other unpredicted effects could be detailed (as for example the fact that this tool would seem to function better for young recruits than for more experienced staff who have reached the ceiling of their profession and career) but those that have just been presented would seem characteristic of the unpredicted effects which appear generally during the use of a management tool. Firstly, these unpredicted uses are not necessarily very difficult to predict (the cases of the inflation of the payroll costs during the use of *pay-for-skill* tools are relatively common) but they are destabilising for they highlight the implicit hypotheses that

the designers had made as to the functioning of this tool. So as to limit this destabilisation, it would seem interesting that the designers of management tools (including the authors) become aware that the use of tools by the employees in fact corresponds to a test of their design work (Hatchuel, 1996). By using a tool, the employees are in a position to analyse the domains where it functions well as well as those where it works badly and may eventually identify the means available to improve it. Depending on their personal expectations, and these diagnoses, the employees therefore develop almost systematically unpredicted uses for the management tools. Even if, in certain cases, it would seem possible to better anticipate the nature of these unpredicted uses so as to limit their destabilising power, it would seem difficult to envisage a perfect and total anticipation of them. The literature on management tools rather confirms this hypothesis since these unpredicted effects would appear to be so systematic (cf. the commentary of Kochan (2004), for example). In the analysis of this process, it would therefore appear more effective to start from the idea that these unpredicted effects exist and will exist and rather advance in the identification of the range of types of behaviour that these tool designers may develop in relation to these unpredicted effects. The case study which has been carried out provides some elements of a response to this question and makes some complementary proposals.

#### **Phase 4 – How to respond to these unpredicted effects (4 possibilities)? (1996-2001)**

The firm studied proposed three successive types of answers in an attempt to counter to these unpredicted effects in the use of the tool. Firstly, it ignored them (*Possibility 1*), it then took account of them so as to modify the formal substrate of the tool (*Possibility 2*) and finally, it designed a second *pay-for-skill* management tool in an attempt to limit the effects considered as negative in the first (*Possibility 3*). Since this «in parallel design» itself produced effects that the staff consider as ineffective, it is envisaged that a fourth type of response would

appear as effective faced with the irruption of these unpredicted effects in the use of the initial tool (*Possibility 4*).

*Possibility 1: Refuse to take into account the unpredicted effects*

Initially, the designers of this tool would seem to have refused to take account of the unpredicted effects that they had built. Here may be seen behaviour which is current in a good number of organisations. At times, the designers were not aware of these unpredicted effects (because they are hidden, silent, etc.) but even when they were aware of them, it happened that they catalogued them as illegitimate. Considering that they are linked to the fact that the staff do not respect the rules provided for the use of the tools, they refuse to transform the tools so as to attempt to take account of these real but unpredicted uses. The most usual effect of this type of response is the disconnection between the tool and the real activity. The literature on *pay-for-skill* management reveals a good number of examples of this situation. It may be regularly observed that the annual appraisal interviews have become «ritualised» (Estellat, Oiry, Trépo, 2005). Since the HRM imposes an annual interview, the employee and the n+1 meet but this interview is purely for the form, no important element is discussed there and the tool does not play a real role in management. In the more or less long term, this logic leads to this tool being abandoned (Beer, Cannon, 2004).

*Possibility 2: Take account of the unpredicted effects to modify the formal substrate of the tool*

In this firm, the refusal phase was relatively short. While the tool had only been in operation since 1993, at the beginning of 1996 few people were charged with reviewing the tool architecture. This reactivity means that there was no real disconnection between the tool and the real activity. It can no doubt be attributed to the fact that the firm has always made its employees really participate in the design of management tools. Both users and designers,

*team leaders* would have had difficulty in ignoring the unpredicted effects of the *pay-for-skill* tool. They very quickly thought of proceeding with a transformation of the formal substrate of the tool. Adopting the logic which had been that of the organisation until this time, they involved everybody – including the technicians – in this transformation. This led to two major evolutions.

