

HUMAN SYSTEM AUDIT (HSA) FOR THE ANALYSIS OF HUMAN BEHAVIOUR IN ORGANIZATIONS¹

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This paper presents a description of Human System Audit (HSA), as an integrated proposal for the assessment of intangibles, for quality assessment in excellence models and, in general, for diagnosis and intervention in the human system in organizations, as well as for research on organizational human behaviour. The HSA consists of a theoretical model, a battery of instruments, and a system for management control. The article also describes some applications of HSA to human resource management.

Key words: social audit, human system audit, intellectual capital, quality.

En este artículo se presenta una descripción del sistema Auditoria del Sistema Humano (ASH) como propuesta integrada para la Evaluación de Intangibles, la Evaluación de la Calidad en los modelos de excelencia y, en general, para el diagnóstico y la intervención en el Sistema Humano de las Organizaciones, así como para la investigación del Comportamiento Humano en las mismas. El ASH se compone de un modelo teórico, una batería de instrumentos y un sistema de control de gestión. También se describen algunas aplicaciones del ASH en la gestión de los recursos humanos en diversas organizaciones.

Palabras clave: auditoria sociolaboral, auditoria del sistema humano, capital intelectual, calidad.

HSA AS A CONTRIBUTION FOR RESEARCHERS AND PROFESSIONALS WORKING ON HUMAN BEHAVIOUR IN ORGANIZATIONS. WHAT IS HSA?

Can Work and Organizational Psychology contribute useful elements for the conceptualization of *Internal human capital* or *People results*? Can it make valid contributions to Social Audit? Is it possible to make proposals that favour a potential consensus on and acceptance of the concepts of *Internal human capital* or *People results* in the scientific and professional communities. Can any theoretical foundation be found for it? Can we improve the way it is operationalized? Could we measure it validly and reliably with relatively simple instruments applicable to organizations? Could we conceive and propose it as a construct? In such a case, what would its internal structure be?

Given such questions, HSA (Human System Audit, or Human System Analysis) emerges as an integrated proposal, made from the context of Work and Organizational Psychology, for the Assessment of Intangibles, for the Assessment of Quality in models of excellence, and in general for the diagnosis of and intervention in the Human System in Organizations, as well as for research on human behaviour in them.

We consider it as an integrated proposal because it unites perspectives from Psychology, Social Psychology and Organizational Psychology with others more characteristic of Business Administration (Strategic Planning, Work Organization Systems, Human Resources Management Systems, etc.), Sociology and Anthropology.

We also consider it as integrated because – as other authors have pointed out previously – it proposes and relates in a systemic model multiple constructs which, in the context of Organizational Behaviour, have been studied separately from the different disciplines mentioned and within each one of them. As a consequence of the demands of positivist scientific methodology (which predominates in current research on human behaviour in organizations), advances in knowledge in our area (as in many other areas) are atomized (or at most connected to other, closely related constructs) and separated in lists of themes and topics, juxtaposed more than integrated in systemic models that are difficult to test empirically. The HSA proposes a theoretical model with an integrated systemic vision, and in the course of its development its concepts have been, and continue to be empirically challenged.

The HSA is composed of: 1. A theoretical model of Organizational Behaviour. 2. A battery of instruments for the assessment of different aspects and dimensions of organizations and of human behaviour within them. 3. A system of management control that permits assessment of the initial state of the organization's Human System, guides intervention for its improvement and allows assessment of its evolution over time, after the interventions carried out.

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Given these characteristics, the HSA emerges as a useful theoretical and practical instrument and as a robust complement for: 1. Carrying out Social Audits, both Operative (related to Efficacy) and Strategic (as opposed to those based on compliance with labour laws). 2. Reliably and validly assessing important intangibles of the organization, such as Intellectual Capital, and particularly core aspects of Internal Human Capital and Internal Structural Capital. 3. Reliably and validly assessing diverse aspects of Models of Excellence and Quality (such as the EFQM), in particular the agent variable People, and that of People Results.

Finally, it can be said that the HSA is a useful instrument, at both the theoretical and practical levels, for research in Work and Organizational Psychology, given its theoretical approach and the instruments it offers for the measurement and assessment of the constructs involved. Let us now consider each of these aspects.

THE THEORETICAL MODEL OF ORGANIZATIONAL BEHAVIOUR THAT GUIDES THE HSA PROJECT

The model we are about to describe has not changed substantially since it was first proposed in 1999, even though it has explored in more depth some micromodels of relations. For its description we can almost transcribe what we set down in 1999, together with what we have written on it recently (Quijano 2006). Subsequently, we shall describe some progress made towards its simplification. From the perspective of organizational assessment, the model presented here is a theoretical one, expressed in verbal form, of a general character and whose relations between its dimensions and variables are not described by means of established mathematical equations. The model does not state, for example, the proportion in which the Quality of the Communication System influences the Communication Climate, or the extent to which this Communication Climate influences employees’ Identification with their organization, or to which such Identification affects their Performance, the financial Results of the organization or the Internal Service Quality of a department. However, this general model does permit the proposal of micromodels, that is, more specific and formal relations among the different areas and dimensions of the organization (for example, the relationship between the variables just mentioned, Quality of the Communication System, Communication Climate, Identification with the organization, or Performance), so that, ultimately, the relations hypothesized between them can be empirically tested and expressed – at more specific and precise levels – through structural equations or other algorithms and specific mathematical relations.

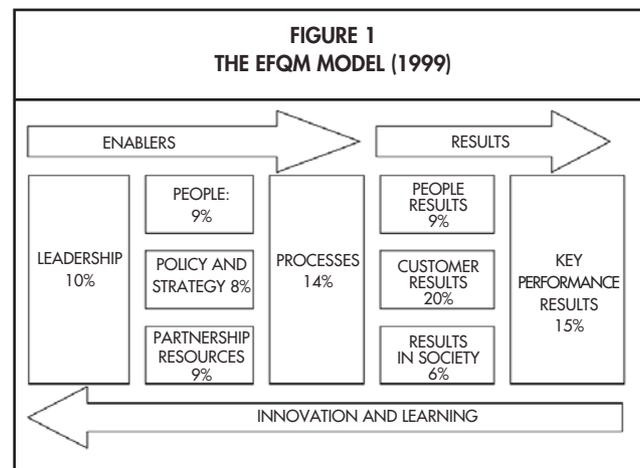
From the point of view of consultancy, this model offers a map that guides the steps for diagnosis or assessment (what to look at and what to assess) and of the relationships between the different dimensions. These dimensions and variables are at different levels, some of them being subdimensions and others broader dimensions. Therefore, we shall take each one in turn in our description, as though in a Windows program in which we look at the whole set of available and/or related elements and progressively open different windows that provide more detailed information on each one of them.

Obviously, from the perspective of Organizational Psychology, the model of organizational behaviour presented here focuses on the human behaviour that occurs in them. It is not, therefore, a complete and exhaustive model of what happens in an organization. The economic behaviour of an organization, for example, or the transformations undergone by the raw materials involved in production processes, will not be dealt with here. If this model refers to economic aspects, the technology used, the job structure, and so on, it will do so only insofar as they affect the behaviour of people or insofar as people – where they have the power to decide – select and shape certain structures and processes in relation to these matters in pursuit of the goals set. This having been made clear, the model underpinning the HSA is represented in Figure 2.

