

## THE IMPLEMENTATION OF QUALITY MANAGEMENT IN SCIENCE AND TECHNOLOGY

BY

**Zahid Mahmood**

The quality of a company's product directly affects its competitive position, profitability and creditability in the market. Thus, the major objective of management becomes that of achieving and maintaining the leadership in product quality and reliability. As part of the total commitment to equality by management, a quality policy must be developed that would describe the method to be used in meeting the long term objective. Product quality requirement should be defined for each product based on the factors relating to satisfying the needs and expectation of those to whom the products serve and, to the fullest extent possible, be specified in terms enabling objective determination of conformance [1].

Quality management is a way to continuously improve performance at every level of operation, in every functional area of an organization, using all available human and capital resources. It comprises a group of ideas and techniques for enhancing competitive performance by improving the quality of products and processes. Quality management does not relate solely to the improvement of product quality in a manufacturing situation, nor to the improvement of a particular service, offered by a business organization, but rather it is a viable concept that can be applied to all types of organization including science and technology.

Today, science and technology play a major role in business performance, most organizations pay inadequate attention to technological planning and management. They emphasize on marketing and financial issues. A large number of organizations implementing quality management have found that the concept is not well-received in technological functions, including research and development [2]. Organizations can make the research and development process more efficient by applying the concept of quality management to their R&D activities. Individuals and teams can use a variety of quality management tools to measure and manage the upstream phase of R&D

9. Lundeen, Gerald and Carol Tenopir. "Microcomputer-based library catalog software". *Microcomputers for Information Management*, 1(3), Sep. 1984. p. 215-228.
10. Ref.5, p.167-168.
11. *Mini-micro CDS/ISIS reference manual* (version 2.3). Paris: UNESCO, 1989.
12. *MINISIS version H: over view document*. Ottawa: International Development Research Center, 1991.
13. *MINISIS Integrated Library System: overview*. Ottawa: International Development Research Center, n.d.
14. *Kitabdar Version 1.56: user's manual*. Lahore: Silicon Systems, 1989.
15. *Pak Library Software*. Lahore: Pak Book Corporation, 1992.
16. Shah Farrukh, Naeem Ahmad and Misbah ur Rehman. *LAMP, Library automation & management program: users' manual*. Islamabad: Netherlands Library Development Project, n.d. (Unpublished).
17. Hamid Rehman. "Problems and prospects of introducing library automation in curriculum". In *Challenges in automating the library services*. Peshawar: Department of Library & Information Science, University of Peshawar, 1993. p.58-70.
18. *Netherlands Library Development Project Pakistan: Semi annual progress report no. 6, period January- June 1994*. Islamabad: International Consultancies SOCRATES, 10th July 1994.
19. *PLA Computer Training Centre: Handbook*. Lahore: The Center, n.d.

## REFERENCES

1. Anwar, Mumtaz A. "Use of information technology in the libraries of Pakistan". In *Challenges in automating the library services*. Peshawar: Department of Library & Information Science, University of Peshawar, 1993. p. 3-14.
2. Sajjad-ur-Rehman. "Library automation in Pakistan: myths and realities". In *Challenges in automating the library services*. Peshawar: Department of Library & Information Science, University of Peshawar, 1993. p. 15-26.
3. Abdus Sattar and Sajjad-ur-Rehman. "Assessment of Pakistan Library Information Management System (PLIMS)". *Pakistan Library Bulletin*, 23(2-3), June- Sep. 1992. p. 1-10.
4. Bushra A. Riaz. "Library automation problems in Pakistan". In *Challenges in automating the library services*. Peshawar: Department of Library & Information Science, University of Peshawar, 1993. p. 27-34.
5. *Online Inc.'s top 500 library microcomputer software application programs*. Wilton, CT: Eight Bit Books, 1993. p. 162-163.
6. Moore, Caroline. "Microcomputer software for library and information work". In *Encyclopedia of Library and Information Science*. v. 48. p. 283-302.
7. Ref. 5, p. 166-167.
8. Attaullah. "Library automation experiences of the N.W.F.P. Agricultural University, Peshawar". In *Hallmarks of library and information services in Pakistan*. Lahore: Punjab University Library Science Alumni Association, 1993. p. 207-225.

Librarians at Multan have also conducted a course with the sponsorship of NLDP. 15 librarians were trained in DOS and Wordperfect.

## **PLA Computer Training Centers**

With the help of NLDP, Pakistan Library Association has established five permanent computer training centers at Islamabad, Lahore, Karachi, Peshawar and Quetta. The case for Hyderabad and Bahawalpur is under consideration. The first PLA center started its functioning in November 1992 at Lahore. By the end of June 1994, PLA centers in the country have trained 500 Librarians and other people in library automation.<sup>18</sup> The courses include Fundamentals of computers, Disk Operating System (DOS), Wordprocessing using MS Word and Wordperfect, Spreadsheet using Lotus and Quatro Pro, Database management using dBase, Library automation using CDS/ISIS and LAMP.<sup>19</sup> A special one month course was also designed with the help of USIS at all the centers. The course was conducted by Dr. Nelson, a Library Automation Expert from USA. At Lahore center, to make the students well-versed with a working automated environment, visits to the automated libraries in the city have also been made an integral part of the courses.

## **Conclusion**

In conclusion it might be stated that library automation is at its infancy in Pakistan. No serious efforts have been made in the field of library software in a proper manner. With only an experience of 6 or 7 years in library automation, a very few persons have been trained well in library computerization. There is a lack of resource persons in the country. It is the duty of our professional associations and library schools to solve the problems of library software and its appropriate training in the country. PLA computer centers must play their important role in selection and developing a suitable library software for our local needs. MARC format for Pakistan should be developed. All this can never be done without the help of government. Government should aid the libraries and supervise the struggles for library automation.