Henceforth, it was no longer each level acquired in an approach which increased remuneration. This was established in relation to the *highest level* obtained in technical fields. This showed a concrete implementation of the diagnosis established above. The firm needed a «reduced» *multiskill* that is to say employees mastering a profession very well and acquiring some basic skills in a few complementary professions not “*handymen*” who had a level in each existing profession (AV, *team leader* maintenance). Then, they revised the skill reference system so as to make progress a little more difficult within these. In accordance with the work of Kochan (2004), it was observed that the employees did not take advantage of their participation in the revision of the reference system to attempt to make progress easier. Showing that they were conserving a relatively clear vision of the strategy of the organisation and its overall operation, they affirmed as follows: “*In any event, our mission in the revision of the grids, was to slow down progress. We knew it and accepted it ... Furthermore, everybody knew that that it couldn't continue at this pace. At one moment or another, there would have been no follow-on* ” (LB, maintenance technician).

This transformation was both rapid (the negation of the unpredicted effects did not last long enough to to completely disconnect the tool from the real activity) and far-reaching (it was not a simple «revision» of the reference system) but it did not really produce the expected effects. The dynamics of this tool were once again to be found very quickly seized up. It has been seen above that the management tools are composed of a formal substrate as well as a managing philosophy and a simplified representation of the role of the players. This analysis

grid provides an understanding and enables the proposal of an explanation for the fact that the revision of this tool did not have the hoped-for effects.

While attempting to take account of the unpredicted effects of the first version of the tool, the *team leaders* and the employees who accompanied them proceeded with a transformation of the formal substrate of the tool but left the other two elements unchanged. There was therefore a very good chance that they were no longer really consistent with a formal substrate which had itself been deeply modified. The relative failure of this transformation – an effect particularly expected – can then be explained. Salary inflation was limited, the *multiskill* was reduced further than previously but it was henceforth the employees who had doubts about the very logic of the tool and for this reason were less committed to it.

*“When we revised the grids, it was a little as though the « spirit » of the start-up of the plant had been lost. We did not feel the same sense of belonging from the teams... Then, the notion of potential arrived very quickly ... these new grids were perhaps not really given their chance... ”* (LB, maintenance technician).

*Possibility 3: Design a second tool in an attempt to limit the unpredicted effects of the first*

In an attempt to respond to these successive unpredicted effects, from 1999 onwards, a new HR Manager introduced a new career management (and pay) tool which was no longer supposed to manage skills but the «potential» of the employees. During the annual interview, each *team leader* established the «ultimate potential» of each of the members of his team. This ultimate potential could be revised slightly but it was to be relatively stable so as to enable a relatively regular sharing of the salary increases and promotions throughout the career of the employees. It was therefore a completely different tool since it no longer made any call upon the skills to manage the employees. It was based upon a formal substrate, a

managing philosophy and a simplified representation of completely different players – even if the latter were not clearly spelled out<sup>8</sup>.

Nevertheless, it is not this radical change in managing philosophy which upset the staff the most. They were finally ready to consider that the «plant of the future» and the *pay-for-skill* concept were perhaps no longer the performance tools of tomorrow. This is what may be interpreted when they say in a rather abrupt way: “*today, skills are no longer paid for!*” (AL, maintenance technician). But what upset them most, was the cohabitation between the two management systems of potential and *pay-for-skill*. It was obvious that the former, which was designed without them, as a break with the participatory logic of the organisation, would appear to them more more distant from their preoccupations but their main worry was rather knowing by what criterion they really were to be judged. “*Well, with the potential, it’s that we don’t know where we are going. We still use the grids to make the appreciations. Does it still have some use or is it just collective hypocrisy? If everything is decided in advance with the potential, what is the point of seeming to discuss the skills that we may have acquired this year or not? Couldn’t we just decide once and for all ?*” (AL, maintenance technician).

It is only the designer of the potential management tool (the HRM) who was trying to affirm that the two tools were coherent. “*The persons that we will choose are those who have the greatest capacity to learn. Therefore, indirectly they are the people who have the greatest potential. Hence, it is not antinomic, it is linked (...)* It is not solely the management by potential rule. ***Even when you are in a skill system, you manage potential.*** Since you identify the people you are going to train in relation to their potential. Well, that’s the word. People always say to me: « *what is this magic word, potential?* ». I say: « *wait, it is what you*

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<sup>8</sup> As far as the managing philosophy was concerned, the HRM who designed the tool could, for example, have clearly said: « we no longer wish to remunerate the *multiskill* and the current skills of the employees, as does the pay for skills tool, but prefer to reserve salary increases and promotions to people we identify as having «potential», that is to say, people who today work well and who we think will work even better tomorrow.»