The Context

Our first assumption is that any organization is an open system constantly relating to a multi-faceted and changing context, with which it exchanges inputs and outputs, by which it is influenced and which it in some way shapes and contributes to constructing. Organizations, then, not only adapt to the context and react to it, but also act on it and help to fashion it in one way or another.

But the concept of Context involves, within an apparent



simplicity, considerable complexity with regard to its analysis. We can and should consider Context from different perspectives: the taxonomy of areas of the context (1), its dimensions (2), and its texture (3). The HSA does not deal in depth with the question of the context, though it does refer to some important issues that it is relevant to take into account in attempting to understand organizational behaviour.

By taxonomy of areas of the context we understand its classification on the basis of particular themes or content which differentially affect organizations, inducing them to shape in different ways their strategy, technology, structure, processes, systems, general behaviour and potential effectiveness. These areas are: economic, technological, political, judicial, ecological-provision of natural resources, labour market, commercial or product/services markets, and socio-cultural or related to dominant social values. In fact, although these are dealt with as different or as independent of one another, they are all inter-related; however, considering them separately makes for ease of understanding.

For example, the economic context will influence organizational behaviour in different ways, and among other dimensions we might consider: purchasing power of potential consumers of products or services based on income levels, availability of credit and the price of money, exchange rates, and stage of the economic cycle.

Indicators of other areas of the context would be, to offer a by no means exhaustive summary: the technology available on the market, government regulations, employment legislation, political decisions about control of the national debt and inflation (politico-judicial), availability of natural resources and raw materials, obligatory recycling, social pressure against contamination of the environment (ecological, judicial-legal, socio-cultural, etc.), availability of labour force equipped to deal with new technologies (labour market), the dominant social values (socio-cultural), competitive positioning of other companies in the sector, existing market niches (market, commercial), etc. etc.

These areas and their indicators are not all equally relevant for organizations. Indeed, one of the problems organizations must solve for assessing their context involves correctly identifying which of them have the most significant effect on them, either globally or on parts of the system.

In addition to the areas of the context, always dynamic, interconnected and changing, it is necessary to assess its dimensions and its texture, as a wide range of authors have advocated.

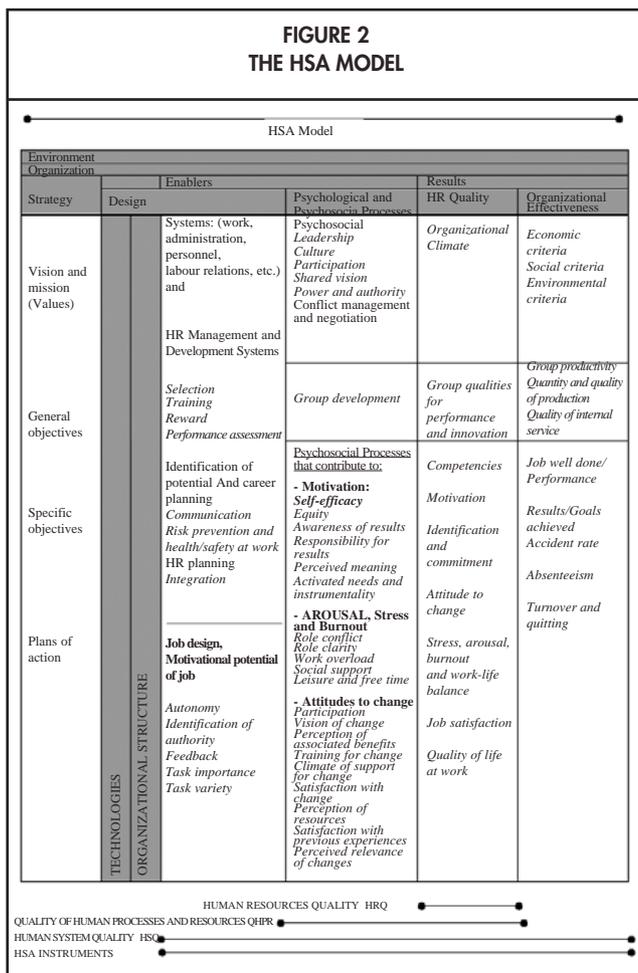
The Organization

Embedded in the context, reacting to it, adapting to it and shaping it proactively at the same time, the organization constructs itself and acts. And even though it behaves as a complex system of inter-related parts and elements, in order to make a conceptual approach to it we shall distinguish various dimensions in our analysis: Strategy (1); Design (Technologies, Structure and Systems) (2); Psychological and Psychosocial Processes (3); and Results (4), which includes two dimensions: People results and Human Resources Quality (or *soft* results), and People and Group results for the Organization and Society (economic/financial, productive and commercial; ecological; and social), considered as *hard* results or Organizational Effectiveness.

Strategy (1)

By strategic planning we understand the organization's response to the context after analyzing it (in terms of threats and opportunities), and of taking stock of its own resources for dealing with it (strengths and weaknesses). It is normally

FIGURE 2 THE HSA MODEL





undertaken by the Management with the participation of those with power in the organization. The number and type of such persons naturally depends on the participative nature of the organization's culture. However, from processes consultancy and from constructionist perspectives, much more participative methods have been developed that include all stakeholders, "getting the whole system in the room," such as the Future Search conference by Weisbord (1989), referred to by INNOVA as a *Prospective Seminar* (INNOVA. Associació per a la innovació organitzativa i social. 2003)

In any case, regardless of whether they are called "strategic planning" or "future search" activities, they look to the past and present, but above all to the future. Thompson and Strickland (1994), from an expert consultancy perspective, define strategy as the movements and approaches designed by management to ensure that the organization obtains excellent results. It involves five inter-related activities: 1. Developing a business concept and forming a vision of the direction in which the organization needs to go... establishing a mission. 2. Transforming the mission into specific result goals. 3. Developing a strategy that achieves the planned result. 4. Applying and putting into practice the selected strategy efficiently and effectively. And 5. Assessing the result, reviewing the situation and initiating corrective adjustments in the mission, the goals, the strategy or the application in relation to actual experience, changing conditions, ideas and new opportunities. (pp.2 and 3).

Whatever the nature of its process of development, finally, the company strategy defines, among other things, the domain or sector of activity in which the organization will operate, the business lines on which it will concentrate its resources, the technology it will incorporate in its productive processes, the structure and systems it will make use of to achieve its goals, and most importantly, the organizational effectiveness criteria it will use as a frame of reference for success. This set of elements integrated with one another in a systemic way constitute a form of seeing itself in the immediate future, operating in a particular way, and achieving certain goals. It is what is referred to as the *vision of the company*. The meaning given to this form of seeing itself in the future (immediate, medium-term or long-term), its *raison d'être* and its justification, together with its repercussions for the society in which it operates, constitute the company's *mission*.

