ORGANIZATIONAL MEMORY: AN APPROACH FROM KNOWLEDGE MANAGEMENT AND QUALITY MANAGEMENT OF ORGANIZATIONAL LEARNING PERSPECTIVES

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Abstract

The recognition of the fact that, as of late, knowledge represents one of the most important assets of an organization, decisively influencing its competitiveness, has led to some comprehensive approaches of organizational memory. The organizational memory and the organizational learning capacity are the main sources for a competitive edge, so the main challenge is to effectively manage knowledge while maintaining the quality of formation services.

The scientific investigation of literature (Crosby, 1979; Deming, 1982; Juran, 1990; Barcet and Bonamy, 1994; Barnabé, 1997; Bouchard and Plante, 2002; Demeuse and Strauven, 2006) specific to the area of management of services related to organizational learning, reveals the orientation of research, based on: (a) conformity between delivered services and the demanded characteristics or specifications; (b) meeting client's needs; (c) studying the existing adequacy between result and what had been announced, foreseen or promised; (d) improving overall functioning of the organization by defining and implementing of a quality project, one that will involve the whole necessary staff for satisfying the needs of the learners.

This paper will present: (1) contributions to a coherent point of view regarding the organizational memory from the perspective of the principles of quality management of services associated to organizational learning and based upon Knowledge Management; (2) the analysis of the main quality models that may be employed in organizational learning related services; (3) a study regarding the perception of successful organizational factors in the field of Knowledge Management-based training services amongst Romanian companies and institutions.

Keywords: organizational learning services quality management, organizational learning success model, cognitive acquis, organizational memory, knowledge management methods

JEL Classification: C81, C88, M1

Introduction

The VET component (Vocational Education and Training) of the Lisbon Strategy, adopted by the European Council in 2000 sets, as desiderata, the transformation of the European Union, until 2010, into the most competitive and dynamic knowledge-based economy. 2010 Education and Training Program transcribe as guidance to Member States, the implementation of learning strategies developed through the entire life, focusing on the need to improve quality and efficiency of training systems. Developing Common Quality Assurance Framework - CQAF allowed for the creation of a common referential support, designed to support quality management of training / education services, respecting at the same time, national strategies to ensure their quality. In addition to the model provided by the CQAF a series of standards on quality management were imposed: ISO 9001:2000, ISO 9004:2001, ISO 10015:2000, ISO 19011:2003, ISO 17024:2004, ISO/IEC 19796-1:2005, LCD model, Excellence Model - EFQM . In this regard, the research conducted in this paper tries to give answers to the following questions: (1) What is the importance of organizational memory in the process of organizational learning and what does specifically justify the implementation of a quality control system within the training services based on knowledge management?; (2) What are the current approaches in literature concerning organizational learning services quality management?; (3) What would be the successful factors in relationship with the implementation of a quality management system of knowledge management based organizational learning services, as seen by Romanian companies managers and employees?

In trying to answer these questions, the methodology employed uses a mixed approach, based on activities specific both to exploratory and descriptive research, respectively: (a) systematic on-line consultation of bibliographic databases and progressive consultation of works rich in bibliographical references; (b) systematic consultation of collections of journals on the subject; (c) the elaboration of a questionnaire based on 2 distinctive sets of questions: a 12 questions set with suggested answers and a 3 questions set made in accordance with the 5 point Lickert scale, applied to a 131 Romanian companies, financial and education institutions sample.

1. The Management of KMS-Based Training Services Quality

1.1 The importance of Knowledge Management initiatives in organizational learning services

By decisively influencing organizational learning through the capitalization and valuing of the organization's cognitive acquis, the organizational memory is permanently subjected to transformation and evolution, being recreated, reconfigured and enriched with new knowledge, gathered through organizational learning processes. Most oftenly defined as an "explicit, immaterial and persistent representation of knowledge and information within the organization" (Dieng et al., 2000), that allows for "the keeping of reasoning, behaviours and knowledge, even contradictory and in all their diversity" (Murray&Myers, 1997), the organizational memory charts the cognitive architecture of an organization, allowing the identification, collection, conversion, capitalization and valuing of knowledge, information, rules and group values within an organization (Vrîncianu, 2008).

