Competency Management Articulation for Human Resources

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Abstract. In recent years the approach to competences has gained great popularity due to process and organizational reengineering need. Taking opportunity on some recent work in this area dealing challenges that human resources face to develop planning training, I intend to identify several guidelines to develop a future architecture in a practical implementation. At this article is presented the concept development of competency management.

Keywords: Competencies, Intellectual Capital Management, Knowledge Management, Human Resources, eLearning

1 Introduction

For some time we live in change, driven mainly by new technologies and globalisation. Indeed, competition is increasing, and customers are increasingly educated and with more power, it encourages organizations having to adapt to almost frenetic changes without losing its effectiveness and positioning [1]. It is obvious that the old way of working is inadequate, now the key to organizational success and excellence focuses on people and their management. Companies realized that, in addition to the technologies and processes are the employee's competences and knowledge, being more prepared, they can provide added value to the organization.

It is essential knowing how to manage knowledge and human capital, coaching and emotional intelligence in organisations. Staff is needed, regardless their level, to engage objectives. It is necessary that everything can be controlled by the organization, even when the person is no longer present. It became necessary to measure the contribution (intellectual capital [7]), besides the capital structure, to assess the organization of a real way, accounting on its potential and know-how. Thus, trend goes through more effective measurement systems usage, mainly implementations that make easy exchanging knowledge and produce new approach of understanding business and professionals [2, 3]. This technological society needs to humanize.

The competencies emerged to make possible manage company employees abstract skills, knowledge and capabilities [4]. These will meet employees performance because goes beyond mere knowledge. The traditional training and human resources are guided by the following framed principles: professional dignity, equal

opportunities in apposite training access for real training needs. Competences delivers an instrument to control holistic expectations.

There are two different perspectives on approaches to competences: (1) competency management resource-oriented and (2) eLearning-oriented competencies.

Training aims: (1) to promote permanent learning; (2) improve performance; (3) enhance work – "training / action"; (4) creating new employees' competencies dealing with organization mission; (5) predispose all professionals to processes of change strengthening the organizational culture and develop the ability to "learning to learn".

Training is encompassed with the principle of: (1) universality because covers all workers, whatever their role or category; (2) functional in order to meet service needs; (3) decentralised for seeking place diversity; (4) multidisciplinary since support all necessary branches of knowledge to services, taking into account the evolution of knowledge and technological means; (5) complementarily for the reason that it is a natural result of the process education.

There are gaps in human resources and enterprises on computer usage and internal information systems management. Although worldwide invested effort on organizational knowledge management, the fact that this is an inherently people dependent activity makes complex from the beginning reach a satisfactory level of success. This complexity allied to the fact that this is a very wide scope area has hampered standards emergence, each author or group of research, has its own definition, methodology, different annotations and so on.

In this article is explained the training needs gathering importance through diagnose techniques with association between company and worker motivations.

I evaluate practical implementation approaches including technological analysis. The assessment added value is state-of-the-art confirmation and presents a method to handle encountered shortcomings for further research. From here are withdrawn conclusions on the future projects and research to help develop levels of employability, assessment and training, to achieve better conditions for competitiveness.

2 Problem Analysis

An enterprise-level successful informatics engineering solution introduction needs something more than just technology, because needs to think how business process fits on organizational pre-requisites.

Organizations need for an activity that explicitly deals with a knowledge component concerned in business activities has led to knowledge management emergence field. This activity seeks to identify, treat and provide relevant knowledge to the organization business, both by content management, and existing intellectual capital management [7].

To create more effective, quality and relevant training have to follow a systematic methodology integrated by a first phase of organization training needs identification and diagnosis of the needs, followed by training development and implementation, and finally performed training evaluation.

Needs diagnosis will enable information obtained from various kinds including: (1) organizational strategic objectives, in short and medium term; (2) employee's performance actual levels; (3) training priority; (4) organizational problems and dysfunctions that can be solved with training. This phase since process beginning enhances all workers participation, whatever their role, function or category hierarchy.

Not disregarding techniques used to make diagnosis such as questionnaires or interview surveys, observation or group dynamics should be used a competency acquiring plan implemented with all workers participation.

Organization business and each department are knowledge and individual personal performance dependent so organizational knowledge management should be based on decision-making reducing time and costs, and increasing product/ service quality.

It is not easy performing training needs diagnosis because company competitiveness requires greater flexibility and jobs rotation. To achieve training success is necessary defining what are objectives being achieved and priorities. The need diagnosis requires much preparation. One way to define training needs is to achieve a simple open questionnaire and/ or informal interviews distributed to chiefs and subordinates. It is essential conducting diagnosis before training developing because desired objective not achieving risks.

The technique of self evaluation bases on activities identification related tasks that are developed in the organization, every competency held and training needed to fill gaps in knowledge or acquiring new skills. It is used a single sheet filled by each worker, after is delivered to their leaders to supplement with the work knowledge professionals do. A copy is sent to training service [8]. Beyond obvious utility for individual training needs diagnosis this instrument allows the leader assume more careful training participant selection and ensures greater access opportunity equality.

