EFFORTS OF IMPLEMENTING TQM IN THE CENTRAL LIBRARY OF THE NATIONAL TECHNICAL UNIVERSITY OF ATHENS

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1. INTRODUCTION

In recent years the academic libraries stood against the fast improvement of technology, with low budget and with more requirements for responsibility. Because of these, new strategies of renewal have been developed at a quick pace.

A first step which is necessary for a library, is to define which approach in the procedure of change is more appropriate for itself, considering the size, the environments and the conditions of function that apply in this library.

The method of TQM represents a new age in the management of an organization. Its elements such as participating management, the personnel training and the responsible service of customers, are views that libraries already driven by. As a result of this, the libraries are up to improve these principles, which already have been valued positively by them and put them partially in practice.

Many libraries have embarked on plans for implementing quality-related philosophies such as TQM. It is well known that TQM is a management method, that libraries can benefit from it in several ways.

2. ACADEMIC LIBRARIES IN GREECE

Regarding the Greek libraries and specially the academic ones, a lot of changes in their organizational structure have been noticed the last five years. The changes that take place are obvious in every level.

The development of libraries, in combination with the new technological and economic facts effect important pressures in the model of administrative organization that they implement until now.

Several Greek Academic Institutions, face the challenge to establish a functional and financially efficient organizational model of their library which will be capable to answer in the commands of times.

European Union is the main financier for all trials about reorganization and upgrade of Greek libraries, and especially Academic Libraries from 1995 until today.

Due to this financing, has accomplished very important improvements in organizational form, without following the specific structure of TQM, but implementing a lot of its principles.

The main purpose of libraries activities, is the continual focusing on users servicing, and the satisfaction of their demands.

3. THE EXAMPLE OF THE NTUA CENTRAL LIBRARY

The organization and function of the Central Library of the national technical University of Athens (NTUA) started in 1914, when the University is dated from 1836.

Its purpose is to serve the educational and researching activities of the foundation and the scientific assistance to the Greek mechanic community.

As an Academic Library, it serves the teaching staff, the students of NTUA and other Universities technical scientists and students.

The library's collection includes Monographs, Pamphlets, newspapers, CD-ROM, Microfiches, etc.

In the Institute, are registered and disposed 215,000 volumes of books and 100,000 volumes of serials. The last two years a lot of efforts have been made for the concentration of material from the various departments of the Institute to the building of the Central Library.
The last 6 years and especially since 1994, there are attempts for the quality improvement in the area of information and in the area of serving user's needs. A consultant employed by the library may be concerned as the first step in this attempt. The definition of the library functions has started, and in cooperation with other libraries consultants, have been created new conditions for the best facing of the needs in the area of information.

To employ people who have scientific qualifications, and simultaneously, establishment-of informational and technological conditions, helped the library to deal with its needs. As a consequence, the informational process that is given by the staff is specific as well as reliable.

The last three months, the Central Library is located in a new building of 7,000 square metres. This building includes, among all, 4 reading rooms with 500 seats, and five private rooms, which are useful for team, work. There are also available 50 P/C for general use, and 4 copiers, as well as one microfiche reader.

One of the most important efforts for the quality improvement has been the automation of the library catalog through the software named ALEPH, which run from the summer of 1994.

The cataloguing of material is based on Agglo-American Cataloguing Rules (AACR2), and the classification is produced according the Dewey Decimal Classification system (DDC). Various activities, such as putting a barcode, conducting an interview for a new student assistant, etc., are a step in a larger process of quality.

One of the principles of TQM, is the "cease dependence on mass inspection", principle that rules and the library of NTUA. It has became an important effort of minimization of control on persons, and it has been given by the library more emphasize in the services.

**Library Services**

- Union catalog
- Bibliographical Database in CD-ROM
- Electronic Access to Scientific Periodicals
- Multiple Bibliography
- Access to Internet
- Interloan
- Multimedia

**4. LIBRARY SERVICES**

**Union catalog**

The users have the opportunity to access the Union Catalog through the network at the internet address: [http://www.lib.ntua.gr](http://www.lib.ntua.gr). In this address, they can find information about other services.

If a user know title, author or subject, has the opportunity through library's online catalog to search the collection and find what kind of material exists in the central collection, or if the material exists in another department of the NTUA.