The organizational memory can be materialized both on non-computerized media (books, papers, documentations, films, organizational culture rules) and computerized, represented by organizational memory information systems, based on Knowledge Management techniques and instruments that may be employed in organizational learning processes. The organizations' interest in the capitalization of knowledge, in using organizational memory systems and the training services provided by them can be justified by: the loss of expertise caused by personnel mobility (retirement, transfer, looking for a different job, etc.), tasks and responsibilities sharing for certain jobs, the increasing specialization of some professions and the need for team work (Durstewitz, 1994; Conklin, 1996), the importance of conservation of past lessons, in order to avoid repeating some errors, the improvement of informational fluxes management and organizational communication, dissemination of most efficient best practices (Vrîncianu, 2008). The arguments behind the use of Knowledge Management based training services are illustrated in practice by numerous examples. According to Beazley et al. (2002), the cost of typical productivity of an employee leaving an organization is about 85% of his salary, due to replacement errors and lost abilities and knowledge. The Swiss pharmaceutical company Hoffman-Roche estimated savings amounting to more than $ 1 million per day as a result of Knowledge Management activities. Chevron Corporation reported savings amounting initially to 150 million dollars, with an addition of at least 20 million dollars a year, resulting from implementing a best practices program (Davenport & Prusak, 1998;Myers, 2001). Similarly, the efforts on the part of Dow Chemicals to capitalize on their knowledge led to savings of over 40 million dollars. According to data released by Swanborg & Myers (1997), Schlumberg Corp. achieved, six years after an initial investment of $72 millions, a return on investment of approximately 668% on their Knowledge Management programs (Swanborg & Myers, 1997). Some authors were assessing that, in 2005, almost 40% of all Fortune 500 companies had implemented some form of knowledge management systems (Chong & Choi, 2005) in order to support organizational learning.

Taking into account that initiatives related to the introduction of a Knowledge Management System have, on average, an 85% failure rate, mostly from improper approach or implementation, and that only some 20% of these systems (Shand, 1999) implement some form of quantification of the impact on overall organizational performance, the necessity of implementing some sort of quality management system for these services becomes self evident.

1.2 Service quality management approaches in organizational learning

According to Pawlowski (2003), quality in the field of ICT-based organizational learning is not associated with a well-defined measure. It is variable with respect to scope, perspective, dimension. Despite this problem, quality assessment in this domain is becoming an interesting issue, as showed by the interest of ISO/IEC19796-1:2005 and European Quality Observatory (EQO). EQO provides a conceptual framework for the description and harmonization of quality approaches and suggests the European quality standard as reference framnework.

The literature provides several approaches to quality management of the organizational learning, the most notable intervention being represented, in our opinion, by the model proposed by Bouchard and Plants (2002), that there are nine cross-cutting dimensions of any organization or training activities: relevance (compliance with objectives- need for

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training), consistency (compliance between the human and material resources used and objectives concerned), synergy (the link between the actions carried out according to achieved objectives and results actually achieved), the à-propos (the conformity link between training programs and restrictions), effectiveness (compliance between economic resources cutting and the degree of achieving the concerned objectives), sustainability (the compliance link between objectives and maintaining in time of the performance), impact (compliance between the unexpected results of training activity and expectations of the various interacting environments) and flexibility of training (providing training perenniality, without involving deep reforms in the methodology). Other authors (Demeuse & Baye, 2005; Demeuse, Crahay and Monseur ,2001, 2005, Gérard, 2001; Sall & De Ketele, 1997) propose different criteria, such as equity or contingent dimension of a particular values system. Qualifications of quality are also proposed, such as "prescribed quality" (based on quality standards, rules and procedures to be followed), „built-in quality "(indicate the level of the specific knowledge of a context that contribute to the quality construction), notions very close to the concepts of "desired service" (service that the organization wants to offer), "expected service" (service desired by users) or "performed service" (which assesses satisfaction degree of users).

Several authors (Paillette and Champagne, 1997; Nizet and Huysbrechts, 1998; Bouvier, 2001, Argyris and Schon, 2002) have similar views regarding the objective of training quality management: improving the functioning of organizations using internal resources, the exchange of skills and by empowering the implicated actors. Other studies try to develop their own criteria, which can be used only at national, regional or local level (Wirth, 2005). A dedicated model for training services based on information technologies is the model developed by Holsaple and Lee-Post (2006) for e-learning, which define the learning success based on IT&C through a three-step evaluation: system design, system delivery and system results. According to this model, the purpose of first step is to provide the success of system design through the maximization of three dimensions of quality: system quality, information quality and service quality. The objective of the second is represented by the achievement of the success in system delivery through the maximization of user satisfaction and system usage and the objective of the third step is represented by the assurance of the success of the system results through the maximization of the net benefits (figure 1). Every success dimension is numerically quantified through the aggregation of obtained ratings for the set of specified factors. In that way, the success can be evaluated for every dimension; a low score for a success dimension represents a deficiency in that area and the necessity for orienting the efforts in the direction of solving this problem.

