CHAPTER – III

UNIVERSITY LIBRARIES IN THE AGE OF INFORMATION TECHNOLOGY
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Section – A : University Education in India – a Brief History

3A1 Introduction:

Education plays a key role for the development of any society. Universities are the most important institutions of society set-up for the preservation, creation and dissemination of knowledge. They are also the custodians of intellectual and ethical traditions and values in society. Universities serve teaching, educational and research needs of higher education in the country. They primarily serve postgraduate students, research scholars and teaching community. The standard of study, teaching, education and research of a university largely depend upon the quality of the service rendered by the university library.

The basic aim of university education is to cater to the needs of higher education and those who want to spread their knowledge in the interest of nation and society. A university mainly stands for higher learning and research.

Dictionary of Education defines university as “an institution of higher education which has a liberal arts college; offers a programme of graduate study; has usually two or more professional or faculties; and is empowered to confer degrees in various fields of study”.¹

Jawaharlal Nehru remarked about university in the year 1947, “as it stands for humanism, for tolerance, for research; for the
adventure of ideas and for the search of truth. It stands for the onward
march of the human race towards ever higher objectives”.2

3A2 Establishment of Modern Universities in India:

The British rulers initiated modern universities in India. Indian
Universities owe their origin to the Wood’s Despatch of 1854 3. Because of its importance, it has been rightly described as the
‘magnacarta’ of English education in India. As an outcome of this
report, three universities were established in Calcutta, Bombay and
Madras in 1857 on the model of London University. For the next
quarter of a century, no new universities were established. Later the
Punjab University was started in Lahore (now in Pakistan) in 1882 and
the University of Allahabad in 1887.

3A3 Indian Universities Act (1904):

Indian Universities Commission (IUC) was set-up in 1902 to
enquire into the affairs of newly established universities and
recommend suitable measures to improve the quality of higher
education in India. Based on the recommendation of this Commission,
the Indian Universities Act was passed in 1904 with a specific
statutory provision for the universities and colleges to undertake more
teaching and research activities and to maintain well-equipped
libraries.

The formulation of Education Policy in India in 1913 caused
the establishment of many new universities at different places in India.
They include the Banaras Hindu University in 1916, the University of
Patna in 1917, the Osmania University in 1918, and the Aligarh Muslim University in 1920 and so on. There were 20 universities in India prior to Independence in 1947. The period of 90 years from 1857 to 1947 was the period of slow rate of development of universities in India. S R Ranganathan (1963) stated that the objective of Indian universities during pre-independence period was not for the advancement of learning and research but to conduct examinations and award degrees as a hallmark of fitness for recruitment to the civil service of the country.

Development of Universities in India

Education being a key factor for the growth and development of a country, Government of India appointed various commissions and committees to make recommendations for the reorganization and improvement of the standard of higher education system and make it relevant to the changing needs of the nation after independence. The recommendations of some of the prominent commissions and committees are given below:

**3A4 University Education Commission (1948-49):**

The Government of India set up University Education Commission under the Chairmanship of S R Radhakrishnan to report on university education and suggest improvements and extensions that may be desirable to suit the present and future requirements of the country. The Commission reported, “Democracy depends for its very life on a high standard of general, vocational and professional
education. Dissemination of learning, incessant search for new knowledge, unceasing effort to plumb the meaning of life, provision for professional education to satisfy the occupational needs of our society are the vital tasks of higher education". The commission strongly recommended for the establishment of the University Grants Commission (UGC) in India on the basis of an identical body in Great Britain.

3A5 University Grants Commission (1956):

The University Grants Commission is a statutory organization established by an Act of Parliament in 1956 in India. The UGC, being a national, autonomous and advisory body, is empowered by the Act to take all the necessary measures for the promotion and coordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities. The UGC formulates and directs the policies and programmes of higher education in India. In addition to its role of giving grants to universities and colleges, it also advises the Central and the State Governments on the measures necessary for the improvement of university education.

3A6 Education Commission (1964-66):

In 1964, the Government of India set up another education commission under the chairmanship of D S Kothari to advise the Government on the national pattern of education and on the general principles and the policies for the development of education at all
stages and in all aspects. Education Commission\textsuperscript{6} set out the following
functions for the universities in the modern world.

- To seek and cultivate new knowledge, to engage vigorously
  and fearlessly in the pursuit of truth, and to interpret old
  knowledge and beliefs in the light of new needs and
  discoveries;
- To provide the right kind of leadership in all walks of life by
  helping individuals to develop their potential;
- To provide society with competent men and women trained in
  all professions who are inclined with a sense of social purpose;
- To strive to promote equality and social justice and to reduce
  social and cultural differences through diffusion and education;
- To foster in the teachers and students, and through them in the
  society generally, the attitudes, and values needed for
  developing good life in individuals and society; and
- To bring universities closer to the community through
  extension of knowledge and its application for problem
  solving.

\textbf{3A7 National Policy on Education (1986):}

The National Policy on Education (NPE) characterizes the
higher education as a crucial factor for survival providing the Indian
people with an opportunity to reflect on the critical, social, economic,
cultural, moral and spiritual issues facing the humanity. It contributes
to national development through dissemination of specialized
knowledge and skills. The NPE advocated a nation-wide movement for improvement of existing libraries and the establishment of new ones as well as provision of library facilities in all educational institutions.

Indian universities constitute one of the largest higher education systems in the world. Prior to Independence, the growth of universities was very slow and diversification in areas of studies was very limited. After Independence, the number of universities increased significantly from 20 in 1947 to 294 in 2003.

According to The Universities Handbook 2003 (29th Edition), there are 294 universities and their equivalent institutions in India including 52 deemed universities. Of these, 162 are traditional universities (including institutions for specialized studies) and the other are professional/technical institutions. Out of 162 universities, 40 provide education in agriculture (including forestry, dairy, fisheries and veterinary science), 18 in medicine, 33 in engineering and technology, 3 Information technology and 10 are open universities. Specialized institutions include seven Sanskrit universities, five women's universities, one in population sciences, seven in regional languages, six in law and one each in music and fine arts, statistics, english and foreign languages and journalism. In addition, there are 13,150 colleges affiliated to these universities. These universities and colleges together have 4.27 lakh teachers and 88.21 lakh students studying under-graduate, post-graduate, and research degrees in the
entire country. The growth of universities in India is presented in the following table.

Growth of Universities in India

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Universities</th>
<th>Year</th>
<th>No. of Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1857</td>
<td>3</td>
<td>Up to 1950</td>
<td>26</td>
</tr>
<tr>
<td>1900</td>
<td>5</td>
<td>1960</td>
<td>47</td>
</tr>
<tr>
<td>1910</td>
<td>7</td>
<td>1970</td>
<td>90</td>
</tr>
<tr>
<td>1920</td>
<td>12</td>
<td>1980</td>
<td>122</td>
</tr>
<tr>
<td>1930</td>
<td>15</td>
<td>1990</td>
<td>191</td>
</tr>
<tr>
<td>1940</td>
<td>16</td>
<td>2000</td>
<td>248</td>
</tr>
<tr>
<td>1947</td>
<td>20</td>
<td>2003</td>
<td>294</td>
</tr>
</tbody>
</table>

3A8 Development of Universities in Andhra Pradesh:

Andhra Pradesh is one of the largely populated states in the country. It was formed on 1st November 1956. It has 23 districts classified into three regions, Costal Andhra, Rayalaseema and Telangana. In area it ranks 5th and covers about one fifth of total geographical area of the country. The state is bounded by Madhya Pradesh and Orissa in the North, Tamil Nadu in the South, Bay of Bengal in the East, Maharashtra in the North-west and Karnataka in the South-west. It is the fifth largest state in the country. By and large, Costal Plains, Eastern Ghats, Deccan Plateau and Western Plains cover it.

The development of universities in Andhra Pradesh can be divided into two phases

1. Pre-Independence period
2. Post-Independence period

During the pre-Independence period only two universities were established namely the Osmania University, Hyderabad (1918) and the Andhra University, Visakhapatnam (1926). Sri Venkateswara University was established at Tirupati in 1954. Nearly after three decades, 20 Universities came to be established in the state, including central and deemed universities.