From identified needs and priorities established to meet strategic decisions terms and available resources, the training plan is prepared and will incorporate a set of measures to initial and continuing training, defined in specific objectives terms to be achieved and covered workers containing all elements relating to the training activities planning.

For training results evaluation, crucial phase of this integrated process, should be made self evaluation, to perform on job by trainees, three to six months after training, complemented by leaders opinion about the their work behaviour. This information feedback enable identifying gaps in learning or other issues that can be resolved immediately through follow-up sessions or cause further training.

3 Proposed Approach

I want to find how connect strategic processes with operational human resources.

Model framework development is the first phase that allows an organization embrace the universe of principles and technologies level usage associated with the knowledge management.

The data gathering in a real environment will provide a case study for the model validation and is at the same time part of the action research diagnostic phase at the same organization.

I have contacted a company which has already been briefed on the knowledge management principles and methodology.

The model [Fig. 1] can serve as a reference to be implemented in enterprises for sustained feed of the catalog creating and updating process, performance profile and work requirements, training and learning, distributed by the different parties, for this will be necessary, exploit and respond to change.
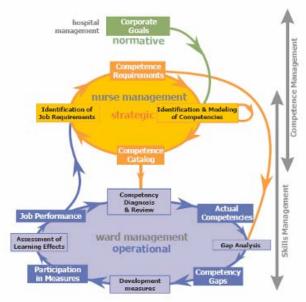

Fig. 1. Competences Management Levels (cp. [6])

The data gathering will be made either through documents provided by the company, either through interviews. These interviews serve also to remaining elements drawing of diagnosis, particularly on the relevance of possible needs for knowledge obtaining and sharing.

The interviews collecting data methodology is not yet fully defined. The first stage will probably be the concept map construction including the activities each individual is involved and their responses to a set of few questions regarding the use and knowledge needs. Two more phases are planned, a method of collection validation and another data collected confirmation, in order to take advantage of the team members evolving sensitivity development [5] to the issues of knowledge management.

The model instantiating the organization will plan future procedures of this action research together. The purpose is to assess knowledge and make training assumptions to prevent gaps and enhance employability.

Human resources competences development through tools allow companies, organizations and employees know their diagnoses and then conducting training

operations to fill up gaps found [Fig. 2]. All parties in the process have to be prepared to different perspectives, operating at different levels of abstraction, different responsibilities and tasks. Technologically, the system must be prepared to e.g. follow organizational competencies side, the same way that takes into account the objectives of individual learning.

Introduction of competency management requires a mentality change in order to handle that will be made interactive workshops.
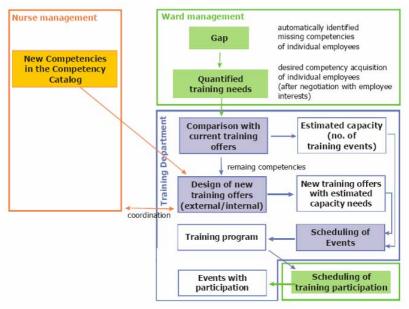

Fig. 2. Competency-based training needs planning (cp. [6])

4 Implementation Proposal

4.1 Competency Catalog Modelling

The catalogue of competences has to be completely modelled from scratch. The first step will be conducting semi-structured interviews. With this information, to interactively develop the catalogue, are conducted workshops series. The objective is to collect general and specific skills and the most of each department competencies which is difficult.

4.2 Action Research

An action research consists of a cycle that begins with a diagnosis and that follows the stages of action planning, action, evaluation and knowledge acquired description.

Importing the method principles, is set for a first cycle with goals from short term to gain confidence from the organization, with the results and from a second cycle of action research based on the findings of the previous cycle.

4.3 Technical Training Council

It is the creation of a council technical training, consisting of representatives of various professional groups, which will have advisory functions, in support of diagnosis, design and evaluation of the integrated process of training.

4.4 Requirements, Existing Competencies and Training Needs Analysis

The training is not done in a vacuum much less an organization. It involves costs and is naturally expected gains of any nature. When it found a gap, the need to have response training, was triggered by a training needs diagnosis process in order to set up action that should solve. Training should lead to an adjustment of professional performance set out by the organization expected objectives [7].

At this context training needs are normally associated with cases of jobs discrepancy detected between the desired performance and performance verified. The individual profiles can be between 5 and 30 skills.

4.5 Competences self-diagnosis

When professionals are familiarized to think on qualifications and diplomas, it is difficult to think of competences.

By accessing self-diagnoses employees and businesses have the opportunity to test their competences on an autonomous basis with immediate availability of its associated benchmarking and indication of their output profile, the gaps in respect to the different types of technical competences and behavioral, and so on…

There are two self-diagnoses, one for business and one for the employees. In the first case, company evaluates its position in dimensions as processes, people, technology, knowledge management and strategy. Furthermore people can assess their cognitive skills, technological and generic literacy, specific technology skills, social skills, motivation and knowledge [8].