Another point of view is represented by the model proposed by Klein et al. (2006) which considers that the results of learning service are directed influenced by the learning motivation. A different perspective is offered by Lim et al. (2007) who identify five dimensions which influence the efficiency of online training: motivation and efficiency of the trained person, the content of the training program, the level of communication between trainer and trained person, the organizational environment and the easiness in usage of electronic resources.

The review of literature reveals that the success of implementing a system of quality management of services related to organizational learning involves the following fundamental principles: (1) the client orientation (understanding and satisfaction of user

necessities); (2) the continuous improvement of organization activities (qualities like work philosophy); (3) defined and coherent processes (learning organizational processes must be defined and their success must be guaranteed); (4) the guaranteed quality of learning processes (the quality of training services will reflect always the control applied to previous processes of organizational learning); (5) prevention instead of supervision or correction (the costs of prevention are lower than the costs of supervision or correction).
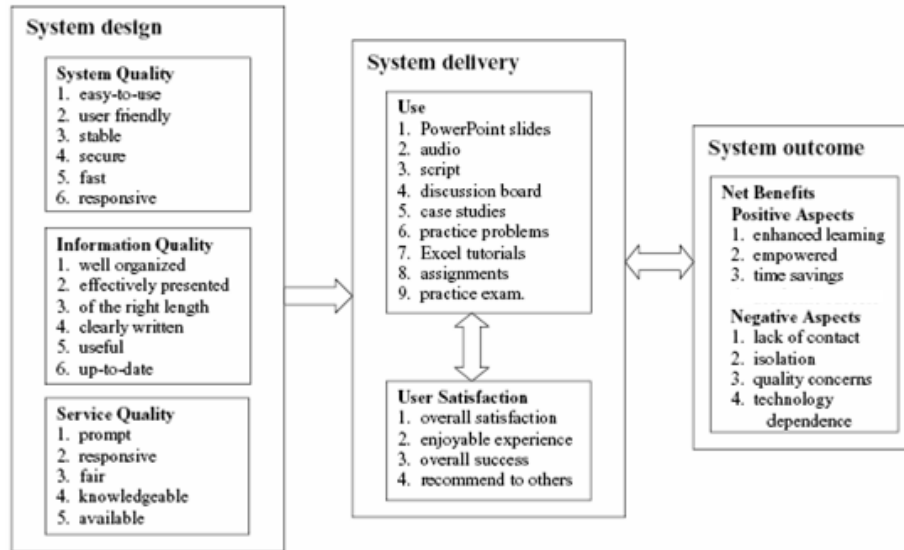
Figure 1 –Success model in e-learning
Source: Holsapple & Lee-Post (2006)

2. The analysis key success factors in services quality management of organizational learning based on Knowledge Management systems

The research used a survey on 129 Romanian organizations (98 small and medium enterprises, 16 large enterprises, 5 banks, 5 multinational companies, 3 universities, 3 military organizations, one administrative institution) for the understanding the key organizational factors in assurance of organizational learning success and those based on systems of knowledge management. The questionnaire had two sets of questions: a set of 12 questions which provide choices of answer and 3 questions with items measured on Likert scale with 5 points (1 - total disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – total agree). The total number of distributed questionnaires was 450 and 131 were with usable answers.

The analysis of answers provided revealed the following aspects:

• A special attention for training services exists in banks or multinational companies. All these organizations have an information system for knowledge management (SAP knowledge portals, e-learning platforms, collaborative tools for sharing knowledge, interactive tutorials, other ERPs). For many types of organizations, in the past 5 years, the expenses with training were constant, decreased or eliminated, but in banks these expenses

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are on ascending trends. At the banks' level we can observe the most complex structure of training services: (1) strategic training courses, organized and realized by a special training department; (2) trainings developed and realized by professionals from business and management area and managed by training department; (3) training courses based on e-learning platforms; (4) strategic individual training.