There are, as on date, 14 State Universities 7 Deemed Universities and 2 Central Universities meeting the needs of higher education in the state by offering wide-ranging subjects in arts, commerce, humanities, sciences, technical, medical, agricultural and veterinary sciences etc. The location, distribution and jurisdiction of universities in AP are given below (Andhra Pradesh State Council of Higher Education).

Table showing the Universities in the State of Andhra Pradesh

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the University</th>
<th>Location</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Osmania University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>2</td>
<td>Andhra University</td>
<td>Visakhapatnam</td>
<td>Visakhapatnam</td>
</tr>
<tr>
<td>3</td>
<td>Sri Venkateswara University</td>
<td>Tirupathi</td>
<td>Chittoor</td>
</tr>
<tr>
<td>4</td>
<td>Acharya N.G. Ranga Agricultural University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>5</td>
<td>Jawaharlal Nehru Technological University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>6</td>
<td>University of Hyderabad</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>7</td>
<td>Nagarjuna University</td>
<td>Guntur</td>
<td>Guntur</td>
</tr>
<tr>
<td>8</td>
<td>Kakatiya University</td>
<td>Warangal</td>
<td>Warangal</td>
</tr>
<tr>
<td>9</td>
<td>Sri Krishnadevaraya University</td>
<td>Anantapur</td>
<td>Anantapur</td>
</tr>
</tbody>
</table>

85
<table>
<thead>
<tr>
<th>No.</th>
<th>University Name</th>
<th>City</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Dr. B.R. Ambedkar Open University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>11</td>
<td>Central Institute of English and Foreign languages</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>12</td>
<td>Sri Padmavathi Mahila Visvavidyalayam</td>
<td>Tirupathi</td>
<td>Chittoor</td>
</tr>
<tr>
<td>13</td>
<td>Potti Sree Ramulu Telugu University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>14</td>
<td>NTR University of Health Sciences</td>
<td>Vijayawada</td>
<td>Krishna</td>
</tr>
<tr>
<td>15</td>
<td>Rashtriya Sanskrit Maha Vidhyapeetam</td>
<td>Tirupathi</td>
<td>Chittoor</td>
</tr>
<tr>
<td>16</td>
<td>NIMS</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>17</td>
<td>Sri SSIHL</td>
<td>Puttaparthi</td>
<td>Anantapur</td>
</tr>
<tr>
<td>18</td>
<td>S V Institute Of Medical Sciences</td>
<td>Tirupati</td>
<td>Chittoor</td>
</tr>
<tr>
<td>19</td>
<td>Moulana Azad National Urdu University</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>20</td>
<td>IIIT</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>21</td>
<td>NALSAR</td>
<td>Hyderabad</td>
<td>Hyderabad</td>
</tr>
<tr>
<td>22</td>
<td>NIT</td>
<td>Warangal</td>
<td>Warangal</td>
</tr>
<tr>
<td>23</td>
<td>Dravidian University</td>
<td>Kuppam</td>
<td>Chittoor</td>
</tr>
</tbody>
</table>

Section - B: University Libraries - Growth and Development

University libraries play a vital role in the development and promotion of university education in the country. Shankar Dayal Sharma, the then President of India, while inaugurating the World Book Fair at New Delhi in 1988 rightly observed that “a library is
more important than a university because library can function without a university whereas a university cannot do without a library”.

Library, being a treasure house of information, not only gather, store and disseminate but also serve as an effective agency for creation of fresh ideas and new knowledge. The goal of a university library is to provide suitable information materials useful for study, teaching and research purposes in a university. The university library functions as conservator of knowledge, ideas, teaching, research, publication, extension and service and interpretation. Libraries supplement the classroom teaching work and provide wide range of knowledge required to attain intellectual pursuits. A well-equipped library is not only necessary for all teaching and study but also essential for research. A systematically developed library collection serves as a major academic facility to the faculty as well as to the students and enables them to achieve better results in their respective fields. A good university library is indispensable for achieving academic excellence in any university.

Hunter Commission in 1882 enquired into the existing educational system along with the conditions of libraries and observed the necessity of improvement of libraries attached to the institutions.

The libraries of the universities established in Calcutta, Bombay and Madras in 1857 were started in 1862, 1873 and 1907 respectively. Since these universities were not the centers of learning and research but were mainly meant for holding examinations and
awarding degrees, the need for well-equipped and organized library system was not felt. This situation was evident from the Report of the Indian Universities Commission 1902.

The Commission was very critical of the poor state of affairs of university libraries and observed that there was not much to be said about the present university libraries. The Commission recommended that "good reference libraries should be provided in both universities and colleges so that students might have an opportunity of forming the habit of independent and intelligent reading".

Calcutta University Commission set up in 1917 declared that maintenance of a university library with adequate and up-to-date collection is essential to a first class university. Sadler, the Chairman of this Commission emphatically said that "great libraries and great laboratories are needed to make great universities". The Commission also recommended that 'The University Librarian' ought to be a functionary of great importance ranking with University Professor in terms of salary and status and should be an ex-officio member of the Academic Council of the university'.

Report of the Hartog Committee in 1929 emphasized the need for developing the libraries adequately with books and journals.

During 1950's, in the wake of independence, Indian University libraries much benefited by the financial assistance through India Wheat Loan Educational Exchange Programme of the United States of America. This helped the university libraries to acquire American
books, journals and scientific equipment, etc. Incidentally, the programme benefited not only 36 university libraries, but also 52 research institutional libraries. The total amount spent was approximately Rs. 54,30,000/-. 

Realizing the value of libraries in higher education, various expert committees and commissions set up by the Government of India have made strong recommendations for the development of university libraries in the country.

University Education Commission set up in 1948 under the Chairmanship of S. Radhakrishnan, realizing the importance of libraries in the fulfillment of the objectives of higher education, had stated that "The Library is the heart of all university's work: directly so, as regards its research work and indirectly as regards its educational work, which derives its life from research work. Scientific research needs a library as well as laboratories, while for humanities research, the library is both library and laboratory in one".

C.D. Deshmukh, the first chairman of the UGC, while drawing an analogy between a university and the human body remarked that "the students form the body of the university, the administration is the head, the teachers are the soul and the library is the heart".

The UGC is fully conscious of the "new and intimate role of libraries in universities/colleges in our reascent India" and started giving liberal grants to libraries for buildings, furniture and for the purchase of books and periodicals,
Keeping in view the value and importance of a well-organised and well-equipped library, the UGC played an extraordinary developmental role by providing adequate financial assistance for collection development, acquisition of books and journals, purchase of furniture and equipments, construction of new library buildings and various important schemes, which helped the university libraries to make rapid progress during the last five decades in the country.

3B1 UGC Committee for University and College Libraries (1957):

The UGC appointed a library committee in 1957, under the chairmanship of S R Ranganathan to advise on the matters relating to the proper functioning and management of college and university libraries in the country.

The Committee systematically surveyed the academic libraries and was very much disappointed to find poor facilities, service and budget of university libraries. The library committee conducted a seminar on 'work flow in university and college libraries' at Delhi from March 4 to 7, 1959 to appraise the librarians about the findings of their survey. The Committee submitted a comprehensive report in 1959 making concrete recommendations on various aspects of library viz. library grant, purchase of books, cultivating reading habits, facilities for inter library loan, photocopying, reference and documentation services, building a microfilm collection, open access system, preparation of union catalogue of books and serials to
facilitate cooperation among libraries, library personnel, library building and furniture etc. One of the important recommendations is that the status and the salary of the library staff should be equal to that of the teaching and research staff. The UGC accepted the Committee's recommendations as norms for the development and promotion of university libraries in the country.

The Education Commission (1964-66) reiterated the importance of libraries in higher education in its report as 'Nothing could be more damaging to a growing department than to neglect its library or to give it a low priority. No new university, college or department should be opened without taking into account its library needs in terms of books, journals, space etc."

The Commission laid stress on the proper development of university library system and recommended that a library should:

1. provide resources necessary for research in all fields of special interest to the university;
2. aid the university teacher in keeping abreast of developments in his field;
3. provide library facilities and services necessary for the success of all formal programmes of instruction;
4. open the doors to the wide world of books that lie beyond the borders of one's own field of specialization; and
5. to bring books, students, scholars together under conditions which encourage reading for pleasure, self discovery, personal growth and the sharpening of intellectual curiosity.