In any case, vision and mission emerge from, and incorporate, certain values, as well as general and specific goals, which finally, and through a knock-on or domino process, translate into goals to be achieved by divisions, departments and individuals in their posts. Of course, the compact and rational process described here is in many cases merely a theoretical

one, which in practice is truncated or modified by multiple forces. Analyses of the context may be carried out or not and may be undertaken well or poorly, while the strategy may take into account all its dimensions or not, be in written form or not, and may be the right one or the wrong one. In any case, thought-out or otherwise, complete or partial, written or verbal, shared by all members or conceived and pursued only by management, whatever the form, the organization gives a response to its market and to a multi-faceted context, as we have seen in our analysis.

Determination of the elements of its response, especially with regard to effectiveness criteria, is influenced by the values of the organization sustained in its culture. This constitutes one of the foremost psychosocial processes that take place in it. The values of the dominant group's culture influence the choice of strategy. But the influence is reciprocal because, understandably, also the management and those who hold power often set strategies that include new values and/or involve the modification of some of those traditionally held in the organization and the suppression of others that until then had been useful for its success.

Design (2): Technology and Structure

One of the decisions incorporated in the company's Strategy is the Technology that the organization will adopt – from among those available in its context – in order to carry through its processes of production of goods or services, attention to clients, etc., in pursuit of its goals.

Whether the production technology adopted by the organization is unit, series or process-based will have significant repercussions for the organizational structure with regard to effectiveness, as Woodward showed many years ago (1958; 1965). Other indicators will also have an influence, such as whether the technology adopted in productive processes is analyzable or not, or familiar or unfamiliar, so that four types of organization will be shaped, *routine*, *non-routine*, *engineering*, and *craft*, with clear repercussions for task characteristics, the structure of jobs, and communications and relations between chiefs, subordinates and colleagues, among other aspects (Perrow 1970).

But what will have a highly relevant influence on organizational behaviour is the incorporation of new technologies, especially Microelectronics, Computing, Telecommunications and Automation, which have generated what Halton called the "second industrial revolution," and which are influencing and have profoundly modified not only jobs, roles, professional careers, interpersonal relations and teamwork, but also other aspects, including Human Resources Management, commercial distribution, and so on.



Obviously, decisions taken with regard to technology, as well as others related to decision-making and the distribution of power, to the need to generate work teams and facilitate the exchange of information for carrying out the task, or to bring the company closer to the client, etc., will lead to the shaping of one form of Structure or another: flatter or less flat, matricial, network, by smaller and decentralized business groups, virtual, and so on.

Design (2): Personnel Management Systems

If obtaining financial resources, the adoption of new technologies in the competitive sector, or the establishment of an adequate organizational structure are key factors for success and the attainment of strategic goals in any company, it is no less true that such success requires a fourth factor, in many cases as important as the others: a given level of qualifications, integration and commitment of its Human Resources.

And although we can assume that the percentage of business success explained by the Quality of Human Resources varies across organizations depending on the technologies they use, the productive sector in which they operate and other contingent variables, it is also to be expected that in all of them there is a necessary level of competence and commitment on the part of employees, and of effort to do their job well.

Peters and Waterman, in 1982, more than *demonstrating* it, called attention to the enormous importance of Organizational Culture in the excellence of the best and most competitive North American companies. Similarly, Misa and Stein (1983) made a point of identifying Human Resources Management as the main strategic force developed by the Fortune 500 companies in achieving their success. Leaving aside the difficulty of actually demonstrating scientifically the variance in organizational success explained by Human Resources, we believe this to be a key factor that should be analyzed carefully.

The Human Resources Management Systems of organizations could in some ways be considered as participants in their structure, insofar as they establish regulated forms of managing and dealing with people who are incorporated into the organization and work in it. Like the structure, Human Resources Management Systems are influenced (or should be influenced) by the Strategy established, in connection with the Vision of the company and the Values that inspire it, and by the Technology involved.

Although some authors (Yoder & Heneman, 1977; French 1983; Deguy, 1989; Dessler, 1988) consider them as practically synonymous (and many employers and managers too), it is important to underline the differences between three distinct subsystems within the Human Resources Management

System: that of Personnel Administration, that of Labour Relations, and that of Human Resources Management and Development, which today, in its more advanced forms, we call Strategic Human Resources Management. All three have been developing progressively and successively according to the different needs that have emerged over time from the personnel-organization relationship, and from organizations' different conceptions of workers. A fuller description of them and of their differences can be found in Quijano's (2006) book *Dirección de recursos humanos y consultoría en las organizaciones* (The Management of Human Resources and Consultancy in Organizations). The position defended here is in line with the contributions of Besseyre des Horts (1988 a and b), Singer (1990), Cascio (1991), Byars and Rue (1991), Gomez-Mejía, Balkin and Cardy (1995), and Dolan, Valle, Jackson and Schuler (2007).

It should be stressed here that the progressive development of each one of these subsystems has not led to the replacement or redundancy of the previous one; rather, it has integrated it, enriching and extending the assumptions on which it operated and the goals it pursued. Labour Relations did not mean the elimination of Personnel Administration, which continues to be necessary and is currently an essential part of all companies. Nor did Strategic Human Resources (HR) Management or Strategic Personnel Management lead to the redundancy of Labour Relations, which are still present and relevant in all organizations. What has happened is simply that the possibilities of the previous subsystems of Personnel Management have been increased and enriched, leading to an improvement in the organization's interaction with its people, and making more effective its contribution to the achievement of strategic goals and to Organizational Effectiveness. Many Human Resources Departments *de facto* cover the three functions characteristic of each of these subsystems: administrative, regulatory and motivational or integrative (InformAedipe, 1998). In larger organizations these functions are sometimes shared out among different Departments, but even so they may ultimately be part of broader departments of Personnel Management called by a range of different names. In a similar line would be the perspectives of authors such as French (1983), Dyer and Holder (1988), Besseyre des Horts (1988), Cascio (1989), Singer (1990), Dulebohm, Ferris and Stodd (1995) and Dolan, Valle, Jackson and Schuler (2007).

1. The Strategic Human Resources Management System

We shall now focus on the Strategic Human Resources Management System and on its specific function of integration and motivation of personnel. The first point to highlight is that it

is a System, and therefore a set of inter-related elements geared to the production of some outputs, so that any modification that occurs to any of them will affect, intentionally or not, and whether we like it or not, all the others in one way or another. Moreover, its high-quality output generating power will be largely related to the integration and inter-relation of the elements making it up (Quijano, 2006).

The Strategic Human Resources Management System can be considered as a Sub-system within the larger open System that constitutes the Organization, where it interacts with others, such as Strategy, Design (technologies, structure and systems), etc. Therefore, sub-system and system are ways of referring to either the elements of other, larger systems, or to relatively larger systems made up, in turn, of smaller, interacting elements that process inputs with the aim of generating outputs. Our position is in line with the contributions of Chiavenato (1981), French (1983) and Fitz-Enz (1984), as well as with the work of Dyer and Holder (1988), Singer (1990) and others.

Strictly speaking, the elements of the Strategic HR Management System can be classified in two broad sections: Support Techniques (1) and Human Resources Management and Development Systems (or Subsystems) (2).