**Bibliographical database in CD-ROM**

A bibliographic research system has located in CD-ROMs. All the members of the NTUA have access in these databases through their own PC, through software (Ultranet), and using network of NTUA. Further information about the establishment and function of this system, there are in the website of the Central Library.

Most important of these databases are: Science Citation Index with Abstracts, Chemical Abstract, Compendex, etc.
Electronic access to Scientific Periodicals

As a member of the Greek academic Libraries Consortium, the Central Library gives the opportunity of electronic access through network from any PC, which is located in the NTUA. These information can be seen as a full text article, which is published in nearly 3,500 scientific periodical of the above publishing companies, such as Elsevier, Academic Press, Springer, Kluwer and MCB.

In the same way the users have the opportunity to electronic access in the database with First Search from OCLC and Omni Megafie from H.W.Wilson Publishers.

Users can be informed from the central library's page, about changes or additions, as far as electronic periodicals and databases are concerned.

Multiple bibliography

Another significant supply that Central Library can contribute to educational procedure of NTUA, is the introduction of Multiple Bibliography for any topic. More specific, the library is provided with 2 to 5 copies of each topic.

This bibliography is recommended from the Professors of NTUA and they accepted from the General Meeting of their departments.

Access to Internet

The user of the Central Library, has the opportunity to use free network Internet for 1 hour a day per person.

Interloan

Central Library also supplies free services as far it concerns the periodical articles and how they can be borrowed to the members of NTUA community. Firstly, these services are supplied through the agreement of All Greek Academic and searching libraries, and secondary, through British Library. In the first case, there is interloan through network (ERMIS) of National Central of Documentation. In the second case, Central Library can be provided with some articles that they don’t exist in Greek libraries.

Multimedia

In the building of Central Library have started operating 3 multimedia rooms, under the technical responsibility of network of NTUA. The capacity of these rooms, are of 100, 30 and 16 people equally.

One of these is linked through the network Internet with similar rooms of University of Athens and Athens University of Economics and Business (A.U.E.B.)

These rooms are also available for seminars, lectures, teaching, etc.

5. ADMINISTRATIVE STRUCTURE OF LIBRARY

5.1 Library Administration

The library composes a self-existent and decentralized department of the University, and administratively belongs to the direct supervision of the Vice-rector of Academic Issues.

The library management is exercised by the directress. The management work is helped by the Assistant Directress. The directress may attend the meetings of all the senatorial committees, of which the work is connected with the making up the library policies.

The Assistant Directress supports the management work of the Directress. She also cares for the purchases and supplies competitions.

5.2 Senatorial Library Committee

The Library Committee has introductory role to the Senate of NTUA, which is determined from the following:
• Aims at the modernization, the improvement and the quality upgrading of the library function, through a medium-term and a long-range planning
• Has constant supervision of the library needs, regarding the demands of the educational and inquiring function of the University.
• Participates in all allocations to the lowest bidder
• Approves the library budget and submits proposals to the Senate
• Composes the annual review of the Library Committee
• Establishes permanent information flow to the Campus Community, in relation to the library activities

The suggestions of the Library Committee are submitted to the Senate through the Vice-rector of Academic Issues. The Library Committee is consist of:

The Vice-rector of Academic Issues as President
One deputy from each Department
Three members from the Professors which are determined by the Senate
The directress of the library
Delegates from the employees associations of the Institute and from the students
The responsible of each department of the library

5.3 Information Centers of Departments

As we have already mentioned, there is an effort of gathering the material to the building of the Central Library. The libraries of the various Departments, from now on, will be consist of small collections of reference material. The Information Centers of Departments are controlled and helped in their function and organization by the Library.

5.4 Historical Library

Historical library is consisting of records and historical material of the Library of the University.

5.5 Library Staff

The Library, staffs her services with permanent and extra personnel which composed of the following categories:
1. Specialized librarians
2. Graduates of University with relevant knowledges to the library needs
3. Information scientists
4. Auxiliary staff, graduates of High-School

Concluding, the library work is supported by staff of seasonal occupation like undergraduate and postgraduate students of NTUA.

The modern tendency in the libraries, is the theory of the "development of human potentialities" with main target the satisfaction of the personal needs of employees and their continuous education, with purpose their adjustment to the new technological developments.