3B2 Review Committee on Library Science (1961):

In 1960, very few universities were conducting certificate, diploma and degree courses in library science. There was no uniformity either in admission rules or qualification criteria, or in curriculum or syllabus, or practical training or quality of teaching. There were not many qualified professors of library science in the country. Therefore, librarians used to work as part-time faculty in library schools. Thus, the standard of both teaching and the library work used to suffer.

On the recommendation of the UGC Library Committee of 1957, a Review Committee on Library Science was appointed in 1961 under the chairmanship of S.R. Ranganathan. Other members of the Committee were C.P. Shukla, K.A. Issac, S. Bashiruddin, P.N. Kaula, B.S. Keshavan, J.S. Sharma and Prof. S. Das Gupta with P.J. Philip as the Secretary.

The Committee strongly recommended having close cooperation between the library and the department of library science of a university. It emphasized that library science faculty should work in the library for short periods and librarians should maintain academic interest and deliver a few lectures for the course. But, the Committee disapproved employing library staff as part-time teachers in the library.
schools instead of appointing full time teachers. It was also emphasized that teachers of the library science should be treated on par with the teachers of the other departments in all academic and administrative matters of the university. The UGC accepted all the recommendations of the Review Committee for implementation by the library schools.

3B3 The Mehrotra committee (1983):

The UGC appointed a committee on December 24, 1983 under the chairmanship of Prof. R.C. Mehrotra, Emeritus Professor, Rajasthan University, Jaipur, to consider the revision of pay scales, career / professional development and service conditions of teachers in universities and colleges. In October 1985, the UGC, in consultation with the Government of India, requested the Mehrotra Committee to consider the revision of pay scales of librarians and directors of physical education too. The Committee submitted its report on the revision of pay scales of librarians to the UGC on September 3rd 1986.

Recognizing the importance of libraries in imparting and disseminating knowledge, the Mehrotra Committee discussed the functions of librarians in ever-changing trends in development in the fields of library and information science and use of modern innovative information and communication technologies. The Committee’s recommendations to revise the pay scales of librarians at various levels considering duties assigned to them were commensurate with
qualifications and improvement in quality of library services. Librarians must have promotional opportunities, adequate facilities to improve their qualifications or attend refresher courses to update their knowledge and new courses to impart instruction on modern technological developments.

The Committee discussed at length the qualifications for the recruitment of librarians. In order to have wider choice, M.Phil and Ph.D. degrees were not made essential for the recruitment, but qualifying national eligibility test (NET) in library and information science for lectures, assistant librarians, documentation officers and college librarians, was made necessary to improve the quality of new entrants. Librarians also needed to prepare self-assessment reports at the end of each financial year. Assessment by users of library should be considered important while assessing a librarian's performance. Promotion of librarians must be linked to the acquisition of additional qualifications. The Committee suggested that librarians should be given duty leave to avail opportunities to attend summer schools, workshops, seminars, etc., to keep themselves abreast of modern developments.

The Government of India accepted the recommendations of the Mehrotra Committee and issued orders for implementation of the revised pay scales and qualifications for teachers in universities and colleges vide document No.F.1-21/87-U.1 dated 22nd July 1988. The recommendations regarding scales of pay, career advancement,
promotion, terms and conditions of revised scales, recruitment and qualification requirements, continuing education and appraisal of performance, service conditions, including period of probation, non-vacation, age of superannuation, code of professional ethics, grievance redress mechanism and pay fixation formula were to be modified suitably for librarians at different levels considering the duties assigned to them.

3B4 National Policy on University Libraries: A Proposal by AIU (1986):

According to the National Policy on University Libraries as proposed by the Association of Indian Universities (AIU), the objectives of university libraries are:

- to support the teaching and research programme of the university.
- to develop collections by acquiring necessary reading materials to meet the present and future needs of its users.
- to organize its collections, operations and services so as to provide for the reading materials and information needs of its users in anticipation and on demand.
- networking and resource sharing among university libraries should be practiced by each institution towards utilisation of all resources.
> to introduce, if necessary, technological innovations like computer/word processing etc., to facilitate users to get prompt service.

> to provide facilities like reprography, inter library loan, translation and documentation to assist users.

> to promote library user education related to technological innovation so that the academic librarian will no longer remain a craftsman but serves educationists through technological means;

> towards achieving the above goals, to get adequate financing, staff, storage and other facilities, and

> maximize efficiency of services with reference to inputs/expenditure so as to make library services cost effective.

3B5 Committee on National Network System for Universities/ Libraries(1988):

The UGC setup a Committee on National Network System under the chairmanship of Prof. Yashpal, the then Chairman of the UGC in 1988 to suggest measures for networking of libraries and information centers in universities, deemed universities, institutions of national importance, the UGC information centers, R&D institutions and colleges. This committee constituted a working group which prepared a project report for the establishment and development of an Information and Library Network, in short, called, INFLIBNET in the country during the Eighth Five year Plan (1990-95) period.
The main objectives of INFLIBNET are:

➤ To evolve a national network, interconnecting various libraries and information centers in universities, deemed universities, colleges, UGC information centers, institutions of national importance and R and D Institutions, etc. in the country for efficient sharing of information resources available with them and to improve capability of information handling and services.

➤ To provide reliable access to document collection in various libraries in India.

➤ To provide better access to worldwide bibliographic information sources.

➤ To provide document delivery service by establishing resource center libraries having rich collections.

➤ To optimize information resource utilization through various cooperative activities.

➤ To implement computerization of library operations and services.

➤ To facilitate academic communication amongst academic, research and student community.

➤ To create database of projects, institutions and specialists for providing online information service.

➤ To train and develop human resources in the field of computerized library operations and networking to successfully
participate in the establishment and regular operation of INFLIBNET.

3B6 Curriculum Development Committee on Library and Information Science (1990-93):

The UGC initiated the scheme of restructuring of courses during the Seventh plan to make education relevant to the needs of the community. A number of Curriculum Development Centers were set up in 1986 to review the existing syllabi and to suggest measures for modernizing unit model courses. In March 1989, 27 Curriculum Development Centers were in operation and model Curriculum of 20 disciplines were developed. Efforts were made to make education socially relevant and meaningful considering modern trends in development of each discipline. Many universities and colleges have adopted newly structured courses.

In fact, university library is an integral part of the institution. It plays a vital role for the benefit of students, teachers, researchers and all those who are interested in higher education. The main aim of the university library is to serve efficiently the participants in the instructional programme. "University library directs its activities towards the fulfillment of the university which are as follows: conservation of knowledge and ideas, teaching, research publication, extension and service and interpretation of research. Library exists not merely to help the instructional functions at the university. It also does
a good deal in the aid of research, which is another major function of a university.

Library, therefore, performs a variety of functions by way of helping students with text books, reference books and periodicals, by providing a large number of bibliographical tools and up-to-date literature on every subject for students, teachers and researchers workers as well as by maintaining an efficient reference and information service". A university library serves as a vital link in the chain between research and practice. It acts as the center of all academic activities of the university. It remains more than a library - a laboratory and a workshop. It is the hub of all activities in an educational institution. It is the core of a university. The standard of a university, the quality of instruction provided by it can be gauged by the quality of its library services to readers.

Shri N N Gidwani observed that the quality of a university and university library should have a correlation in its structure, organization and objects. He further stated, that "there is, in fact, a close correlation between the nature of a university library and the quality of a university. If the faculty be compared to the brain of a university, its library would then resemble a healthy heart circulating the life blood of learning through the arteries of the whole university body. "Thus, we find that for the successful operation of a university, library coordination between the faculty of the university, teaching and research, is a must."
3B7 A brief account of University Libraries under study:

A brief account of university libraries under study is given hereunder.

1. Osmania University (OU), Hyderabad: Osmania University is the oldest university in Andhra Pradesh. Founded on October 5, 1918 by a Royal decree of the then ruler of Hyderabad, Mir Osman Ali Khan Bahadur, VII Nizam, the university owes its name to him. Its jurisdiction, which at that time extended throughout the Andhra Pradesh, is now confined to the districts of Hyderabad, Mahbboob Nagar, Medak, Nalgonda, Ranga Reddy and Nizambad.