Self-diagnosis will be done by employees who operate in areas as different as services, trade, industry, tourism, agriculture and transport and achieve tasks of management, technical, administrative and operational.

4.6 Analysis process stages

The most appropriate way on thinking about training needs analysis is embedding it in the context of a strategy for quality improvement in an organization or community. It aims not only detect occasional problems, but provide relevant information to act in a strategic way. This process of collection, selection, processing and interpretation of data includes three levels of analysis that coincide with its three basic phases.

4.6.1 Professional Field Analysis
In this phase may take place three types of analyses leading to the training needs identification.

Organizational level analysis
Seek first to examine training relevance, which follows the analysis of when and where training can and should be applied. It involves among other things, available resources analysis, organization specific conditions, technical system, work relationships, and so on.

Functional level analysis
Seeking to determine the most cost effective way of implementing a function or group of functions, the conditions and necessary equipment, as well as the knowledge and competences required. Nowadays has been given increasing importance to the competences and other than technical knowledge that is crucial to give an effective performance of diverse professional functions. In the past they tended to be in second pane or even omitted due to a technical perspective as well as that analysis was performed.

Personal level analysis
Assess professional performance as well as the actions and conditions necessary to achieve on-job required level.

4.6.2 Training Field Analysis
It deals with "translate" training content, routes and methods resulting of the analysis above.

4.6.3 Pedagogical Field Analysis
At this stage when combined with the previous seeks to define the specific conditions of pedagogical activities to develop pedagogical theories, evaluation tools, pedagogical techniques, time distribution and space, material resources and logistics, and so on.

4.7 Techniques

The methods and techniques selection of needs analysis is not merely a mechanical process. It depends on considered real situation type, but also the past experience. In the professional field for the information collection, e. g., use of techniques such as: interviews, brainstorming, surveys and questionnaires, direct observation. In the information collected analysis, resort to techniques such as content analysis, functions analysis, capabilities, competencies and others.

4.8 Training Methods

The analysis can be done with the aim of bridging the need for one of the following methods of training.

4.8.1 Initial Training
Training is qualification need of workers to a given occupation performance, as a result of the new jobs creation, replacement of employment, organisational change or other similar situations.

4.8.2 Continuous or Improvement Training
Training is based on found deficiencies in the activity performance, taking into account the level of results and attitudes expected. The situations that may cause these needs are diverse, such as: productivity under expected results; technological or organizational changes that involve adjustments in the production system and the qualifications of workers.

4.8.3 Conversion Training
Today, this type of training is widespread and comes from the extinction of certain occupations, such as the introduction of new technologies that changes so deep the contents of an occupation; the extinction of certain economic activities which show little profitable in the face of international competition, and so on. These and many other situations cause the continuous vocational retraining of workers to completely different activities.

4.9 Training evaluation

This assessment is seeking various types of results: the differences between the objectives and achievements, the effects of training in jobs; the factors which have influenced no so good results, such as: inadequate means and methods; deficiencies attributable to trainers and to logistical conditions in which the action took place, inappropriate selection of the trainees, and so on. It is important to accept that training evaluation is not only to the detection of differences between the objectives and expected results, but it is above all a reflection process on the training device itself.

4.10 Competencies Evaluation

There is no necessary correspondence between the knowledge acquisition and mobilize or apply capacity in the context of work.

The depression of school certificates in many areas, by an effect of massification, which has resulted in demand by employers, workers with more competencies than school credentials.

The workers mobility also meant the revitalization of professional competencies, demonstrated in terms of curriculum pathways, a factor which has been highlighting the employment acquired competencies, especially in countries where the majority of the population has reached a high level of education. The problem is even more complex. It is not simply to competences assess, but to know how this assessment should also translate in terms of promotion and ranking in the workplace.

5. Technology

In the context of a service oriented architectures is permitted: (1) combine employees requirement and competencies, (2) add requirements, experience, performance and quality management, (3) be present objectives that influence key competences, (4) compare the requirements to perform certain work, to find the gaps of competence, (5) select training measures which take into account the competence gaps, (6) evaluate during/ after attending the training action the learning effects, (7) increase the employee competencies profile when appropriate [4]; enabling better business processes integration and operation with IT services.

The competence models and hierarchies can be contextually integrated with LMS/ TMS, and these applications with the knowledge management [9].

6. Conclusions and Future Work

This paper presented an approach to the competences management through an analysis of some of the work related to this issue.

The formulation presented for the problem, despite being vague serves as a basis for future investigations, it is intended that various entities and workers can test, before, during and after, their competence/ skills through a simulator, and referred to standard courses eLearning to be made. After development and implementation of on-line tool, this will be available on the Internet.

The work plan includes three months for the consolidation of state-of-the-art, three months to complete the first cycle of action research, twelve months for planning and intervention of actions that decide to adopt, and finally, six months of writing for the completion of the final document.

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