Competences to Improve Productivity: A Structural Model

Competencias Para Mejorar La Productividad: Un Modelo Estructural

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ABSTRACT

The working world has changed significantly over the past ten years, and when in Latin America the absence of scientific development in human resource management is accused in advanced regions (eg Europe, North America, Japan, Australia) has created a new paradigm: Workplace Skills for Professional Excellence, located in the center to the people and the organization as a site of stimulation of lifelong learning, personal potential here is the most precious heritage. In this paper we review some background about the working world and their demands and present a Structural Model for Competencies for Productivity (MECPRO) for the management of human resources, useful for its structural view and the possibility of becoming a competitive tool for easy application and versatile as the organizational context.

Keywords: Demand for Skills, Education Competition, Productivity, Employment Challenges.

RESUMEN

El mundo del trabajo ha cambiado significativamente en los últimos diez años y, cuando en Latinoamérica la ausencia de desarrollo científico en gestión de recursos humanos es acusado, en regiones avanzadas (p.e. Europa, Norteamérica, Japón, Australia) se ha generado un nuevo paradigma: las Competencias Laborales para la Excelencia Profesional,

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situando en el centro a las personas y a la organización como un escenario de estimulación del aprendizaje permanente, aquí el potencial personal es el patrimonio más preciado. En este trabajo revisamos antecedentes sobre el mundo laboral y sus demandas y presentamos un Modelo Estructural de Competencias para la Productividad (MECPRO) para la gestión de recursos humanos, de utilidad por su visión estructural y su posibilidad de constituirse en una herramienta competitiva de fácil aplicación y versátil según el contexto organizacional.

Palabras clave: Demanda de Competencias, Competencia Laboral, Productividad, Desafíos en el Empleo.

Introduction:

The world of employment has radically changed in the last 10 years, and due of that, recently have being developed a new paradigm to improve human resources inside organizations: “Work Competencies for Professional Excellence”. To get on board on this major challenge, some relevant employ experts have produced models of application in Europe and United States: Bunk (1994), Mertens (1996; 1999; 2000), Echeverría (2001; 2002), SCANS (1992; 1993). Nevertheless these efforts have severe deficiencies inducing confusion on terrain.

Last four years we developed a model that goes over these limitations, our “Structural Model of Competencies for Productivity” which has theoretical and scientific rigor and it shows a General Work Competence containing four competencies inside: Scientific, Practical, Personal and Social; applicable throughout dimensions and indicators that guides managers to improve the institutional quality. This paper, nevertheless, it’s a synthesis of our latest book published on 2008, which demonstrates the big challenges for employees and the vision of competencies to attend those demands and even go over towards the excellence.

Let's see the challenges that explain the strong change of employ environment.

Table 1

MAIN REQUIREMENTS FOR EMPLOYEE OF 21ST. CENTURY

Projects management for excellence in work performance

- Application of the work projects approach because is clearly useful for productivity.
- Attention to demands to propose work projects.
- Engage total responsibility for the project.
- Establish a plan for project development in rational times.
- Getting supplies: materials, equipment, updated scientific information.
- Using resources with efficiency and efficacy.
- Interaction with technology, internal and external clients.
- Think, face and solve limitations and troubles.
- Produce results in rational times.
- Evaluation of performance quality on project management to continuous improvement.
- Design innovation proposals.

Research for life long learning

What we know is important but reality changes constantly and is not predictable at all, due of that, the knowledge of today may be not enough tomorrow. Research refresh ideas and renew perspectives for **creation and invention** as a competitive keys for this century.

- Review specialized literature avoiding not formal information.
- Sail on Internet to identify specialized web pages in North America, Europe, Asia Pacific and other relevant regions; also download scientific articles, technical and research reports, data bases, etc. renewing theories, concepts, methods and tools.
- Explore possibilities of innovation on job practice.
- Share documents and experience of learning and innovation.

Ways of being person

- Intelligence: solid/new ideas, self motivation, creativity, positive vision, determination.
- Integrity: honesty, sincerity, reliability, rational self esteem.
- Interaction: respect by other persons, patience, learn from others ideas, careful of work team, careful of organization and organizational compromise.

It's clear we need the whole potential of human being today; not only ideas or ways of doing, but also values and ways of being excellent, and competencies emerge as the strongest vision of human resources development to this century.