The Osmania University library, besides being the oldest library of the 15 university libraries under study, has also a good library building at the center of the university campus.

2. Andhra University, Visakhapatnam: Andhra University was established in the year 1926 by an Act of the Madras Presidency state legislature (1925) which envisaged the establishment of affiliating, teaching, under residential university for the Telugu (Andhra) districts. But the jurisdiction was narrowed down by later act to five districts viz, West Godavari, East Godavari, Visakhapatnam, Vizianagaram and Sreekakulam.

The library came into existence in 1928 at Bezvada since the university was started initially at that place. The Library was started with a nucleus of 5400 volumes donated by Rao Bahadur D. Lakshmi Narayana, an industrialist of Andhra. During 1930-36 the library was
housed in its own building, constructed at a cost of one lakh rupees at its permanent headquarters at Waltair. The library made steady progress from 1937-to 1942, along with the university. The library had to be shifted to Guntur as a safety measure on account of II World War and the bombing at Visakhapatnam. In 1946, the library reoccupied its own building at Waltair with an increased collection of more than 40,000 volumes. But the collection grew from year to year and touched the 50,000 mark in a decade. The foundation stone was laid for a new building on 21 August, 1957 by Sree Nilam Sanjeeva Reddy, the then Chief Minister of A.P and the construction was completed in three years. The new five storied library building was opened by Dr. K.L. Shrimali, the then Union Minister for Education on 4 December, 1960.

3. Sree Venkateswara University (Tirupati): Sree Venkateswara University is the third biggest university in A.P. It was established in 1954 at Tirupati to meet the requirements of higher education of the rain shadow regions of Rayalaseema and Nellore. It is located on a sprawling 1,000 acre campus with picturesque Seshachal Hill Range of the Eastern Ghats forming the backdrop. After the upgradation of the Ananthapur P.G. center in 1981, its territorial jurisdiction has been confined to the districts of Chittor, Cuddapah and Nellore.

Sree Venkateswara University Library was started in the year 1955 with a small collection of 6,700 books taken from Sree Venkateswara college, Tirupati. 20,000 books of Oriental Institute
were also added to this collection in 1964. The library building is centrally located and easily accessible to all the departments on the campus. The impressive dome, well planned garden around the building with a network of fountains in front and the overall grandeur of the library building made our former president late Dr. S.R. RadhaKrishnan to describe it as the 'Taj Mahal of the south'.

4. Kakatiya University (Warangal): Kakatiya University was started in 1976 in Warangal and now is poised to become a center of academic excellence. Its jurisdiction is extended to four Northern Telangana districts of Kareem Nagar, Khammam, Adilabad and Warangal.

The University has a University Engineering College, a Regional Engineering College (REC) (an associate college), two private Engineering Colleges, one Pharmacy College, a University College of Law, four private Law Colleges, 14 MCA Colleges, 5 Colleges of Oriental Learning, 13 MBA Colleges, 8 Private Colleges of Education and a big number of affiliated colleges offering under graduate programme. It has now in its fold 137 colleges located in its territorial districts.

The former Osmania University P.G. Center library became the university library in the year 1976. There is a separate, well planned library building with good furniture fixtures and fittings.

5. Nagarjuna University (Guntur): Nagarjuna University, which was started in the beginning as an autonomous P.G. Center at Guntur, emerged as a full fledged university in August 1976. It caters to the
needs of higher education in three districts viz, Krishna, Guntur and Prakasam. It has two P.G. Centers one at Nuzvid and the other at Ongole.

The University has 37 academic departments and 7 centers of higher learning under operation since 1992. It has 213 affiliated colleges offering education in Under Graduate, Post Graduate, Engineering, Education, Law, Pharmacy and Oriental Language courses. The student strength of this University is about 1.2 lakhs. It has 28 P.G. teaching-research departments on its campus besides 38 affiliated colleges offering P.G. Courses.

The library of the erstwhile P.G. Center became the Ambedkar Memorial Library of the university and was housed in a separate, spacious building at the heart of the campus.


The university has 96 colleges affiliated to it. The SKU P.G. Center at Kurnool came under the jurisdiction of this university in 1993.

The university library is at present housed in a spacious and separate building with sufficient furniture and fittings.
7. Acharya N.G. Ranga Agricultural University (ANGRAU)

Hyderabad: Acharya N.G. Ranga Agricultural University formerly A.P Agricultural University is one of the earliest state agricultural universities. The University, established in the year 1964 was based on the Land Grants System of Education. The Mandate of the university is to provide agricultural extension mainly to rural people of Andhra Pradesh and to promote research and extension programmes in agriculture and allied fields.

ANGRAU Library, an oldest state University Library, was also established in 1964. The central library is well planned with adequate furniture, fixtures and fittings.

8. Jawaharlal Nehru Technological University, Hyderabad: The Jawaharlal Nehru Technological University was established in the year 1972 by an act of state legislature. The university started with three Government Engineering Colleges at Anathpur, Hyderabad and Kakinada along with Government college of Fine Arts and Architecture at Hyderabad as its constituent colleges. In addition to these the Oil Technological Research Institute at Ananthapur was subsequently transferred to JNTU in 1985. The Institute liaises with oil-based industries and has organized many research programmes. The Institute won several Gold Medals. Subsequently, JNTU Act was amended in 1992 to affiliate any other college notified by the state government. The newly emerging engineering colleges in A.P, after 1995 have become affiliated to this university. The library is housed in
the fourth floor of the academic block and provided with furniture, fittings and fixtures.

9. NTR University of Health Sciences (NTRUHS, Vijayawada): NTR University of Health Sciences was established under the A.P. legislature Act No.6 of 1986 at Vijayawada to provide training and research on allopathic and Indian system of medicine, dentistry, pharmacy and nursing. The objectives are as follows:

a. To maintain a uniform curriculum in all the institutions affiliated to it.

b. To conduct a common entrance examination for admission into courses in all institutions affiliated there to and

c. To improve standards of medical education, including research.

A separate library with all modern facilities has been constructed to house the specialized collection.

10. Sri Padmavathi Mahila ViswaVidyalayam (SPMVV), Tirupati: Sri Padmavathi Mahila Viswa Vidyalayam was established by Sri Padmavathi Mahila Viswa Vidyalayam Act 1983 passed by the A.P. Legislature. The Jurisdiction of the University extends over the entire state of Andhra Pradesh. SPMVV is the only institution of higher learning in Andhra Pradesh devoted exclusively to women's education. The University was established with the conviction that emancipation and improvement of women can be achieved only thorough education. Towards this end, the university offers courses.
which serve the dual purpose of academic excellence with applied orientation.

Sree Padmavathi Mahila Viswa Vidyalayam Library was established in 1983. It is housed in the Academic Block.

11. Potti Sri Ramulu Telugu University (PSRTU) Hyderabad: After the formation of Andhra Pradesh in 1956, the State Government established several academies for faster development of arts, culture and the Telugu language. In 1985, all these academies amalgamated into 'Telugu Vignana Peetham' and subsequently, PSRTU was established by an Act of 1985 for the promotion and advancement of Telugu language, literature and culture and 'Telugu Vignana Peetham' was merged into the University. Jurisdiction of the University extends to the entire state of Andhra Pradesh. The 'Telugu University', the second university in the country to be based on a regional language, has its headquarters in Hyderabad with separate campuses at Rajahmundry, Srisailam and Warangal.

Telugu University Library was established in 1985 along with the University. There are two libraries functioning both at Srisailam and Rajahmundry.

12. Dr B.R. Ambedkar Open University (Dr.BRAOU), Hyderabad: Dr. B.R. Ambedkar Open University, formerly known as Andhra Pradesh Open University, is the first open university in India and was setup by an act of the A.P. state legislature in August 1982. It has a state-wide jurisdiction. The headquarters of the University is at Hyderabad.
The University was renamed in 1991 after the great national leader of the oppressed classes and the architect of Indian constitution by amending the university act. This University was started with the objective of providing educational opportunities to those who could not take advantage of institutions of higher learning and to provide opportunities in higher education to a large segment of the population including unemployed, women, housewives and adults who wish to upgrade their knowledge/education, in various fields through the open and distance mode.

Dr. B.R. Ambedkar Open University library along with the university came into existence in 1982. It is housed in a new building complex of the University.