1.1. Support techniques

By Support techniques we understand a series of technologies that prepare and lay the basis for the structuring and development of management systems. The most basic of them, prior to any HR system, is Job Analysis and Description, which allows the drawing up of an inventory of jobs in the organization; it also provides support for the Establishment of Recruitment and Selection Profiles; for Job Rating for Rewards; for Job Redesign for the Organizational Structure; for the identification of the knowledge, skills and attitudes (competency profiles) that need to be developed by means of Training (needs), and with a view to Career Development and to the setting of Performance Assessment Criteria.

Even though some authors have spoken of “the end of jobs,” due to the vertiginous pace at which they change in today’s context, it is a somewhat sensationalist expression, since, in the end, there is always a set of tasks carried out by specific people, interwoven or integrated in a process addressing the organization’s basic task. This set of tasks – be they stable or changeable, more independent or more interdependent – which people have to do in their job (on a more individual or more group-centred basis) in order to achieve the organizational goals is what we continue to call jobs. Jobs will probably become more flexible and changeable in the future, and also probably more interdependent, but they will continue to exist.

And their description (conceived as the identification of duties, responsibilities and working conditions, as well as the description of tasks to be done, and above all of functions to fulfil and goals to achieve), and analysis (conceived as task dimensions or characteristics, and as required skills, knowledge and competencies) will continue to be necessary for establishing Management Systems. For example, job design will be carried out with a more individual-centred or more group-centred, more static or more dynamic perspective in relation to processes in which workers are involved (Hackman 1983, 1987), but it will continue to be necessary.

Other support techniques based on Job Analysis and Description are, as mentioned above, Job rating, Identification of profiles (included as part of job analysis), Job Redesign and Enrichment, and Job Inventory.

1.2. Human Resources Management Systems

Support techniques permit the establishment of what are called Human Resources Management Systems. These cover the systems of: Selection, Training, Rewards and Compensation, Performance Appraisal, Identification of Potential and Career Plans, Communication, HR Planning (or forecasting management and Risk Prevention/Occupational Health. Insofar as all of them are subsystems of a larger system they are inter-related (or should be inter-related), contributing to the power and health of the larger system. If they are broken up or dispersed, so that there is no relation between them, then the outputs of one will not serve as inputs for another, the global HR system will lose strength and, at worst, there may be a juxtaposition of contrary or contradictory actions. The result is that not only will no added value be contributed to the management of the organization, but Organizational Effectiveness may actually be adversely affected. Moreover, their integration is linked not only to the relation between them, but also to those between them and the other components of the organizational system we are describing. Thus, HR Management Systems should be connected to the Company Strategy, oriented to the achievement of the goals it sets, and related to the organization’s values and culture.

The Performance Assessment System, for example, when well integrated with the Global HR Management System, gives outputs that are good inputs for the System of Rewards and Compensation (setting of variable retribution), for that of Training (study of training needs and assessment of training actions), for that of Identification of Potential and Career Plans (identification of potential candidates), and for that of Selection (selection success criterion). Likewise, the Training and Communication Systems must offer support to that of Risk

Prevention/Occupational Health. Furthermore, all of these systems should be connected not only with one another, but also, as we mentioned above, with the culture and strategic goals of the organization. If, for example, the organization wishes to promote a Total Quality culture, it cannot continue to give rewards based on years of service, or simply on quantity of product produced, or without taking into account efforts such as working with a particular style that expresses the new corporate values promoted. Likewise, it must incorporate in the Performance Assessment System criteria related to Total Quality, and support the new values and behaviours desired through the Training and Communications systems. A graphic representation of the Human Resources Management and Development System, conceived in its broadest sense, is shown in Figure 3.

1.3. The quality of Human Resources Management Systems

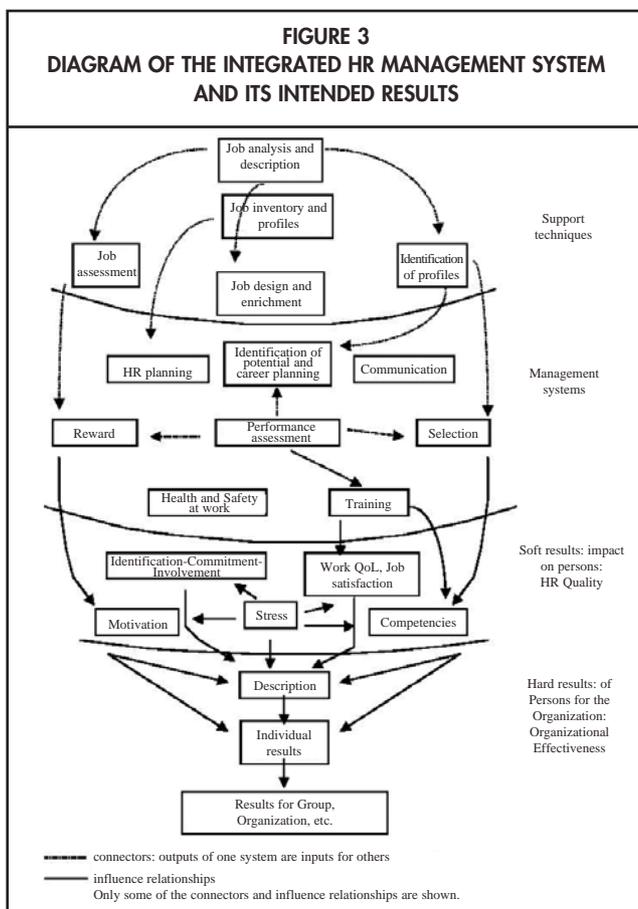
The characteristics described are related to what we have called the quality of the organization's HR Management Systems, which can be defined as the extent to which these management systems present characteristics that increase their capacity to

generate, in employees and groups, favourable results for themselves and for the organization. Their quality is related to their capacity to recruit, incorporate, retain and develop personnel that are competent and satisfied with their working life, effective and efficient in the achievement of the organization's strategic goals in their own jobs and in the groups and teams of which they are members. A fuller description of the concept and the methodologies used for its measurement can be found in Chapters 9 and 16 of the book cited previously (Quijano, 2006).

Psychological and Psychosocial Processes (3)

The decisions taken by the management of an organization as regards its design or redesign with a view to the achievement of its strategic goals always have an impact on the people working in and involved with the organization. Not only personnel management systems, but also new working procedures, the incorporation of new technologies or decisions about structure have a greater or lesser, more positive or more negative impact on the organization's personnel. Some of these processes take place in individuals and affect their well-being, their satisfaction, their motivation to work, their bond with the organization, etc. Others also affect people, but they do so through group phenomena that cannot be reduced to the sum of the phenomena experienced by each person in particular. These group processes, such as the group or organizational climate, the leadership provided and acknowledged or the corporate culture generated, can be considered as important effects on persons and groups that will affect their behaviour in the organization. Furthermore, such phenomena are not only generated as results of decisions about design or re-design, but in turn generate certain behaviours in employees – sense of identification with and pride in belonging to the organization or precisely the opposite –, finally influencing both the achievement of organizational results and indeed the behaviours of managers. Therefore, talking about processes and results always implies a relative position. A process can be and often indeed is the result of a previous process, generating at the same time its own results.