We have review around the world the core models/approaches of development this wide potential demanded from employers, so in the field of competencies, we've consulted more

than 70 specialized references where we've found real problems on competencies conceptions and application (the most relevant references are presented in table 2).

Table 2. Diversity of competencies approaches around the world

US: SCANS REPORT (1992), The Blueprint for America's 2000 presenting the main reference of skills necessary to improve the employee internal potential and contribution to organizations full development.
EUROPE: Bunk, Leboterf, Echeverría, Mertens (1994-2002), had developed pioneer models of competencies in the world, showing basic conceptions of main competency and types of competencies into it.
EAST EUROPE AND ASIA: Russia, China, India (2001-2003), have made approaches from the analysis of competencies demands for the PYMES solid development.
SUBSAHARIAN AFRICA: Hann, 2002, demonstrates that PYMES has a key of success in development competencies for entrepreneurs on small business sector.
GOVERNMENT GUIDELINES: from England, Spain, Australia, México (CONOCER), Colombia, Chile, Brasil, Argentina, presents orientations of employee development based on competencies on the intent to harmonize the understanding of employers and educative organizations into those countries.
INTERNATIONAL INSTITUTIONS: UNESCO, which provides a general definition of competency and International Labour Organization achieved a 90 countries agreement to develop competencies on the way of new profile of understanding of employee and employ characteristics (Report from 91st Session, 2003)

The main problems found in all literature reviewed are:

1. Distortion of the original construct "competency", because of theoretical misunderstanding and excessive operational simplicity.
2. Dispersion of ideas going far from possible harmonization of processes of human resources development and share experiences (scientific exchange).
3. Existence of long inventories of work characteristics and indicators lists without clear link with construct competency, increasing conceptual and operative chaos.

From that background we then formulate a structural competencies model based on McClelland's (1973) original competency conception that are "the variables that could be used in predicting individual performance and that were not biased by race, gender, or socioeconomic factors" (cited by Cooper & Others, 1998:6) and, from that, advance over with new theoretical meaning to understand the potentiality of human competency into organizations. So then we have to leave behind other transitory concepts taken from other fields along last 30 years, such as: attitude, aptitude, skill, ability or capacity to define competency, because this term is not the sum of the others and that's the usual mistake on practice and literature: define competencies like it was everything about the human resource's previous characteristics, forgetting the original sense of competency. Consequently we need back to basics, and besides David McClelland, we also considered the Jacques Delors Report (1996), which introduces the 21$^{ST.}$ century education and knowledge categories: *know, know how, know human being and know to live together*. From both visions we contribute a definition of human competency as follows.

Human competency:

It means the whole of internal and diverse qualities that operates in an integral way as a base to demonstration successful performance into specific context. The components of human competency are: Scientific Competency, Practical Competency, Personal Competency and Social Competency.

Scientific Competency:

Conjunct of theoretical scientific and empirical (not contrasted) knowledge, that allows understand parts of reality, interprets its meaning and define possibilities of intervention. (Know)

Practical Competency:

Conjunct of structured methodological knowledge and empirical procedures, that allows actuation over defined parts of reality. (Know how)

Personal Competency:

Conjunct of qualities that allows have a clear consciousness of reality, situating the truth as major reference to regulate performance with positive values staff. (Know being)

Social Competency:

Conjunct of qualities that allows the right and productive relationship with social and natural environment based on positive social values. (Know to share)

We have applied this definition to define the Work Competency as the *Conjunct of internal qualities both professional and personal, so its demonstration allows a productive interaction with job environment and the integral development of professional contribution*. This main competency has a wide comprehensive-holistic conception of job performance, so it considers two components: professional competency (the individual's own potential) and workplace competency (organization specific requirements for job) both operates to achieve the full on-job performance. The figure 1 shows this integrate conception of the model.