13. Central Institute of English and Foreign languages (Hyderabad): The CIEFL was established in 1982. The CIEFL library has a separate planned library building with adequate modern furniture.

14. University of Hyderabad, (Hyderabad): The University of Hyderabad was established in the year 1974 by the act of parliament. It is a central university fully founded by the central host. The jurisdiction of the university extends to the whole of Andhra Pradesh. The university's sprawling campus spreads over 2,300 acre of land. The university has branches like Mathematics & Computer/Information Sciences, Physical, Chemistry, Life Science, Humanities, Social Science and Sarojini Naidu School of Performing Arts, Fine Arts & Communication.
The university library is a central facility to support the teaching and research needs of the university. It is named as Indira Gandhi Memorial Library by the then vice President of India, Dr.Sankar Dayal Shrama.

15. Rashtriya Sanskrit vidyapeeth (RSV),Tirupati: The Rashtriya Sanskrit Vidyapeeth , a Central Government institution of higher learning was established in the year 1987 at Tirupati exclusively for promoting sanskrit language . The Vidya Peetha has a separate library block and adequate space and required furniture and fittings.

Section – C: University Libraries and Information Technology

People want the required information either at their work place or home to fulfill their needs. Electronic media has made it possible by reducing the world into a global village. Evolution of information technology has great impact on library and information centers for storage, processing and access to the information. The economic constraints and technical developments have necessitated the library and information centers to go for cooperative efforts by sharing their resources through networks. New services are introduced with less effort, efficiency is increased and user satisfaction achieved with the help of information technology. In fact information technology has given a new image to library and information centers by creating a
change in the attitude and approach of users as well as librarians towards the human activities and programmes.

IT covers an array of media, tools and gadgets and the impact of which is felt in many areas of life including libraries. IT may reach libraries and their users in the form of technology or a product or a resource or a facility / infrastructure or a service. As a fast growing and changing technology IT is all-pervasive, competitive and even unique in some respects. The scope and advantages of multifaceted IT in information work is enormous. IT is even drastically affecting the habits, styles and idiosyncrasies of users and staff of libraries.

"Modernizing library services, on the surface of it, means adopting modern methods, tools, techniques and gadgets in providing library services. But it is also implied that modernization should bring in increased efficiency, effectiveness, speed and reduction in cost per unit service or any combination of them in library services. Critical review, test and evaluation of implementations, experiments and pilot projects are necessary to ascertain the real achievements. Often, modernization of library services is more of psychological, publicity oriented and prestigious imitation rather than an absolute necessity. It should not be forgotten that modernization using IT does not assure better result if traditional manual ways of providing library services are themselves defective, irrelevant and unsatisfactory".12

Information technology is the boon of the present century. It is the combination of several technologies and systems such as computer
technology, telecommunication technology, micrographic technology and information retrieval technology. Today, due to the information highways and information super highways, new knowledge would get disseminated at the global level within no time. The promising and diversified possibilities of information technology have reduced the space and time between people, countries and continents. The third industrial revolution fuelled by the combined powers of information technology, is changing not only in the way people work but also their perceptions and insights into the world. Society will emerge from the third industrial revolution as a global village.

"The possibility of information technology in disseminating information from the generator to the recipient at a faster rate has high relevance in the present day education. The various aspects of education such as learning, teaching and research which need radical changes are amenable to the application of information technology. So information technology as a tool can be used for the effective management and dissemination of information in the various aspects of education".13

"Information Technology (IT) plays a vital role in information handling such as reduction in computing time, resource sharing, high storage capabilities on different media, telecommunication and networking facilities. The present century marks a period of information revolution with the application of IT every where. The advancement has facilitated the designing of new library software and
thereby making the delivery of the information quicker, more convenient and highly efficient than ever before. With the users feeling increasingly comfortable with computer and the sharp reduction of prices of hardware and software, more and more libraries have opted for computerising the libraries for their convenience and efficiency to meet the demands of its clientele”.

The management of massive volume of information and its proliferation into many forms has created the problems of storage, processing, retrieval and dissemination in libraries. The evolution of modern technologies has greatly improved the capabilities of managing this explosive growth of information effectively. Libraries have tried to overcome the problems of information management by adopting modern technologies such as computer technology, CD-ROMs, networks etc.

IT application in library and information field has made remarkable progress in developed countries of the world, where hardware, software and communication technologies are well developed. As a result of these rapid technological advancements, they are able to computerize library operations and information services successfully. Besides performing library operations efficiently and improving services effectively, libraries are able to evolve effective computer networks towards optimum utilization of their resources, facilities and services. The library networks in the USA are in the most advanced level of development.14
3C1 IT in Libraries:

Information technology changes the whole structure and working environment of the library. The skills required to manage technology are different from the skills required to manage a traditional library. In the present day context, information technology is needed in libraries and information centers because of:

1. "Information explosion: The amount of information is increasing exponentially. It is difficult to handle such a large amount of information without computers.
2. To share the resources with other libraries.
3. Availability of information in Machine-readable form: To access information that is available in machine-readable form we need to adopt technology.
4. Multi-use of machine-readable record: A machine-readable record can be used by many users for various purposes any number of times. For example, a record created for acquisition section can be used for some other purpose.
5. Duplication of work: IT relieves the library staff of repetitive work.
6. Data Processing: It takes less time to process data and retrieve".15

UNESCO defines Information Technology as “The scientific, technological and engineering disciplines and the managerial techniques used in information handling and processing, their
applications, computers and their interaction with men and machines and associated social, economic and cultural matters"(Peltu 1982).16

ALA Glossary of Library and Information Science defined IT as "the application of computers and other technologies to the acquisition, organization, storage, retrieval and dissemination of information"(American Library Association, 1983).17

The British Department of Industry defines Information Technology as “the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a microelectronics based combination of computing and telecommunications” (Longley, 1985).18

According to Olsen (1989), the convergence of three key technologies, viz., computers, telecommunications and microelectronics, and the development of a whole range of media (magnetic, optical and now magneto-optical), software, products, and services constitute the package being called information technology.19

Information Technology is a broad term that encompasses wide range of sub-technologies. It is the convergence of computers, communication and micro-electronic based technologies. IT is undergoing rapid revolutionary developments. Successive developments in IT are tremendously enhancing their capabilities resulting into better technological devices, innovations, products, services and quality solutions. In recent years, IT has expanded so rapidly to include a wide array of devices, information products and
services that transformed the role of a library into a gateway of accessing global information resources.

Soubra (1995) stated that IT is a revolutionary technology evolved with great rapidity leading to (i) decreased cost of information and data processing, (ii) speedier information processing, (iii) decreased size and increased reliability of equipment, (iv) digitalization of information, and (v) growing importance of software. Further, he stated that there are rapid developments in microelectronics in the last 20 years from 1971 to 1992. Microprocessor capacity and performance improvements were about a thousand fold and, in storage about a hundred fold.20

Moore (1997) stated that the impact of information technology arises from three of its characteristics. First, it is an enabling technology applied in a wide range of different circumstances. Second, the capacity of the technology has been increasing at an exponential rate. Finally, and perhaps most important by, the cost of the technology has fallen rapidly over the same period and, again, seems likely to continue to do so.21

Tedd (1997) reported that very large-scale integration of the electronic components that comprise any computer has resulted in a huge increase in the power available and a decrease in the cost of processing. The speed of processing and the amount of information stored in main memory have increased dramatically over the years with a parallel decrease in their costs. The capacity of hard disk has
increased greatly over the years from about 5MB in 1980 to as high as 2.5 GB in 1996 (a GB is equal to 1000 MB) with dramatic decrease in the price of CDROM technology.\textsuperscript{22}

\textbf{3C2 Quality in Academic Libraries:}

Quality means ‘to meet or exceed the needs and expectations of the customer in the most cost-effective way’. It has four basic elements, which are (a) customer expectation (b) competitor (c) cost and (d) technology. Within the competitive economic environment, it is necessary to satisfy not only the stated requirements of the customer but also the implied needs. A good quality system makes sure that quality is every one’s responsibility and a part of every activity. A good quality system ensures also consistency of products and services and guarantees the utilization of same materials, same methods and procedures every time in the same way. Quality system, especially in case of service organizations like libraries, has three key aspects like management responsibility, personnel and material resources and quality system structure. Therefore the following guiding principles of quality systems are:

1. Meeting the requirements of the customers both internal and external on time and with full satisfaction.

2. The involvement and commitment of every individual to achieve quality.

3. Quality is built into the process and it comes through prevention rather than cure.
4. Quality is measurable and it can be measured by non-conformances.23

Library is not only a storehouse of books and other reading materials but also a center for knowledge generation and production of various knowledge based documents and services for the use of various end-users in different environments. These products and services assist the users to take right decisions at right time for the execution of the policies, programs and targets in all areas. This objective cannot be achieved by an organization without an effective and efficient support of the libraries and information centers. This factor motivates the librarians and managers of information centers to provide quality based library and information services to the stakeholders. Retesting this fact, various organizations and professional associations in all the areas including library and information science have initiated to discuss and deliberate to implement the TQM in their practices and services.24

The academic library is not a static free-standing unit. Ultimately, its quality must be judged by the quality of outcomes of the institution. In a more immediate sense, a library’s success is realistically confirmed by feedback and support from stakeholders (faculty, administration, students, alumnae,) and validation by accreditation and other external bodies. It seems a long way from the concrete measurement of library process and service data to this larger view of library impact and educational outcomes. Have the
associations, institutions and leaders within higher education viewed the library as a key component of these outcomes? Librarians have struggled to have their issues acknowledged by scholars, administrators, and policy makers yet the only way to guarantee understanding is also to do the reverse, - to use measures of library performance and effectiveness to demonstrate the success of processes and goals within higher education itself.

Knightly distinguishes clearly and simply among library inputs, process, outputs, and effect (impact) as the components of a system, and the four types of evaluation that may result, (1) effort evaluation (inputs) (2) process evaluation (appropriateness and efficiency of activities) (3) effectiveness (output and the accomplishment of objectives) and (4) impact (on the parent or broader community). As the development of TQM took hold over a decade later, it is apparent that the evaluative structures for looking at processes and effectiveness were long in place. Knightly further outlined the debate over measures themselves, enumerating seven types of measurement criteria, (1) assessment based on user opinion (2) expert opinion (3) standards (4) peer comparisons (5) quantifiable outputs (6) quantifiable processes and (7) based on unit costs in combination with the other criteria. From these can be derived an enormous armada of tools and data. The measurement that will lead to an assessment of quality should ideally draw on all seven categories, though frequently only one or two are used at a time. King and Griffith summarize their long record of

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evaluative research and outline four categories of generic measures: (1) input cost measures (staff, equipment, facilities, collections, the allocation among those and their attributes) (2) output measures (quality of service, timeliness, availability, accessibilities) (3) effectiveness measures (amount of use, user satisfaction, user – expressed importance of services, consequences of use of service) and (4) service domain measures (total population size and attributes, user population size and attributes). They further identify four kinds of derived indicators: operational performance, effectiveness, cost effectiveness, and impact. While terminology differs, these same categories hold across many schemes of measurement: inputs, processes, outputs, outcomes. It is the relationships among the measures that provide a basis for decision making, and what may start out looking like a quantitative measure can emerge as a qualitative indicator.  

The desire for quality has always been an attribute of librarianship. But the meaning of quality changes from individual to individual, may it be database producer, service provider, user or anyone else. Traditionally, the concern of quality was producers and service providers and they approached the quality from the perspective of inputs to an organization and took measures to check and control them. They assumed that the greater the inputs to libraries the grater (that is, the higher quality) will be output. This greatness has been measured in terms of stock size, amount of budgetary grants, strength
of library staff, mere number of services, availability of technologies etc. Library professionals did their best to enrich and enlarge the stock size, to utilize the grants available, to train staff to create awareness and update, adopt latest technologies for use and enhance user services. But, now-a-days these practices are no more the basis of quality, which lies in satisfying or delighting users exceedingly. It is the user of the service or product who is the ultimate judge of the quality. He weighs the value he receives from a service organization against the time spent and / or efforts involved in getting the desired service, and thus decides the quality. Users seldom define the quality in terms of stock size, annual budget, physical facilities, staff and number of services – no doubt, these are some of the essential criteria for providing quality service, it is the benefits of the service itself which the users look for. The TQM is a customer-focus approach wherein quality is the driving force of that entire creativity cycle from beginning to end.

The following are some practical steps a library can take to begin and maintain the process of delivering quality services:

1. Commitment to improve quality: It is essential to do things right and then there is need to improve them on continual basis. For this the employees need to have greater understanding of the improving processes and drive the accessing, structuring, storage and retrieval of information and every activity there of.
The whole organization must be committed to quality improvement.

2. Delegation of powers: Frontliners are the people who come into contact with customers. In library context the frontliners are the personnel involved in reference, circulation, inter-library loan, shelving activities etc. They must be empowered to solve users' problems with more speed, accuracy and completeness.

3. Develop comprehensive customer information: Information about users regarding their actual and potential needs, key-terms, change in need pattern, etc. is to be collected and used. Modern technologies may be used for developing the customers' information systems and services.

4. Continual assessment of the services: Continuous assessment of the library services is essential to judge the ability of systems, processes and services to deliver results and meet the objectives in a consistent manner. Initiate a feedback system and use information to adjust processes to respond to users' needs, wants and expectations and change the procedure to become more user-centered. The use and user studies should be conducted on regular basis.

These steps cover most of the basic tenets of the TQM as use focus, empowerment and involvement of employees, continuous improvement, and commitment towards quality.26
3C3 Information Technology and Five Laws of Library Science:

The foremost function of every library is to know the needs and requirements of its users and serve them accordingly. Thus there should be no gap between users and information. Ranganathan has formulated the "Five Laws of Library Science" as guiding principles for the best use of libraries and its services. Even in the present era of information technology, Ranganathan's Five Laws of Library Science are showing the path for assessing the usefulness of information technology in library and information science. These laws are:

1. Books are for use
2. Every reader his/her book.
4. Save the time of the reader and the staff.
5. The library is a growing organism.

Today, in the modern era, information technology is proving to be a facilitator in the applicability of these laws so that the readers/users can have the maximum benefits of library and its services.

1. Books are for use: First Law

Earlier, most of the reading material was available in the book forms but today, it is available not only in the form of books but also in other forms like the CDs, audio and video, graphics etc. The change
in the form of reading material has also increased the importance of
the first law. The use of information technology in libraries ensures
convenient access of information with high accuracy and in less time.
In the digital era the law is now stated as ‘information is for use’.

Moreover, electronic media has made possible for the users,
the access of information on the different terminals even outside the
library and it satisfies its users what, when and where they want
information. Users are also curious for up-to-date information-well
qualified and professionally trained staff is required to handle large
databases and library networks etc and to guide the users for the
retrieval of information. Moreover, the librarian and the staff can guide
the users in searching different databases and networks.

2. Every reader his/her book: Second Law

Every reader of library should have the books he/she wants.
Earlier, the preference was given to the aristocrats and the upper
classes of the society for the access of libraries but now with the
passage of time the concept has changed and the library services have
become one of the most important channels for the flow of knowledge
and information as a basic right of all citizens without any distinction.
Thus everybody must be provided with the information according to
his/her needs. Modern technology has made it more and more possible
for the users by offering access to information sources through
different databases. Now the users can have access to online databases
through direct dial, telex, internet etc. Other telecommunication
networks have also made possible to search large number of bibliographical records from some distant databases. In this information age the second law is restated as 'Every reader his/her information'.


Keeping in view the third law, information technology has made easy for users to select the documents of their own choice. Current Awareness Service (CAS), Selective Dissemination of Information (SDI), indexes, abstracts, catalogues etc assist the users in every piece of information. Some of the computer based services like AGRIS, INIS, MEDLARS, INPEC etc have also been developed to provide access of information to the users. In addition to this, computer based services help the readers to show the contents of the books, the abstracts of the articles etc., which assist users in book selection. In this information age the third law is restated as 'Every information its reader'.

4. Save the time of the user: Fourth Law

The law gives clear indications that librarians should provide the information to the users without taking much time.

The essence of the fourth law is—the information should be organized in such a way so that the user should get prompt and pinpoint information. Now advance in Information Technology has enhanced the librarians capabilities to save the time of the users as well as their own, Information Technology has made possible to
retrieve the information with comparatively high speed and with more accuracy.