*do every day. Here, I will give it to this one to do because he's good"* (SP, HRM, authors' emphasis)

Because it produced unpredicted effects, the HRM wanted to abandon the *pay-for-skill* tool but she did not dare condemn it officially (perhaps because it represented the founding and mobilising managing philosophy of the origins of the organisation) and replace it by a management by potential tool based upon a formal substrate, a managing philosophy and a completely different simplified representation of the players. In compliance with what had been established above by means of the contingent approach, this lack of coherence between two *pay-for-skill* management tools would seem to destabilise the firm's employees more than probably the abandoning of the first tool.

It is for that reason that a 4<sup>th</sup> type of response to the emergence of the unpredicted effects of the *pay-for-skill* tool would appear envisageable.

*Possibility 4: Take account of the unpredicted effects so as to re-design the tool (formal substrate, managing philosophy and simplified representation of the players)*

Even if that had not been done in the firm that was analysed, it could be thought that if the designers of the *pay-for-skill* management tool had managed to consider these unpredicted as a source of information about the expectations and the needs of the employees in the domain covered by the tool, they might have/would have been able to respond to these unpredicted effects by designing a new tool based on the formal substrate, the managing philosophy and the simplified representation of the players who were mobilised in the initial version of the tool and not in opposition to them (as will be observed above).

The re-designing of the tool falls within a certain coherence compared with the previous tools (it is less a question of making an objective assessment of their functioning) may perhaps have enabled the destabilisation of the employees to be limited by proposing to them a tool which may have rediscovered a strong coherence between its managing philosophy, the

simplified representation of the players and the formal substrate. The question of whether this redesigning may have finally resulted in a new version of the tool (in this case of *pay-for-skills*) or a completely new tool (for example, a potential management tool) would appear *in fine* a relatively incidental. It is not its closeness to the previous tool but the coherence between the three elements of the new tool proposed and the eventual suppression of the tools which are no longer used which would seem the most crucial for the employees to be able to accept the tools of their firm's HR policy.

The diagram below summarises the set of dynamic elements presented above.

**Insert Figure 5: Modelisation of an analytical framework of the dynamics of a management tool about here**

## CONCLUSION

At the end of this work, it would seem then that the analysis of the dynamics of management tools would appear as an interesting key for the analysis of the dynamics of the HR policies of an organisation.

The literature review showed that an analysis of the dynamics of management tools is relatively rarely present in the analysis of the dynamics of HR policies of firms. By taking up the two main approaches which exist in this domain, it has been shown that the latter do, however, play an important role. Thus, it has been observed that the universalist approach which has as its objective the identification of «best practices» so as to later diffuse them in all organisations would seem above all to depend upon management tools to formalise, homogenise and diffuse these «best practices». Certain authors even define this approach as an «instrumental» approach (Brabet, 1993). In appearance, the contingent approach would seem to reserve a more limited place to management tools but it has nevertheless been observed that, as the management tools may be considered as technologies, the latter shows clearly that the effective organisations are those which manage to initiate an approach to



improve the existing coherence between their different characteristics (strategies, technologies, HR policies, etc.)

So as to better understand how this approach is concretely implemented in an organisation, it has been shown in this article that an analysis of the phases of the design and use of management tools was a rarely used but nevertheless particularly fruitful entry point. By using a case study, an effort has in fact been made to report on the dynamics at work both in this tool and in the organisation where it is being developed. Starting from the idea that management tools are heterogeneous for they articulate a managing philosophy, a simplified representation of the players and a formal substrate, it has been observed that the initial design phase may be analysed as a collective attempt of the designers to build a solid coherence between these three elements (Phase 1). The analysis of this phase should not be neglected for it would seem in a position to provide information on the dynamics of the phases to come. Indeed, during the design, the phenomena at work are more visible, for the principles of functioning, the roles, the contents, etc. are less rigid than in the previous phases. Moreover, it frames to an extent the uses to come from the instrumentation. Indeed, the latter are made possible or, on the contrary, made difficult depending on the balance and compromises established in this phase.