In this context, we shall now concentrate on Psychological and psychosocial processes, that is to say, on those individual and group human phenomena which, although in some ways the fruit and the effect of Management Systems, Structure, Strategy, and Technology, at the same time influence them, and generate in persons and groups a way of feeling, of doing and of being (Quality of Human Resources, at the individual and group level), resulting ultimately in "a job well done" and in the achievement of the organization's strategic goals (Organizational



Effectiveness). These phenomena impregnate the occupational/professional life of individuals and groups and affect all aspects of organizational life. As Pinilla pointed out in reference to Psychology, we might also say, referring to these Psychological and psychosocial processes, that they are not everything in the Organization, but they are present in everything.

First, we shall consider the psychological processes that take place at the level of persons as individuals. Needless to say, our discussion will not be exhaustive, and we shall not describe all the psychological processes that people experience. But we shall deal with some of the more important and significant ones in the work context, useful for accounting for a substantial portion of the behaviour of individuals in the organization, namely: Self-efficacy, perception of Equity, Role Clarity, Role Conflict, Work Overload, Instrumentality, Awareness of Results, Awareness of Responsibility for Results, Awareness of Meaning of the Job, and perception of Social Support. Numerous authors have written about these processes, and although we shall not cite them formally, we are undoubtedly in debt to Bandura, Vroom, Adams, Hackman and Oldham, to name but a few.

These Psychological Processes are accompanied by others of a more markedly social nature that we shall refer to as Psychosocial. They affect groups, and are related to intra-group phenomena that take place within work units and groups, as well as phenomena that occur between groups and ultimately affect the whole organization. Some are more all-encompassing than others, embracing within them processes of more limited scope. All are inter-related. In our view, the most important are the following: as the most comprehensive, Organizational Culture and processes of Organizational Change (which in the most complex of cases would include Change of Organizational Culture); perhaps of less extensive scope, but also highly important, would be Leadership, Group Development Level of formal work groups, Participation, Power, Conflict, Decision-making, and Negotiation processes.

Another all-embracing psychosocial process we shall include among those we are going to define as *processes/results in persons and groups* is Climate. Despite the fact that Climate also generates attitudes to work and other processes/results, such as Motivation or Commitment, we shall consider it as a "people result," borne out of the psychological processes mentioned above, and forming part of what we shall call the Human Resources Quality of the organization.

Results (4):

1. Human Resources Quality (soft results)

Here we focus on the results that HR Management seeks to

obtain in relation to personnel in any organization, or what we term its Human Resources Quality. It has components at the individual level, the group level and the organizational level. The greater or lesser quality of an organization's HR will determine its results in relation to people and groups, which will constitute its Organizational Effectiveness.

We shall begin by looking at the aspects that make up the organization's HR Quality, from the individual perspective, and of course from the perspective of people as employees and professionals working in and for an organization. We shall therefore make no reference to their quality as human beings, which is by no means within our brief here. Thus, a particular individual may, for example, have excellent personal qualities (which we in no way assess here) and at the same time be of low quality as an employee of the organization, lacking the skills and knowledge for doing the job well.

Having cleared up this point, we shall now distinguish, among the dimensions making up an organization's HR Quality (at the individual level) some that are supposedly related in a more direct and linear way to the organization's people results (job well done: results and performance; absenteeism; accident rate; and propensity to leave the job) and others whose relationship to these results is better expressed by mathematical functions that are either curvilinear or of other types. In the first case it can be said that, in general, the higher the level in the dimension, the better the individual's results for his or her organization. In the second case the relationship does not follow this function, and it is not possible to establish either a direct or an inverse relationship (more = more, or more = less); rather, the relationship will be of another type, such as: above a certain level there is no influence, or low and high levels influence negatively and moderate levels influence positively. Let us explore this more closely.

The dimensions of the first group are as follows: Motivation, Identification with and Commitment to the Organization, Involvement in the job, and level of Competency. Of these characteristics it can be said, in general, that the higher their level, the better the results obtained by individuals for the organization, the better their job performance, and the lower their absenteeism, accident rate and propensity to leave the job.

The dimensions we consider from the second group are: Stress, Arousal and Burnout, Job Satisfaction, and Quality of Professional Life. Their relationship to Organizational Effectiveness is not linear. High or low levels of Stress, for example, negatively affect job performance, whilst moderate levels benefit it. Likewise, high levels of Job Satisfaction do not ensure high levels of job performance, and low levels lead people to situations of boycott and reduced performance.

To sum up, diagnosis of an organization's HR Quality involves – at the individual level – assessing and establishing levels of Competency, Motivation, Identification with and Commitment to the Organization and Job involvement. In addition, it is necessary to assess the individual's level of Stress, Arousal or Burnout, Job Satisfaction and Quality of Professional Life, which, furthermore, includes, the person's Work-Life Balance. All of this is highly important with regard to performance levels and Organizational Effectiveness.

Considering the group level, in addition to aspects related to Individuals' identification with the Organization (considered on the individual plane, but with a clear group-based dimension), it is important to highlight Group Climate and level of Functioning of formal groups as Work Teams (or fit between the group's qualities and task uncertainty/demands). If we consider the organizational level, HR Quality of the company can be related to the Organizational Climate, and in a sense to all the other dimensions (overall motivation level of company personnel, level of competencies, level of stress, etc.), but here we must be alert to the problems raised by the aggregation of measures for the assessment of variables at the organizational level. Of relevance in this regard is the evolution of the concept and measurement of Self-efficacy proposed by Bandura (1997, 1998) as Collective Self-efficacy. Given the above, then, HR Quality of an organization can be defined as the degree to which the favourable dimensions we have described – motivation, commitment, competencies, satisfaction, group development and qualities of the group for performance and innovation, and so on – are present and developed in the persons and groups making it up. A basic hypothesis of the proposed model is that the organization's HR Quality (or soft results) is directly related to Organizational Effectiveness (or hard results).

2. Organizational Effectiveness (Hard results)

All the dimensions of the model of organizational behaviour dealt with so far have the purpose of achieving Organizational Effectiveness. However, this concept is open to multiple interpretations, and does not have the same meaning in all organizations. Since it is a value judgement that can affect many dimensions, it is obviously underlain by many value-based criteria that must be taken into account in each specific circumstance. But even though each organization chooses and understands Effectiveness in its own way, we can nevertheless describe a series of criteria common to all, capable of shaping different forms of understanding Effectiveness, and from among which each organization chooses those which will constitute its specific and peculiar way of interpreting it.

First, Organizational Effectiveness can be conceived (or constructed) as the result of the company's Efficacy and Efficiency. Efficacy could be defined as the relation "achieved outputs/expected outputs or standards" (O/S), and Efficiency as the relation "achieved outputs/inputs invested" (O/I). The concept of Efficiency would include the costs and/or resources used for achieving the outputs or goals pursued, and together with that of Efficacy would be an important component of Effectiveness.