Online databases, on-line catalogues etc. save the time of users and staff. Networks like DELNET, INFLIBNET, CALIBNET etc. in INDIA assist in providing the information in the libraries. CD-ROM technology has also facilitated literature searches at a much faster pace than before.

Information technology has made possible for users as well as for staff to have the access to information of other libraries in their own library without moving here and there. Thus automation in libraries is saving lots of time and labour of the staff and provides speedy services to the readers.

5. Library is a growing organism: Fifth Law.

Keeping in view the growth of library, information technology has given a very big hand to librarians for collecting and scanning of information with very high speed. Today, one can search thousands of bibliographical records on databases within minutes and with the access of these databases, librarians are able to procure and select different sources of information within no time. Electronic media has changed libraries into digital libraries. No doubt, digital libraries will not grow much in size but contain large information in compact form but these libraries will be rich in equipment and provide access to information to the users on different terminals also.27
Section – D: TQM for Libraries:

Application of management principles to libraries is quite old. Until the middle of 1930s, most libraries were operated under an authoritarian or at least conservative approach to management. The librarian was expected to make decisions in almost all phases of operations. After World War II, librarians applied a combination of ‘Scientific Management’ and some of the mathematical / operations research techniques. Dougherty and HeinRitz’s ‘Scientific Management of Library Operations’ is representative of the concern during this period with anyone interested in library management. Most of the library related work during this period tended to focus on activities and things rather than on people in contrast to F.W.Taylor, who definitely gave more importance to people in his work.

The period after 1955 envisaged the development of synthesis in library management theory rather than a strict human relations phase of operations. Only a few of Mayo’s and his followers’ concepts have been adopted during this period, and these have not really been applied as Mayo might have expected. ‘Human relations’ in libraries usually mean the democratic administration, participative administration, great use of committees and involvement (to apparent involvement) by staff in decision making.

In 1990s, a great deal has been written about the Total Quality Management (TQM). Books, articles, pamphlets, and hand books
described the basic principles, the process, useful techniques, the advantages and disadvantages.

TQM is the hybridization of the plus side of Taylor's scientific management and Japanese participative management. W. Edward Deming, Joseph Juran, Philip B. Crossby and Ishikawa are the pioneers in developing this new system of management.

Mass production of information is not a cliché any more but quality information is what the customers are really looking for. In case of rising cost of information services, customer dissatisfaction with lower quality of information as well as declining enrolments of customers have led to quality revolution. The quality management in libraries is concerned with: 1) Overall customer service, 2) Customer satisfaction, and 3) Cost reduction to achieve the goal of quality information products and services. The internal operating conditions studied included 1) Attention to customer requirements, 2) Group process and problem solving skills, 3) Internal communication throughout the organization, 4) Change to a more participatory management, 5) Timeliness of internal process, and 6) Efficiency.

"TQM had enabled those areas in the library, where it was implemented, to accomplish improved quality service with the same workforce. They were able to do this by utilizing customer surveys, flowcharting work processes, analyzing the data, brainstorming solutions, developing performance standards, and selecting and implementing solutions. Unlike some other management theories,
TQM does not promise a major turnaround in the library. Its hallmark is its emphasis on the process, not on personnel. Deming repeatedly states that, in most cases when an organization uses TQM, it will discover that ninety percent of the problems are caused by faulty processes, and only ten percent are related to personnel. Finally, change according to TQM comes through small incremental steps rather than overnight transformation. Therefore libraries implementing quality management must look for long-term performance. TQM is a process, not a program, a project or least of all a quick fix.28

TQM is a modern operational philosophy and universally applicable approach to any service sector and it is vital to the survival of most libraries today. It is a continuous quality improvement system that introduces and uses customer driven concepts, processes and tools and continuously seeks to measure its success in meeting customer needs and improve upon its processes. It involves total organization participation and customer focus. BSI / ISO Standards define TQM as a management philosophy enabling all activities through which the needs of the customer and the community and the objectives of the organization are satisfied in the most efficient and cost effective way by maximizing the potential of all employees in a continuing drive for improvement.

In TQM, customer satisfaction is the main ingredient, their specified requirements should be met and steps must be adopted towards satisfying the customer by anticipating his requirements. For
the success of TQM, the top management should be very serious about quality and they must be committed to it by setting clear objectives in its quality policy statement. Further, it should be spread to the middle level management and also at the shop floor or point of operations. Therefore TQM is a way of managing to improve the effectiveness, efficiency, flexibility and competitiveness of an organisation as a whole; it innerves the whole organization to gear up and committed to quality in each department, each activity and each person at each level.

Traditionally quality was checked or inspected at the end of the process. But now, the trend is to get it right at the beginning itself. It should not be inspected as a lonely function, but the quest for quality must be designed into all the organization’s systems and instilled into all its employees. So, TQM is customer driven, it insists upon defining quality in terms of customer requirements, the use of rigorous and measurable standards of quality and every staff should feel that quality as one’s responsibility and the commitment of the top management. Certainly this needs cultural changes in an organization. Tom Peters has expressed that a quality revolution means eating, sleeping, and breathing quality. Management obsession and persistence at all levels are essential. But the passion must be matched with a detailed process and as always, the customer must be present as the chief definer of what is important.”

The core concept of quality improvement and the characteristics of libraries will match because the library professionals
have always been committed to high quality service; consequently it is easy to adopt TQM in any service organization. TQM's emphasis is on 'strong top management support, a system approach and strategic planning, a customer focus, an emphasis on employee teamwork, empowerment and training, the use of measurement and analysis techniques to determine problems and evaluate improvement and commitment to continuous improvement.

TQM eliminates waste by checking the areas and processes of non-productive activities by means of critical and continuous examination and it involves every one to improve the ways in which the things are done. Therefore, libraries must be ready for transformation to a quality-focused environment because it is based on the culture which centered around customer and insists continuous improvement of products and services of the library by employee involvement and participative management. The system's evaluation and service quality is determined and judged by the customers. Data thus gathered will help in improving, refining specific library services and defining a service standard in meeting customers requirements and ever-changing needs of them. Therefore, TQM in library operation "emphasizes teamwork, culture change, individual responsibility, authority, creativity, accountability at all levels and enhanced productivity is the quest for strategies to improve quality."29

"Total Quality in Libraries covers the entire gamut of library activities. There is nothing that does not fall within its purview. It
encompasses not just the results aspect but also the quality of people and the quality of processes. It is an emotional experience for the user. Quality is an attribute of a product or service that can be improved. Total quality is a dynamic state associated with product (catalogue, current contents, accession lists, bibliographies) provision of service, processes, people and place (environment) that meet and exceed user expectation".30

Quality control and quality management will be among the 'hot' topics in the library and information sector in the 1990s. The growing interest and awareness among information sector managers are evidenced by recent initiatives of organizations such as EUSIDIC, GAVEL, UK ON LINE USER GROUP, by conference papers etc. However, one could say that quality always has been a primary concern for the information sector. This is quite true that in the library and information science professional literature we will find many articles about information quality issues. But there are significant differences between the way quality of information was treated in the 1970s and the 1980s and today.

One approach is to discuss the nature and properties of information quality from an academic or philosophical point of view and thereby obtain deeper insight into the problem of information quality. However, in most works on information quality the treatment was very technical in the sense it emphasizes methodologies for error and duplicate detection, automated authority control and spelling
correction in online databases. Finally, a third group of authors focused on methodological questions concerning measurement and evaluation of information quality. Common to almost all of the earlier contributions was the fact that they seldom saw information quality as a strategic management task. Thus, quality control was primarily considered a concern for information professionals, database-managers and the like.

The key question of the new managerial approach to quality control is, how to define, control and improve an appropriate quality level linked to the institution’s overall management strategy rather than how to support internal, professional quality standards not based upon customer expectations and needs. Here, the influence of service-management philosophy—the customer as the ultimate quality judge—is evident—consequently, the adherents of an absolute quality concept—or a transcendental approach to quality have lost ground also in the library sector. Besides, the managerial approach to quality management means a shift in focus from information quality itself to the processes of quality control and quality control systems.