The second phase of this dynamic process corresponds to the functioning of the tool that has been qualified as «satisfactory». It is not absolutely sure that this phase is to be found in all organisations. It is quite possible that in certain of them, the management tools never know this sort of «state of grace» that has been described. In this phase, the users have given credit to the instrumentation. They have not judged it in an *a priori* negative manner. However it should be underlined that care has been taken in evoking a «satisficing» phase of functioning (as is defined by Simon (1956)). This term indeed enables all analysis of individual and collective effectiveness to be left aside, both at the level of individuals or the organisation, of

what is nevertheless functioning satisfactorily. It may in fact be perfectly well envisaged that this functioning, while satisfactory, may in certain cases be neither effective nor efficient ... It is important to be all the more careful on the «satisfactory» nature of this functioning since it has also been observed that a good number of unpredicted effects appeared very quickly (Phase 3).

The essential of the dynamics proper to the tool as well as to the HR policies which the firm is developing would then seem to depend on the manner in which the designers position themselves in relation to the emergence of these unpredicted effects. In the case studied, it has been observed that they firstly considered these emerging uses as a misappropriation of the tool, which practice should ideally be sanctioned and which they consequently refused to modify. This almost led to the ritualisation or the disappearance of the tool. They then considered these emerging uses as an inconvenience (it would have been more effective to anticipate them from the tool design stage) but nevertheless as requiring a response. They then proceeded to a transformation of the formal substrate of the tool so as to attempt to limit them. Faced with the failure of this response, the HRM then judged it necessary to design a new pay and career management tool which was completely different to the first but did not go as far as abandoning the *pay-for-skill* tool. It was observed that this forced cohabitation of the two tools destabilised the employees who wondered indeed which tool really was being used to manage them. It is for this reason that the hypothesis was only made when faced with these unpredicted effects, but it would without doubt been more effective to consider them as a source of information on the expectations and the needs of the employees and to use them to help in the re-designing of the tool which results not in the uneasy co-existence between the two tools but the implementation of a unique and once again coherent tool. It would seem then that the search for coherence, that the contingent approach poses as being the fundamental principle of the action of managers in the firm, may without a doubt be favoured

by the implementation of a real re-designing of management tools that the firm uses rather than by the other types of responses identified. This is, of course, merely a hypothesis which should out of necessity be confirmed or denied by complementary work.

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## APPENDIX A

### Template used for coding interviews

(Name of Interviewee). (Name of Interview).

This section was used to collect main information about characteristics and evolutions of markets, technologies, etc., global strategy of the firm, HR policies.

It was also used to ascertain each interviewee's background, including their level of understanding and use of management tools, objectives and results.

### *Significant points made*

This section summarises the important relevant points made by the interviewees.

### *Interview coding*

The main themes extracted from the interviews were organised based on the following:

- S Strategic human resources management considerations
- H Human resources policies considerations
- C Conception of management tools considerations
- CM Change in management considerations
- M Multiskill considerations
- EDO Effects on dynamic of organisation and work shift
- L Limitations in use of management tools
- P Potential management tool considerations
- F Future developments of management tools and HR policies

## **Appendix B – Synoptic informations on the enterprise**

### **Economic and financial informations**

Petrochemical industry sector

200 Employees

99.9 % owned subsidiary of an American group

Multiproduct enterprise (2 lines of plastics in the plant)

Sales to transformation industries (automobile, plastics, ...)

Oligopolistic or competitive markets depending on applications

ISO 9002 and ISO 14000 Certification underway

CFDT only representative trade union

Chemical industry collective bargaining agreement

### **Information on the workforce (Source: Panorama social, 1999)**

Average age: 34

Average service: 8 years

Average monthly remuneration: 12.841 FF (approximately 1960 Euros)

Complementary remuneration: 13<sup>th</sup> month ¼, profit sharing