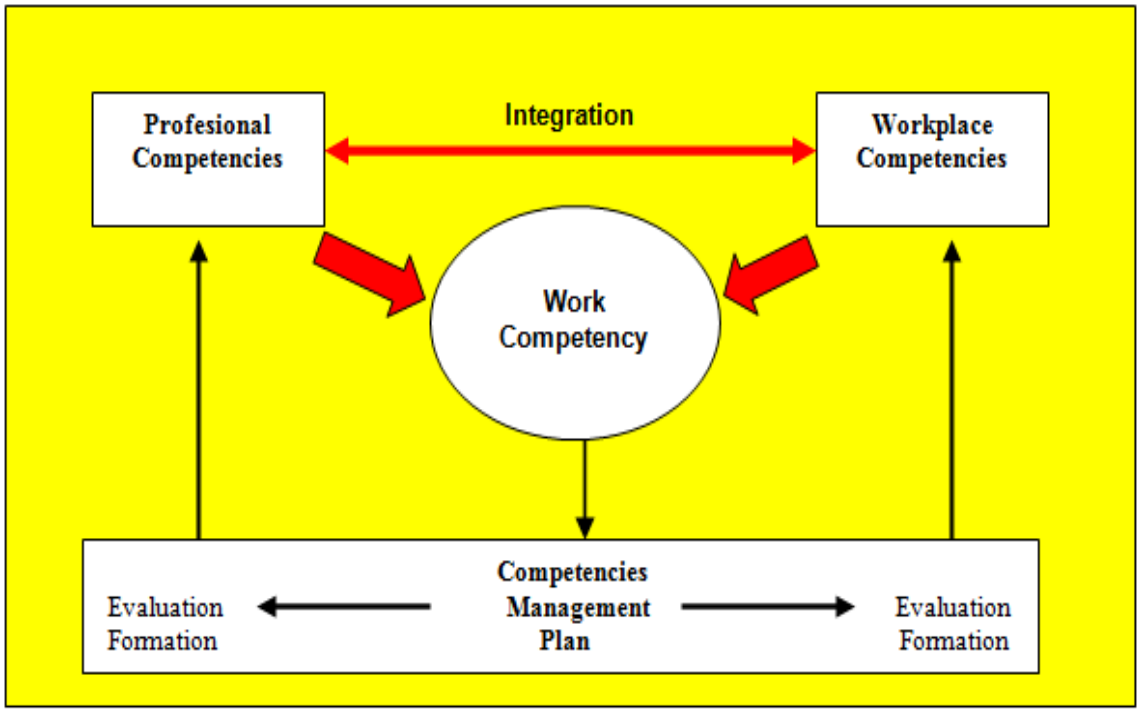

Figure 1: Comprehensive-holixtic vision of work competency

Main structure of the model:

Follows we present the map of the model with *professional competencies* and *workplace competencies* components.

Component 1: Professional Competencies Background

SCIENTIFIC COMPETENCY: Implies the demonstration of knowledge from disciplinary specialized education and cumulated experience throughout job performance, both backgrounds allows comprehension and updating of issues and problems of the area of work. Know.

PRACTICAL COMPETENCY: Represents the conjunct of practical and instrumental knowledge that allows develop the human potential into work reality, supported by rational action that makes possible a positive professional contribution. Know How.

PERSONAL COMPETENCY: It refers to subjective position of individual recognising that don't have the absolute truth about field of domain, so develops a permanent learning throughout professional career, regulating the performance with positive values for integrity as a human being. Know Being.

SOCIAL COMPETENCY: Are the qualities that allows establish very productive interpersonal relationship with partners and internal-external clients, with solid values as respect, deference for others and humble for learn from others ideas. Know to share.
These four competencies have dimensions and indicators expose ahead; now we points out the second component of the model referred to main competencies useful to analyze the performance on job–connected with employ requirements.

Component 2. Competencies for Workplace into Organization

Performance in front of workplace profile (employee adaptation): Considers the reference of competencies that defines the employ challenges and requirements; following this its necessary evaluate the performance to identify the possible distances towards the organization expectative.
Enrichment of the workplace profile (outstanding performance: excellence): Considers the reference of competencies that defines the employ challenges and requirements; following this its necessary evaluate highly any evidence of outstanding performance to improve it even better in a sustainable way.