The aim and the targets of the library are realized with the support of the high professional training of its staff on issues concerning the function and the library organization.

The attendance of seminars such as:
The Patras Spring Course on the Digital Library, which was held in Patras, 10-15 May 1998
The training in the Software ITS for Windows (bibliographic database)
The European Union Information on the Internet which was held in November 1998
The training of the software ALEPH (edition 500), which was attended in Fall 1999

These seminars contribute to the achievement of the above target.
6. ORGANIZATIONAL STRUCTURE OF LIBRARY

The library organizational structure includes the following three Departments:

Collection's Department of Financial Management

The main target of this department is the collection development, the management, the distribution, the control and the processing of the library financials and her connection with the educational and the inquiring activity in the Institute.

This department is also responsible for the acquisition of material, the application of international standards for it's processing, the creation and development of union catalog of books and serials of the Institute (electronic and printed), the organization of electronic documentation services of serials and other bibliographic sources. It also makes the administration politics of the collection, the census and the withdrawal of material. This department is consist of three offices and covers one more activity:

a. The Acquisitions Office, which, after an analysis of the information needs of the Campus Community, introduces the purchases politics for the collection development. It also cares for the execution of the orders.

b. The accession of Processing Materials office is responsible for the delivery of material, it's control and processing according the international standards, and its accession in the electronic catalog of the library. This office takes care of the publication of special manuals for the catalog use. It also cooperates with other libraries for the exchange of information.

c. The Serials office makes sure, in collaboration with the Accession of Processing Materials office, for the timely accession of the new issues of serials to the collection, for the development and appearance of the collection to the electronic catalog of the Library, and also for the ensuring to inform the users in time for the new purchases.

d. The Electronic Documentation office has as main scope to collects analyze and cover the information needs of the University Campus Community.

Department for User Services

This Department has as main responsibility the service of users to the electronic media and the most complete and effective disposal of material. It also cares about the policy making for corporation between libraries at home and abroad, for the interloan issues and the ensuring to inform the users with training and information material for the use of the Library.

This Department consist of 2 offices and covers one more activity:

a. The Reference office has as main work to ensure the information support of users. It is also responsible for the continuous training of users and to produce the best possible terms of approaching the knowledge areas of the collection and the information sources.

b. The Circulation and Interloan office is working for the best distribution of material, keeping up the loan and interloan rules. It also cares for the best service of users through the ensuring of other collections for loan through the electronic acquisition of material.

c. The Collection and Audiovisual Material is an activity that has as main purpose the organization of the collection of audiovisual material and it's disposal to the users.

Department of Technical Support

This Department is caring for the electronic support of all the library functions and services with the full development and application of the computer system for the library catalog, the network for the bibliographic databases (CD-ROM) and with the adaptation of the international standardization and practice in issues that refer to the development of the cybernated library systems. In addition, studies and realizes new applications in the digital technology.

In conclusion, it cares for the implementation of international standards for the classification and access in the material and also for its maintenance. It consist of two (2) offices:
a. The Software and Network office has to develop in the best way the library computer system from the user, the even accession of the retrospective cataloguing to the library union catalog, the material exchange with other libraries. It also contributes with proposals to the policy making for the collection of CD-ROMs and databases and looks after for the better access in these from the University Community. At last, it has the responsibility for the creation, development and maintenance of the library website for the full development of the network services.

b. The Materials Maintenance office organises the appearance of material (labels, signalling, binding etc.) and its classification. It is caring for its maintenance with every offered modern way.

7. EVALUATION AND INSPECTION

In the definition framework of users expectations and needs, is composed a questionnaire from the Central Library which refer to the library users.

Estimating the results of this questionnaire have became some conversions. Regarding the reading rooms, more rooms of individual study have been created. Besides the number of the PCs for the users has been increased and the collection has been enriched. One of the most direct target of the Library is the increasing of the working hours until 10.00 a.m.

8. CONCLUSION

Conclusively we underline that there is not perfect example of implementation of improvement processing of quality, such as there is no perfect model of re-organization. The properly approach that will be adopted, it will be in connection with the internal philosophy, culture and the external environment of the library in which it will be implemented.