Consequently, recent national and European research activities and projects will concentrate on quality assurance standards of libraries and information services and certification of libraries and information services according to international or national standards of quality systems as the ISO-9000 standards.31
Success of any service is the smiling face of customer after receiving the services. That is, customers' interests and needs are to be met and even they should get delighted after getting the service.

Gone are the days that you fix a standard of service level which you can accomplish and see how much you have accomplished at the end. In today’s world you should know in advance the customers' needs, perception and unrealized needs to delight them while delivering service, where as the price you charge them is secondary. One would ask a question whether quality of a library could be improved by adding computers, documentation services, new reference materials, more professionals etc. The answer is certainly a 'no'; you can’t improve the quality of a service / work by just automising and upgrading technology etc. That is:

➢ Quality cannot be improved by high investment in technology alone.
➢ Quality comes from people
➢ Quality is the result of attitudes and values.
➢ Organizational climate and culture decide the quality of products and services.

This clearly shows that just because a library is well equipped with advanced equipments, professionals, lot of supporting staff etc, quality of service (and pride of being in the service) is not bound to improve. The work culture, commitment and communication of those
who work / operate have to improve on a continuous basis with a proper feedback system.  

3D1 Quality Management in Libraries:  

According to Miller and Steams, the principles of quality management, if implemented carefully would yield immense benefits to a library and information center. They are:  

1. Incremental changes leading to continuous improvement.  
2. Forces library managers to develop leadership skills to obtain effective results.  
3. Increases staff participation in decision making.  
4. Improves the level of training given to staff, thus increasing their skills and abilities.  
5. Helps to break down barriers between library sections and improves communication within the organization.  
6. Provides a method of improving services to users.  
7. The time taken to provide information services decreases and the efficiency increases.  

3D2 Benefits of TQM for Academic Libraries:  

K.C.Dabas and N.S.Gill in their article “Understanding the essentials of Total Quality Management(TQM) for library and information management in Academic Settings” has narrated the following benefits of TQM for academic libraries:  

1. TQM reduces bureaucracy, empowers staff and creates a team base culture, which is keenly desired and suited for
mechanistic, hierarchical organizational structures like University Libraries. The Librarian's role becomes one of support and coaching.

2. It helps us provide more and better services with the existing resources resulting in increased user satisfaction and loyalty.

3. TQM is an evolutionary process and can easily be incorporated into the already existing management systems of libraries.

4. Brainstorming exercise helps to know what functions are necessary to the efficient operation of a library and who should perform these, and this leads to increased involvement and dedication of its employees.

5. Reduction in user complaints gain a competitive advantage over other information providers.

6. TQM helps in breaking down intersectional barriers/status in a library and promotes cooperation and teamwork instead of competition.

7. In TQM Quality is a high profile management tool, its implementation in libraries improves the image of library staff and helps in public relations and market.

8. TQM ensures consistent qualitative library and information services to the users and defines user satisfaction issue.

9. TQM ensures a non-threatening environment for open (deals), for problem solving, for change, for HRD and clearly
independent power, responsibility and accountability of each employee.

10. Empowered staff measures develop a sense of self determination, a sense of meaning, a sense of common sense of impact and become more effective, innovative, transformational and charismatic.34

3D3 Barriers to TQM in Libraries:

1. Management/Authority talks about quality, but, in practice, they don’t spend much time or pay attention to it.

2. Every library staff member is possesses requisite qualifications, but they are not efficient in discharging their duties. This is the result of non-scientific selection and recruitment.

3. Management /Authority force more work on the staff, but they don’t provide required staff and ignore suggestions from the staff and readers. Almost all libraries are suffering from inadequate staff.

4. Performance evaluations in library management still don’t include accountability and a reward for quality improvement.

5. Job description/Job specification for different positions or levels of jobs in library is absent. Hence staff do not shoulder responsibility and do not have specific goals for quality.

6. The existing library staff formula, library budget norms are out of date and need to be updated and standardised on the basis of
current technology to achieve quality in library work and library service.

7. Failure of top management to have long-term vision and seeking short-term gains defeats the very purpose.

8. A sense of powerlessness on the part of the seniors by virtue of empowering subordinates. The feeling is that a part of their power is lost.

9. Lack of faith in effectiveness through process changes.

10. Belief in the traditional system.

**3D4 ISO 9000 Quality Systems in Information Centers:***

ISO 9000 quality systems bring various benefits to their users. The primary purpose of an effective quality system is to inspire confidence among customers. An effective quality system helps in:

1. Improving products and services.

2. Increasing efficiency, consistency and better motivated employees.

3. Developing an inventory of the documents available in the library.

4. Improving quality of IA+C (Information Analysis and Consolidation) products.

5. Improving skills of end users to profitably interact with information system and services.
6. Integrating and networking all library resources into serviceable resources to users. And thereby maximizing the utilization of library resources.

7. Reducing user complaints.

8. Efficient utilization of men, machines, materials and time, resulting in higher productivity.

9. Elimination of bottlenecks, promoting good human relations and a tension-free work environment.

10. Providing the means for the personnel to perform their tasks right the first time by providing appropriate resources, training, instructions and the right environment motivation and control.

11. Achieving job satisfaction among employees.

12. Identifying the right tasks and specifying them in a way that will yield the results by advance planning and putting in place procedures, standards and guidelines which help the staff to choose the right things to do.

3D5 Factors to implement TQM:

To implement TQM, the following factors should be considered.

A) Defining Quality: In a library environment, a peculiar excellence or superiority of the library service can be achieved by a good quality management. Therefore to avoid some of the difficulties in defining service quality, teams, departments and individuals need to be assisted
in identifying definitions and measures that are appropriate in their context.

B) Establishing Organizational Culture: The term culture is used in relation to corporate identity which creates a common understanding amongst organizational members concerning the organizations, its mission and how its members should behave. The culture varies depending on the culture of the parent organization. For example in public libraries, the parent organization's culture is public service oriented, in a business context, the culture will be commercially driven and in an academic library, teaching and research will be valued.

C) Defining the role of Administration: In TQM, the administrator becomes a symphony conductor, the TQM modifies current leadership roles at the top, middle and bottom of the administrative hierarchy. The top administrator will do less of the decision making and they delegate their authority to middle level management to manage the culture related problems. The top management has to establish a planning process that is flexible enough to adapt to the propositions that the TQM process develops. Middle management has responsibility for monitoring the process of the TQM and authorizing implementation of the process changes that are identified for improvement of quality.

D) Measuring the quality: The purpose of measuring the quality is to determine the effectiveness, efficiency and value of what have been achieved. This process reveals the strength as well as the weakness of any library or information system. This basic function is rightly called investment for the future.
The following are the different approaches of measuring quality.

Complaints: The level of complaints is one indicator of quality and provides some directions for potential environments. However, absence of dissatisfaction is not necessarily proof of user satisfaction.

Users' survey: The survey can be made with the help of some tools like questionnaire, interview and observation.

Bench Marking: To attain the TQM, the library system has to compare its organization, service and other functions with the other competitors having similar characteristics and features.

Suggestions Boxes: The users of the library should have freedom to indicate their suggestions for the improvement of the library. Suggestions boxes should be provided so that several suggestions can be made for the improvement of the performance of library system.

E) Establishing quality as a strategic issue: The library and information centers should accept the importance of users requirements throughout the parent organization by which continuous improvement can be identified as one of the library's objective, which is vital for the credibility, continuity and longevity of the TQM initiative.

F) Redefining Organizational Structure: Organizational structures can be divided into two main categories: mechanistic and organic. Mechanistic structures include functional bureaucratic structures which tend to be relatively inflexible, with clearly defined levels of authority and decision making that is governed by policies, procedures and rules. Organic structures employ decentralized decision making where by both accountability and responsibility are transferred to as low a level of the organization as effectively possible. The various
different management structures have been explored on the basis of the measuring quality. These structures are particularly ripe for the adoption of a TQM based approach.

G) Empowering the staff to analyze and solve problems:
Empowerment of the staff is one of the hallmarks of the TQM model. The library management must empower the staff to analyze and solve the problems on the basis of data collected by evaluating quality measurement. The people who are in the bottom of the administrative hierarchy are very much in contact with the regular users of the library. So, that is very much necessary to empower the staff to analyze and solve the problems.

3D6 References:


