

# Integrated Information Management: Foundation for Knowledge Management

Ilie Costas

**Abstract:** In this article we propose a framework for utilization of quality management (QM) principles in information management (IM) processes with the aim of improving conditions for knowledge management (KM) development. QM is presented as an efficient link between IM and KM and the main condition of the alignment of IM and KM to the enterprise's business objectives.

**Keywords:** information management, knowledge management, quality management, integrated information system.

## 1. Introduction

The access of the managers and specialists to multidimensional information and knowledge about all the aspects of enterprise's activities and its environment is one of the most essential conditions, ensuring competitiveness in the global increasingly competitive economy.

The experience accumulated in the field of informatization until present leads to a conclusion, that information technologies (IT) are necessary, but not sufficient to guarantee the success of the main organization's activity. The problem is how to organize and use the information and IT to meet organizational goals.

During the latest period of time, researches and practitioners promote the ideas of so called *information management*, *information resource management*, *knowledge management*, each of which being presented as critical condition for organization's success. Although they appeared and were developed as different directions of research and practice, at present some interrelations among them are discussed in the literature [1, 2].

The article represents an attempt to focus researchers on design in the whole, utilizing effective systemic approach. A special attention has been paid to the integrated IM as an important part of the general management IM is discussed as a foundation for KM. The utilization of the QM in IM activities is analyzed as an effective bridge between IM and KM.

## 2. Information management as a necessary condition of an effective decision making process

---

An efficient level of informatization can be reached only as a result of a well organized information activity [3,4], oriented to the systemic goal of the organization. The most comprehensive concept, used to represent this information activity, is information management.

In this article we'll use a broad and useful definition of IM, provided by Bent in 1999 [5]: *"Information Management is the enterprise-wide planning, budgeting, organizing, staffing, directing, training and controlling of information. IM includes the management of various information resources: carriers of information such as documents or electronic media; departments that provide information services; and both computer-based or traditional information systems."*

This definition presents IM as a multidimensional activity, which includes practically all the types of information activity, and comprehends the whole register of the known interpretations of IM, including the following extremes: a) IM in the technological sense, when the focus in the notion of IM is on the IT and information systems (IS); b) IM in the traditional sense, when IM is interpreted from the point of view of management functions: *planning, budgeting, organizing, staffing, etc.*

IM is a component part of the processes management that takes place in the organization and must create optimal conditions contributing to the achievement of the final goal of the organization. From this point of view, an integrated information space, which adequately reflects all the processes that take place in the real system, can ensure such conditions.

### **3. Knowledge Management**

Another important condition of organization's competitiveness is considered KM. It is recognized that knowledge involves some level of human input, and it is information as absorbed and comprehended by an individual. "Knowledge exists at an order of complexity above information, its container the document, and the special document, the record"[5].

KM is defined as "the professional administration of the sum or range of what has been perceived, discovered, or learned in the enterprise by collecting, integrating, organizing, analyzing, and sharing business knowledge so that it can be drawn on and used effectively by the enterprise to take effective action to achieve its goals" [1]. Once **KM** is based on the premise that knowledge can be generated by combining the

information circulating in an organization along with its experience, we can conclude:

1) to generate more knowledge is necessary to ensure an integrated information space of the organization, representing all processes adequately. So, an integrated IM is a necessary condition for KM;

2) to ensure that most part of information will be turned into knowledge, is necessary to have a tool, based on periodical evaluation of usefulness and relevance of stored information and knowledge accordingly to the organization's experience. QM in information activities (QM IA) is the most efficient tool, able to realize the mentioned above functions.

#### **4. Quality management in information activities**

The QM in information technologies and services is a relatively new field of research and practice linked with IM activities. A holistic view of quality in the IS function from the perspective of an IS manager is described in [6], where **Total IS quality** is presented as a multidimensional concept, *which includes the six top-level dimensions of IS quality: Infrastructure Quality, Software Quality, Data Quality, Information Quality, Administrative Quality, Service Quality*. These dimensions permit to represent the **Total IS quality** management as an example of convergence of different types of IM that is based on the combination of aspects, characteristic for both extremes of IM interpretation: managerial and technological.

#### **5. Interrelations among IM, KM and QM IA**

Although IM, KM, QM are developed as different directions, there is an increasing amount of research, focused on some interrelationships among them. For example, there exists a strong relationship between IT and total quality management (TQM). The importance of IT in TQM has been explored not only theoretically but empirically as well [7]. So, IM is an essential factor supporting the implementation of such an information-intensive system as TQM. On the other hand, QM in the field of IM could be a mechanism permanently improving the quality of data, soft and information. Achieving a permanent feedback in the framework of IM, QM ensures the relevance of accumulated data and information and creates conditions for increasing the amount of knowledge extracted from

information. The QM IA links the IM with the general management and, in addition, with KM. Thus, taking into consideration the above mentioned about the directions of IM development, including QM as a part of IM, we can conclude that all these types of management should be developed in a coordinated way, based on a system approach.

## 6. Conclusion

There exist **mutual** relationships among different types of management: IM, KM and QM in the framework of the organization's general management. Once each of them contributes to the improvement of other types of management, it seems that significant benefits can be achieved from the integration of IM, KM and TQM, increasing their synergetic effect. QM of information services, based on a permanent feedback reflecting the user's satisfaction about the quality, can be an efficient subsystem of the IM, transforming IM in a good foundation for KM.

## References

- [1] John, van den Hoven, *Information Resource Management: Foundation for Knowledge Management*. Information Systems Management, 2001, v. 18, p.80
- [2] I. Costas. *Integrated Information Management: Foundation for Knowledge Management*. The 30<sup>th</sup> Annual Congress of the American Romanian Academy of Arts and Sciences, Proceedings. July 5-10, 2005, ASEM, Chisinau, 2005.
- [3] Brent Gallupe; Felix B. Tan. *A Research Manifesto for Global Information Management*. Journal of Global Information Management, 1999, v.7.
- [4] I. Costas. *Interdependenta dintre diferite forme de management: cel informational, al cunoasterii si al calitatii*. Conferința Științifică Internațională "Competitivitatea și inovarea în economia cunoașterii", Chisinau, 2010.
- [5] Sue Myburgh. *The Convergence of Information Technology & Information Management*. Information Management Journal, April 2000, v34, i2, p.4.
- [6] Antonis C. Stylianou; Ram L. Kumar. *An Integrative Framework For IS Quality Management*. Communications of the ACM, Sept 2000, v43, i9, p.99.
- [7] Chooi-Leng Ang, Mark Davies and Paul N. Finlay. *An empirical study of the use of information technology to support total quality management*. Total Quality Management, March 2001 v12 i2 p145.

Ilie Costas

Academy of Economic Studies, E-mail: costas.ilie@yahoo.com