Second, we have taken into account the basic criteria of Effectiveness contributed by the most significant existing models: the goals model; the systems model, the multiple components model; and the competing values model as an attempt to synthesize the previous ones. The different models correspond to different ways of conceiving and observing the organization: as a rational system (goals model), as an open system (systems model), and as a political system (multiple components model). Each one of these is applicable to a greater or lesser extent to the three key points of organizational functioning: 1. Effectiveness in the acquisition of resources; 2. Effectiveness in the process or processes of transformation; and 3. Effectiveness in the achievement of different types of results.

From a more concrete or operative perspective, the assessment of Effectiveness refers to specific criteria. Our model of organizational behaviour takes into account multiple criteria grouped in different sections, and referring to different levels of the organization: the individual or job level, the group level (units and/or departments), and the organizational level. Likewise, these criteria include not only the results of individuals for the organization, but also the processes/results in individuals, or HR Quality.

At the individual level, as people results for the organization, we consider two positive criteria to promote and three negative ones to be reduced, as referred to earlier. The positive criteria would be: results achieved through work, and performance or way of working (job well done); the negative criteria would be: accident rate, absenteeism and leaving the company (the last of these being particularly liable to different consideration depending on the organization's policy and strategy).

At the group level, as people results for the organization, we consider the achievement of task goals or results obtained by departments or groups, such as quantity or quality of production, productivity, and quality of internal service (provided to internal clients).

At the organizational level, which includes and is founded on the previous levels, the HSA model considers multiple criteria grouped in different sections: Economic: financial, productive and commercial; Social: internal and external; Ecological:

fulfilment of norms and efficient use of energy; and Others: flexibility and acquisition of resources. A fuller description of these and of the human behaviour variables deriving from them – such as shared vision, perception of consensus on the vision or communication of the vision – in the book by Quijano (2006) already mentioned.

Relations between the dimensions. Their connection with Organizational Effectiveness

Having described the elements making up the Model of Organizational Behaviour that underpins the HSA, and despite the fact that we have repeatedly highlighted the relationship of interdependence between all of them, some may continue to conceive of them as juxtaposed elements with no connection between them. But this is not the case.

The Context influences the Organization, but the latter not only adapts to it in a reactive fashion, but indeed actively influences it and shapes it in a particular way. Organizations, for example, are not simply “immersed in a highly competitive environment (context)” (as we are tired of hearing): they construct it that way. On interpreting it thus and adopting a competitive attitude toward it, they act competitively and contribute to shaping it with certain characteristics. They often forget that they are responsible for that Context in which they are immersed. The Organization that manufactures cars modifies the Context, not only the physical and economic one, but also the behavioural or social one.

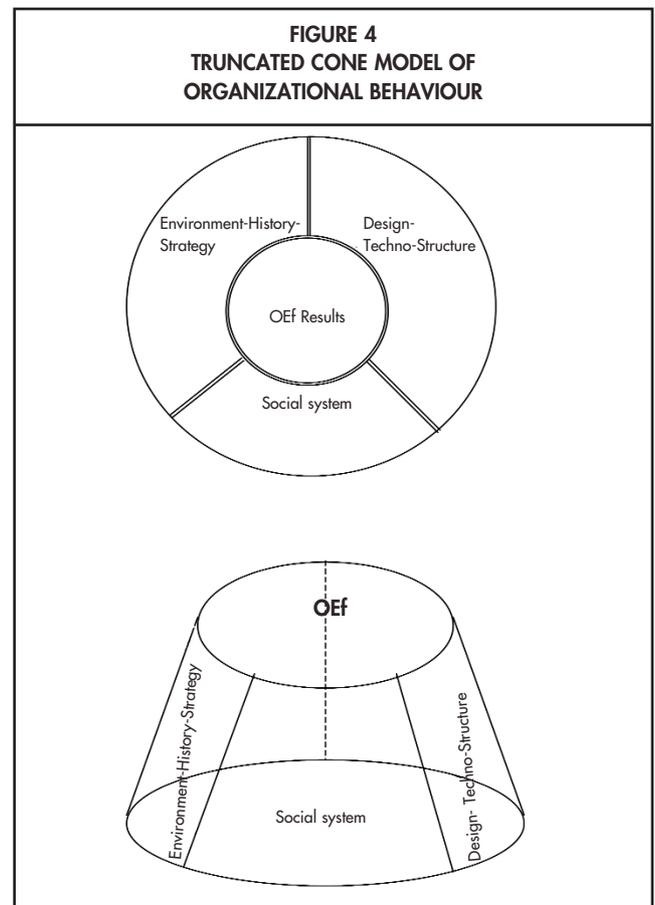
Obviously, the changes an Organization generates in its Context through its Organizational Effectiveness (OEF) will be the object of a new analysis for the redefinition of its Strategy in a never-ending circular process, and the Strategy will shape once more the Techno-Structure and Systems, which will in turn generate new Psychological and Psychosocial Processes. These will lead to new results in persons (shaping their quality as professionals and workers), who, through their behaviour, will produce results for the organization that once again constitute its OEF. The OEF of an organization confirms the success or failure of its Strategy, and provides data for its redefinition.

Although the model shown in Figure 2 and its juxtaposed columns may suggest a sequential or even linear relationship between its dimensions, the reality is otherwise; rather, it is often the case that all the elements act simultaneously on one another in circular, not always linear relationships, ultimately creating a web of interrelations, expressive of the social system’s complexity. Obviously, the formulation of increasingly precise mathematical models will oblige us to focus on smaller parts of the system, to explore the inter-relations of their elements, translated into relational hypotheses and, in some cases,

structural equations, regression models or other particular mathematical relations. For example, if we wish to increase our theoretical knowledge about organizational behaviour, it will be necessary to establish a more accurate model of how certain psychological and psychosocial processes (role conflict, role ambiguity, work overload, social support, level of group development, etc.) influence employees’ stress levels, and the consequences of these levels for job performance, job satisfaction or worker absenteeism and accident rates. Or a model of how certain aspects of Management Systems (such as Rewards, or Performance Assessment) generate perceptions of equity or inequity and of instrumentality, results awareness, etc., which in turn have a decisive influence on employees’ motivation or on other processes/results. The need for parsimony, on the one hand, and the level of general and global analysis, on the other, will oblige simplification of the number and description of relationships between the different dimensions of organizational behaviour.

If our goal is fundamentally consultancy-related, and we wish to explore the question of which variables or dimensions should be taken into account for obtaining improvements in particular

FIGURE 4
TRUNCATED CONE MODEL OF
ORGANIZATIONAL BEHAVIOUR



organizational results (individual, group or systemic), then it will be necessary to make exploratory analyses on the *de facto* relationships between the dimensions and variables measured, with the aim of identifying those which are clearly associated with such results. Techniques for the analysis of multiple correspondence or for data mining will not be particularly useful for this purpose.

2.2.7. *The truncated cone model as a synthesis of the model proposed*

What we have said up to now can be summarized by proposing a synthetic model that would be of use for consultancy purposes. The model shown in Figure 4 considers the organization and its global behaviour as a truncated cone, whose upper surface constitutes Organizational Effectiveness, supported by the lateral surface of the cone, divided into three areas: 1. The area of Context/History/Strategy; 2. The area of Design (Structure/Technology/Systems); and 3. The area of Human/Social System. These three areas should be considered in any consultancy process so as to be able to make a correct diagnosis of the present moment of the organization and of its internal dynamic, understanding it as a system that builds its future, immersed in its context. This model and this perspective reflect the oldest socio-technical tradition.

CONTRIBUTIONS OF THE HSA TO ASSESSMENT AND DIAGNOSTIC TECHNIQUES, AND TO THEORETICAL KNOWLEDGE ABOUT ORGANIZATIONAL BEHAVIOUR

The HSA was conceived as an aid for the consultancy and management contexts, and as a useful research instrument, with a clear intention to unite academia and profession. It has been making contributions of different types emerging from the needs of the two worlds, professional and academic. Some have focused on the development of measurement instruments, others on the proposal and testing of new constructs, and others on the analysis of relations between variables in organizations.

Measurement instruments. The HSA battery

In response to the need of organizations and of professionals for reliable and valid instruments for assessing Internal Human Capital, or People Results, or Soft results of the organization (HR Quality) for intervention and management control, the HSA team developed a 90-item questionnaire for measuring these constructs in a reasonably comprehensive way, and whose structure, reliability and validity have been solidly established.

Constructing a questionnaire that permits valid and reliable measurement of all the constructs of the HSA model, and whose application is not hindered by excessive length, involved making

some decisions. First of all it was necessary to choose for each construct (e.g., Climate referring to rewards) – or for each subdimension of a construct (e.g., Pride in belonging, as part of Identification) – a minimum number of items – three or four –, which meant renouncing the theoretically desirable reliability levels obtained with a larger number of items. Secondly, it was necessary to choose the best, based on the one hand on criteria of content validity, and on the other on statistical criteria of construct validity, that is, items presenting good levels of saturation in the factors discovered in the exploratory analyses or confirmed in the confirmatory analyses, carried out by ourselves or by other authors in previous applications. In some cases we chose items from tried and trusted scales (e.g., from the Bass scale for measuring Transformational Leadership, or from the Maslach scale for Burnout); in others we constructed them ourselves in accordance with new concepts defined for particular cases (e.g., for Need-based Commitment, defined in the HSA as part of Instrumental Commitment (very close to or overlapping with Meyer and Allen's *Continuance Commitment*). On some occasions, moreover, we made convergent validity studies, relating the results obtained with the short HSA questionnaires to those obtained with the original questionnaires. This is the case, for example, of Bass's Transformational Leadership measure. The abbreviated Transformational Leadership instrument used in the HSA was applied in conjunction with Bass and Avolio's MLQ-5X scale (Bass, 1985) to a sample of 105 public hospital employees in Spain and to 179 staff at a public health centre in the United Kingdom. Internal consistency of the two versions is good, with results of $r = 0.95$ for the Spanish sample and $r = 0.94$ for that of the United Kingdom (Berger & Carbonell, unpublished work).

Contributions to theory: some new constructs proposed and analysis of hypothesized relations

The HSA has proposed some new constructs it considers to be of theoretical and practical interest. For example, it proposes the Need-based Commitment construct, as a form qualitatively distinct from Instrumental Commitment or Continuance Commitment. The core of this type of commitment lies in a psychological link between the employee and the organization based on his or her dependence on the extrinsic incentives it provides (Kelman spoke of compliance or of exchange). But this exchange can be experienced positively, in a climate of equity and satisfaction with the agreed transactions – we would be talking about the "satisfied mercenary" – or unsatisfactorily, with perceptions of inequity in the employee and an immediate desire or intention to quit, as soon as reasonably possible. The employee's true current attachment is maximally weak, and the



resulting behaviour totally different from the case of the positive experience. These would be employees who remain linked to the organization solely due to the need to earn a living, but who, if they could, would immediately break the bond and leave the organization. In the meantime what can be expected of them is carelessness, avoidance of work, lack of motivation, etc. Thus, we have two types of employee, both with instrumental or exchange commitment, but truly different in the way they are attached to the organization and in their behaviour. In the view of the HSA team, organizations include the type of employee whose link with them is based on this Need-based Commitment, and we consider it important to diagnose what percentage of personnel are in such a situation and in which areas of the organization they are employed. It is for this purpose that we drew up the proposal for this new construct and included in the instrument a part designed for the relevant assessment.

The HSA team has also worked on other constructs, such as Group Development, Task Uncertainty or Communication Climate, as well as on the nature of some variables (Motivation) and on the models of relations between them. Within the motivation model proposed in the HSA (ASHMOT, Quijano & Navarro, 1998) two distinct lines have been developed. The first of these has continued to explore the relationships between the variables incorporated in the model. Study of the relations between Self-efficacy beliefs and perceptions of instrumentality (Navarro, Quijano & Barnett, 2003) have revealed initial evidence of how Self-efficacy beliefs are associated with perceptions of high instrumentality in the case of intrinsic motivation. The second line has explored the motivation dynamic through conceptual and analytical tools of complexity theories. Thus, initial work took place with the simulation of a model that incorporated some of the basic HSA-MOT variables, finding that the motivational dynamic displayed in the simulation was of a non-linear nature (in fact, it was *chaotic*; Navarro & Quijano 2003). This result was subsequently confirmed in an empirical study using the diary technique. In total, 75% of participants displayed this type of dynamic (Navarro, Arrieta & Ballén, 2007). The relevance of these results resides in the way they call into question some assumptions underpinning a large part of the established theories on job motivation, such as stability of the phenomenon or linearity of the relationships between variables (Arrieta & Navarro, in press). It is therefore important and useful that these results have also been disseminated in the professional community (Navarro, 2008). Such research has, moreover, served to reveal the existence of different dynamic patterns (linear, random and non-linear), leaving for future study the question of why such different patterns exist.

Other important developments have taken place at the group level and in the psychosocial process called level of Group Development. We have worked, first of all, on the clarification of the fundamental criteria constituting group personality (Roca, 1998). Thus, level of group development of work teams has been characterized as composed of five basic dimensions (interrelation, identification with the group, social value of the task, orientation to group goals, and group coordination) (Meneses, Ortega, Navarro & Quijano, under review). Secondly, we have tried to identify the characteristics that mean certain tasks have to be carried out in groups. A model has been proposed (the MITAG or uncertainty of group tasks model), together with a measurement tool that has shown sound psychometric results (Navarro, Díez, Gómez, Meneses & Quijano, in press). We believe this step to have been of great importance, since the existence of work groups or teams in our organizations stems largely from the characteristics of the tasks to be done – an assertion supported by evidence from the professional world (Navarro & Quijano, 2007). The subsequent steps in this line of work will involve research on the relation between task uncertainty and level of group development and the potential fit between them as a crucial aspect in group effectiveness.

The reduction of questionnaires and the synthesis of information on People Results provided in the initial analysis

Even choosing few items for measuring each of the constructs or subdimensions of constructs, the complete questionnaire that permits measurement of all those considered in the HSA model had (and still has) more than 200 items, making it too long and demanding for application in full in organizations. Not only is its length a problem, but the enormous quantity of information provided, despite arousing a great deal of interest in managers and consultants initially, ultimately overwhelms them, so that they are at a loss as to how to handle it. We imposed, therefore, a reduction and simplification of questionnaires and constructs, at least for an initial diagnosis and approach to the state of the Human System of the Organization, and to that of People Results.

Therefore, we have worked on identifying the core information corresponding to the construct of People Results, or Internal Human Capital, achieving two things: condensing and reducing the initial core information without losing the original richness and variety, and cutting the length of the questionnaire to 90 items. The definition of the concept, the procedure followed for testing it, the samples used from four European countries (Portugal, United Kingdom, Poland and Spain) and the



exploratory and confirmatory factor analyses carried out, together with the results obtained, are presented in the article entitled "The structure of the construct 'people results' according to the EFQM model in the healthcare sector of certain European countries: a cross-cultural study", currently under review at a European journal. A summary of the information can be found in the oral presentation published on the HSA website (www.hsaudit.net).

We set the usual statistical criteria for the acceptance of items and dimensions with standards perfectly acceptable in the scientific community (Kaiser-Meyer-Olkin (KMO) Index > 0.5; Bartlett Sphericity Test $p < 0.05$; Saturations > .40; Variance explained by the first factor > 40%; and Cronbach's Alpha > 0.6). The 90-item questionnaire would be recommended for an initial diagnosis of People Results, on the basis of which it would be useful to apply other items in order to explore more deeply those aspects requiring greater analysis and intervention. Figure 5 shows the information provided and obtained with the 90-item questionnaire. Excluded from this questionnaire and from

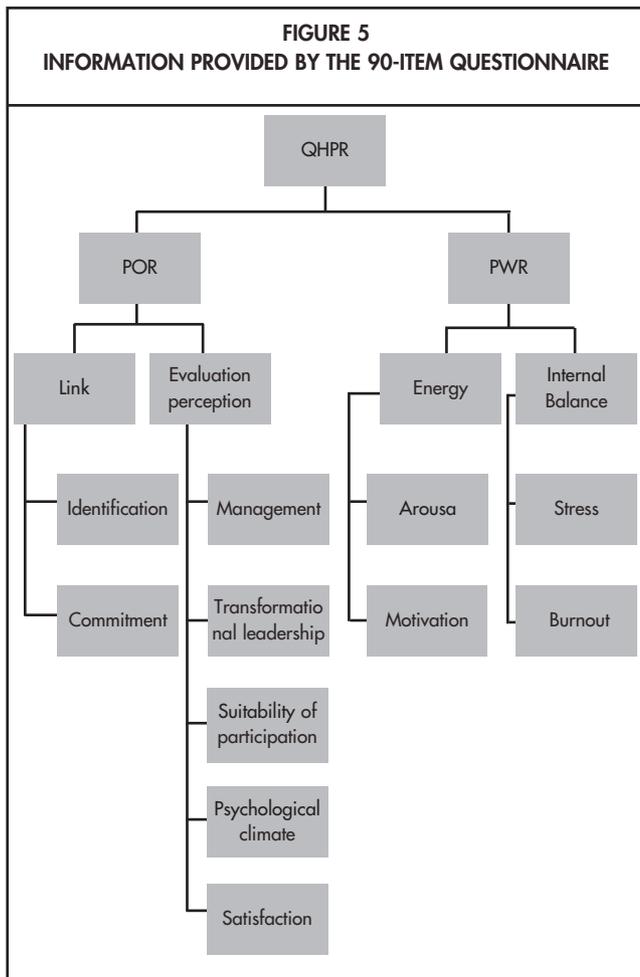
corresponding analyses were the items on Group Development of work teams, since they were observation units on a different level.

Instruments for measuring Quality of Human Resources Management Systems and the concept of Quality of the Human System of an Organization

Related to the Human Resources Quality of the organization (People Results or Internal Human Capital), the HSA has proposed the concept of Quality of the Human System of an organization. This includes not only Human Resources Quality, but also Quality of HR Management Systems (Selection, Rewards and Compensation, Training, etc.) The concept of Quality of Management Systems and the techniques proposed for its measurement are dealt with more comprehensively in Chapters 9 and 16 of the book *Dirección de recursos humanos y consultoría en las organizaciones* (The Management of Human Resources and Consultancy in Organizations), by Quijano (2006). The HSA uses a method inspired in job analysis and assessment. Following the opinion of experts, it has been possible to identify the core dimensions or factors of quality of the different management systems, and by means of explicit criteria these dimensions are scored to obtain a global score. For example, referring to the System of Rewards and Compensation, five dimensions have been identified: 1. Its internal coherence. 2. Its external competitiveness. 3. Communication of the system to staff. 4. Suitability of the system for the company's strategic goals. 5. Its review and self-assessment mechanisms. Each one of these dimensions is defined and operationalized in indicators. A semi-structured interview questionnaire permits consultants to obtain information from two "informants" on the system. The assessment criteria are also defined. The application of these criteria by two consultants produces scores for each dimension and for the global system. An inter-consultant agreement coefficient gives the measure of reliability of the score for the Management System Quality in the system analyzed. As regards Quality of the Human System, since it includes measures referring to different units of observation of the organization (People and Management Systems), it cannot be proposed or tested as a construct. Even so, its concept and operationalization are useful for assessing Intangible Assets, combining Internal Human Capital and a considerable portion of Internal Structural Capital.

HSA as a system of management control and intervention in organizations

In view of what we have said so far, it is not difficult to understand how HSA can be used as an instrument of support for the control and follow-up of the evolution of the Human



System Quality of the Organization, or of the Human Resources Management Quality, or of its People Results after the initial diagnosis carried out and the measures of intervention and management taken. A clear example of such use is provided in the book by Dolan, Valle, Jackson and Schuler (2007) "Human Resource Management," whose Chapter 17, entitled "Assessment and efficacy in human resource management" describes the case of CaiFor, the Insurance Group of Spanish bank *La Caixa* (case study by Quijano & García, 2007), in which it is shown how the HSA was used for diagnosing the People Results and carrying out a follow-up and control on their evolution after the adoption of diverse measures for improving and developing them over some years. The data analysis made in 2005 compared with that of 2002 revealed statistically significant changes showing the evolution and improvement that took place in that period. Of course, these data do not establish causality of the relationships; nor do they permit us to demonstrate that the results are due to the intervention actions (the design is not an experimental one), but they do corroborate the hypotheses proposed for the intervention and reveal the improvement that took place. The difficulties involved are no different from those faced by Marketing Departments, or even those of Production, for establishing the causality of the effects desired and/or achieved through intervention decisions.

THE FUTURE PROJECT OF HSA

We have attempted here to provide a more or less comprehensive account of what HSA has been and what it is today. As regards its future, the team that developed it continues to be committed to its development and improvement. Its goal remains linked to purposes of helping professionals and organizations, offering them not only a valid and reliable diagnostic instrument, but also systems (on which work is currently in progress) for identifying the particular relations between the different variables in each organization, with a view to orienting more appropriately their intervention decisions. Likewise, the team is still committed to the theoretical development of models of organizational behaviour in the line of progressively greater simplicity, at the same time as they increase in complexity.

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