In the category of strategic training courses there are included: "relationships modeling", courses for developing basic capacities in sales, courses for developing relationships with customers, courses for communications, time management courses, leadership courses, advanced techniques for negotiation courses, team-motivation courses, modeling inter-human relationships and knowledge sharing. In trainings developed and realized by professionals from business and management area are included: financial analyses, operational risk and other presentations and seminars, specific to every department. In training courses based on e-learning platforms there are monthly modules, in which the participants are studying materials specific for their job, prepared by specialists from that division. An effective evaluation of on-line training service quality is realized through monthly tests in which every participant is examined by the division, based on studied documentation. The average numbers of days dedicated for training to every employee is greater than 10 days. Similar values were also for organizations which activate in areas like: technical consulting, IT&C, military. On the other hand, the organizations from sales and textile industry have dedicated for training only one day per employee per year.

• In case of units of national defense, the study revealed that the expenditure allocated to training remained constant around an average of 5.33% of expenditure budget. From the analysis of responses provided in the questionnaire resulted that the training is ideal when a KM system is used, however, training is still performed in classical mode, based on traditional courses with a evaluation system based on written examination on completion of courses.

• Regarding the software used for organizational learning, clear preference is for a portal solution - for large companies, banking institutions, public institutions and institutions of higher education. Multinational firms in the sample prefer planning resources systems of SAP type and medium size firms expressed their preference for Web solutions, based on interactive tutorials and case studies.

• For software companies analyzed, the average expenditure per training was 8%, the questionnaires showing that the indicators used in quality management for this domain: certification for training on a particular technology, the result of the on-line examinations for internal training, evolution between assessments on technical criteria used, centralized feedback to those who participate in training-based questionnaire.

• In the small trade and services firms that have been in the sample are lacking entirely any initiative related to an approach to knowledge management and even employees training in the classical sense. Training is limited to mandatory courses provided by law (e.g., training of hygiene in food trade) and qualifications courses, the desire of managers being to allocate a small percentage to such expenses. Clearly, in the sample studied for this type of business, there is no desire to implement a quality management system related to training / education.

• In the administrative institutions, is notable, during the past 5 years, the increase by 1% of the budget for training (by professional training, in particular), but there are no indicators for checking the quality of education / training or any informational instrument of capitalization and sharing of knowledge.

Regarding the organizational success factors for quality management of organizational learning services, scores obtained from the assessment made on the basis of Lickert scale revealed that the main factors are: training of employees, the need to introduce a system of reward and allocation of resources for knowledge management .

**Factors of organizational success in quality management
of organizational learning services**

Table no. 1

Location	Succes Factor	Average
1.	Training of employees	4.34
2.	A reward system based on participation and support shown by employees towards quality management and quality organizational learning	4.3
3.	Allocation of resources for knowledge management – increase of relevance, accuracy and value added for enterprise	4.2
3.	An efficient methodology for distribution (possibly automatic) knowledge by employees	4.2
4.	Develop and promote information exchange and collaboration between employees	4.15
5.	Identifying core competencies and business knowledge to support these areas of basic skills	3.9
6.	The ability to remove outdated, incorrect or unnecessary information and knowledge	3.20
7.	Favorable climate of open, free, constructive thinking	3.12
8.	The existence of promoters of knowledge management within the organization, who have registered very good results (performance show)	2.80

Conclusions

Research revealed a possibility that many organizations have not implemented a quality management system, but to benefit the management systems of knowledge. Although the concepts of Knowledge Management and quality management are essentially different, there are some common areas in their approaches: the goals, the areas of activity involving a particular position on organization dealing in terms of general management and the financial benefits issue resulting from implementing a quality management system and a system of knowledge management.

The analysis revealed the following: (1) the organizational learning services based on Knowledge Management systems are in the sample studied, a characteristic of large firms that have a culture of capitalization on knowledge through a collaborative and oriented to knowledge environment; (2) organizations intensively based on knowledge implement

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quality management systems of organizational learning services; (3) key organizational factors of success in implementing a quality management system of organizational learning services are: training of employees, a system of reward based on participation and support shown by employees towards management and quality organizational learning, resource allocation for knowledge management, an effective methodology for the distribution of knowledge to employees, development of cooperation between employees, identification of core business competencies and knowledge needed to support these areas of expertise.

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