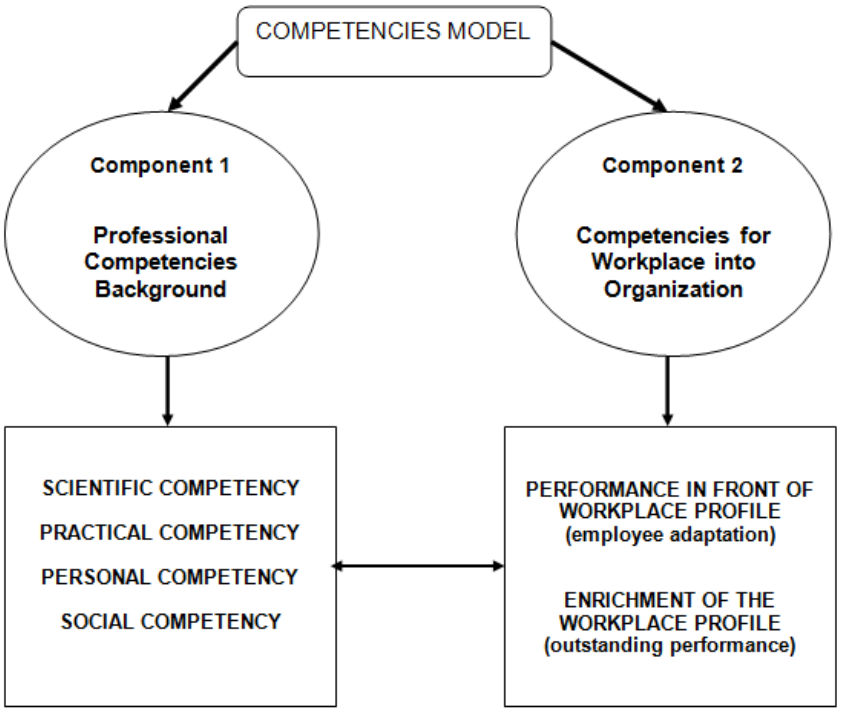

Figure 2 COMPETENCIES MODEL

Full description of the model:

Professional competencies and workplace competencies are exposed ahead with all dimensions and indicators.

Component 1. Professional Competencies Background

Scientific Competency:

Dimension 1. Specific Disciplinary Knowledge: the person shows knowledge of their own professional formation to understand, comprehend and develop activities on correspondent-specialized workplaces.

Main indicators: (the person)

- Expose clearly the basic profile produced by basic and specialized education.
- (So then) Explains the main areas of knowledge of his/her formation.
- Outlines relevant authors and approaches of correspondent disciplinary field.
- Describes and explains some parts of reality based on that knowledge.
- Identifies precisely main advances of knowledge about concrete realities.
- Represent theoretical and practical relations between basic and specialized education (if corresponds).
- Develops applied connections between education and work experience.

Dimension 2. Research as engine of innovation: Search relevant information related with professional practice as research towards real innovation and improving.

Main indicators: (the person)

- Knows basic principles and fundamental tools of scientific research.
- Knows application of documental search (hard copy and internet files) and documental analysis.
- Explains steps necessary to search and find scientific documents and solid WEB sites on Internet.
- Explains the importance of manage articles, research reports, yearbooks, brief reports, regulation guides, reliable data, sector and global indicators.
- Propose study techniques and documentation analysis that ensures learning and rational use of time.
- Applies evidently search and documental analysis.
- Prepare a data base with documents and materials cumulated.
- Structure’s notes and reflections from their documental analysis.
- Shows new learning and connect them with previous knowledge and present job performance.
- Motivate work teams to design brief research projects.
- Exchange ideas towards develops the projects.
- Establish responsibilities on the project development with a rational agenda.

- Design possible effective application of new learning on workplace.
- Suggests research issues integrated into organizational research main lines.
- Share all tools, techniques and experience with teams and job partners.

Dimension 3. Contribution to permanent innovation: Analyses his/her professional performance and prepares innovation purposes applied to improve processes and results.

Indicators: (the person)

- Considers work experience, recent learning and documental findings as reference for applied innovation.
- Identifies precisely the field or process where is key to make innovation.
- Explains with evidence the arguments to make innovation.
- Explains the base that strongly supports the real innovation.
- Indicates the steps that implies develop the innovation.
- Estimates the resources, costs and benefits derived from innovation.
- Promotes discussion of ideas, possibilities and programming of innovation.
- Develop a chronogram and suggests main decisions for innovation (this is in case that the innovation integrates people, equipment, technology, etc.)
- Goes on with innovation and systematizes the whole experience (lessons learned).
- Share the experience with work teams and job partners.

Practical Competency:

Dimension 1. Linking knowledge with reality: It means the relation and application of his/her disciplinary and empirical knowledge into workplace (theories, models, approaches, methods, techniques, all empirical ideas, etc.).

Indicators: (the person)

- Exposes clearly the job experience/performance based on basic and specialized education (reality interpretation with knowledge).
- Defines the potentiality and usefulness of their knowledge on workplace performance.
- Critically mentions the subjects learned that are not relevant for workplace.
- Situates methodologies, methods, techniques, tools, instruments (know-how knowledge), which are significant for his/her workplace performance.
- Explore the bases and confirms the domain of application of that knowledge.
- Comprehend precisely the contextualization made to apply knowledge to job.
- Clearly identifies aspects of workplace routine that enriches previous experience (learning feedback).
- Share reflections with job partners to improve team and organization excellence.

Dimension 2. Working based on projects: manage their activities based on projects that made possible systematization and precision to effective professional performance.

Indicators: (the person)

- Explores and applies the method of work projects to organize his/her agenda.
- Attend demands/requirements and propose work projects (this corresponds to challenges that implies at least 15 days of work or more).
- Consider actual rules and procedures of organizational regulation of job.
- Takes total responsibility for the project development.
- Make a rational planning for the project.
- Get supplies: materials, equipment, updated scientific information, etc.
- Use available resources with efficiency and efficacy.
- Interact with technology and internal-external customers to consolidate the project.
- Identifies, think, face and solve difficulties/conflicts effectively.

- Analyze the advances in reference to objectives, quality standards and real conditions.
- Produces and generates high quality processes and results in right times.
- Prepare a brief and solid report about the project.
- Makes evaluation of his/her quality on manage the project and makes immediate improvement for the future.

Dimension 3. Motivate/Support interactive research processes: launch agreements with partners to seek and exchange relevant documents for learning, team reflection and group improvement.

Indicators: (the person)

- Shows to job partners the value-importance of study specialized documents to work always better.
- Motivates his/her team to situate a key job issue and refresh ideas throughout research and study.
- Share out keys of documental search online and on hard materials.
- Agree a rational chronogram of documental search and share findings produced.
- Allocate techniques of documental analysis to use time adequately.
- Build mental maps, schemes, figures and others to show the main ideas studied.
- Ensure the precise comprehension of contents and its utility for job performance.
- Delineate possibilities of direct application as regular innovation.
- Formulate a synthesis of the experience and share it with peers and higher managers.
- Higher managers define tangible and not tangible incentives to motivate the excellent performance.

Personal Competency

Dimension 1. Lifelong learning: Shows an open mind to knowledge for professional growth, accepting the reconfiguration of previous schemes of thinking and find enhanced ways to work.

Indicators: (the person)

- Thinks and defines subjects to refreshing and updating (annual agenda).
- Establish and develops a strategic plan of data base deep-wide exploration.
- Study critically documents and materials found.
- Produce institutional reports -if it's necessary- to secure their learning.
- Participate on courses, seminars, workshops of interest.
- Suggest key courses for permanent actualization on job.
- Use evidently his/her new learning on workplace innovation.

Dimension 2. Self regulation of performance (Values): Applies criteria of value that guides rightly the daily effort: responsibility, compromise with job and organization, chronograms accomplishment, integrate processes and results, respect and confidentiality with information, determination and full compromise with truth.

Indicators: (the person)

- Shows responsibility on job: regular presence, punctuality, consideration with use of organizational resources.
- Agreement accomplishment being the employ one of work priorities.
- Respect for organization, making it an important part of personal and professional development.
- Ends the work tasks on time or even in less time than expected.
- Understand their own responsibility for work processes and results, instead of avoid them against colleagues and organization.
- Protects organizational information because it considers as confidential property.

- Their work performance is based on strong truth and transparency.

Social Competency:

Dimension 1. Comprehension of other persons: Revels receptivity/empathy towards partners, recognizing in them a real potential and experience as an input useful for own reflection and development.

Indicators: (the person)

- Ask for opinions, criteria and proposals to those who work with.
- Integrate positively on his/her work the contributions of other people.
- Search advisement of senior colleagues and partners with more experience.
- Modifies and adapt their ideas towards team successful and development.
- Modifies and adapt their speech and interventions accordingly to different audiences (contextualization of knowledge for sharing).
- Leads motivation to achieve the team excellence.

Dimension 2. Promoting of social learning: It revel the looking for opportunities for dialogue and group reflection, to achieve new knowledge and create innovative ideas to get better on professional contribution.

It maybe noted that some of indicators on dimension research as engine of innovation -exposed above- give orientations about social learning, so here we give some complementary indicators.

Indicators: (the person)

- Inside job, share relevant information, documentation and data.
- Promotes the group planning, coordination, solidarity and permanent interaction towards success.

- Motivate his/her team to make debates that are useful for quality of job performance-development.
- Ask deep/hard questions producing rational way of thinking and lucidity.
- Suggests the team set up challenges of excellence for permanent advance.
- Remains the importance of team self evaluation for improvement.
- Cooperates in documentation of work experience to have a memory of team's evolution.

Component 2. Competencies for Workplace into Organization

1. Performance in front of workplace profile (employee adaptation)

Main Indicators:

- The organization has the competencies workplace profiles (definition of organizational requirement) supported for a scientific model. Like we present on this paper for example, so the profile must consider the general competency of the job with types of competencies: scientific, practical, personal and social.
- The managers ensure that competencies model and workplace competencies profile are useful-coherent for organization.
- The employee comprehends precisely their workplace profile (employ requirements).
- He/She analyze carefully their professional potential in comparison with the challenges of workplace.
- The organization analyzes the relation between professional potential and workplace profile, defining ways to reduce the possible distances.
- The initial formation-induction takes place and the performance is evaluated.
- A monitor is designed to support and coach the employee.

- The person accomplish the main lines of workplace expectations-requirements, sustaining so the value of workplace for organization.
- It takes place the accomplishment of secondary aspects of workplace profile (full performance reaching).
- Employee considers his/her evolution towards the profile is required, and makes adjustments exchanging opinions with the monitor.
- Possible incoherencies between workplace profile–and job performance are communicated by the employee (job permanent analysis).
- Adjustments or retouches (if corresponds) are made on profile to improve the organizational functionality.
- Employee and monitor generate conclusions about quality of on-job performance.
- Employee improves their performance and revel evidence of adaptation to workplace profile (i.e. reports, achievements, documents studied for learning, proactive analysis, work diaries, etc.).
- Employee confirms his/her comprehension and adaptation to workplace profile and compromise to organization.
- Monitor notes how the employee applies their professional competencies to workplace profile (linking knowledge to reality).
- Monitor defines the merit of employee, the value added to organization and recommends the keys to permanent improve of performance.

2. Enrichment of the workplace profile (outstanding performance: excellence)

Main Indicators: (the person)

- Main reference: workplace profile clearly defined based on a model.
- Employee takes in count their performance evidence related with workplace.
- Visibly identifies relations and differences between performance and workplace profile.

- Employee confirms the outstanding performance in one or more requirements of the profile.
- Review and validate these findings with monitor and job partners.
- Isolate the strong-positive factors to comprehend their nature and role inside higher performance.
- Describe correctly the way to achieve outstanding performance over the workplace profile.
- Share with monitor his/her advances and explanations about the higher performance achievement.
- Outlines the keys of their professional competencies that allow go over the workplace profile.
- Employee and monitor contribute to partners this information to improve the team excellence.
- Monitor and managers make adjustments to workplace profile to guide the organizational continues development.
- Employee set the new challenges and continues the growing up performance.
- Managers offer the incentives-retribution to higher performance achieved.
- Managers and human resources unit considers the experience and offers new scenarios to continue formation for the whole personnel.

The model as it may be noted, has a scientific operative structure that provides reliability to application on terrain and avoid confusions or mistakes in selection of new personnel or promotion of staff. So the organizations to apply this model, has to review each dimension and indicators to adapt them to their own necessities and characteristics, this model allows the adaptation to reality with enough flexibility; even it is possible increase the number of indicators if its necessary, always considering the dimension's theoretical definition. The model also guides step by step the human resources management and improvement, because the deep analysis of indicators illustrates the possible issues and ways of permanent formation planning in the short and long term view, this of course, with the full participation and compromise of whole organization's members.

Conclusions:

We have a clear pathway to manage competencies with a model with theoretical bases linked with main original definition and with coherent and integrated dimensions and indicators. From this resource, organizations need real determination to learn and growth with the human potential as the centre of all efforts to go as far as it can, but without pass over the human dignity and life quality that is sustaining the real meaning of study, continuous formation and employment.

The managers of Human Resources need -unavoidable- full managing competencies first, to understand and develop the competencies potential of the whole staff. The organizations also needs this times new perspective of long term projection, and more than ever before, needs humble, lucidity, sense of reality as core values to know how to work, where to get and how far to arrive with responsibility and quality for the institution and community.

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