CHAPTER-I

Introduction

1. Topic of Research

I have selected the topic "Evaluation of library services of non-agricultural university libraries in Maharashtra" (with special reference to Jayakar Library, University of Pune) for the present investigation.

I am working in the Jayakar Library of the University of Pune for the last 15 years and prior to that I was working in a college library for 10 years. During the last decade libraries are changing, the collection is increasing, the number of readers are increasing and lot of money is being spent on the university libraries, on collection development, on the library buildings, on computerization and on salaries of the library staff by the UGC, The State Government and the Universities themselves. On this background questions are always asked whether these libraries provide adequate library services to users and whether users are satisfied with the library services given to them. Questions are also asked whether there are lacunae in the library services given at present and suggestions are made to improve the library services in the resource sharing programmes and networking of university libraries in India.
As library is a service institution it was thought necessary to inquire in a systematic manner into all these aspects of library services given in University libraries in Maharashtra, in order to improve upon the library services given at present.

It was also thought necessary to understand the changing nature of library services to be given in the Internet era. In order to probe these problems I have undertaken this study. It is hoped that this study will benefit me as well as other colleagues in the library profession to make self assessment and to improve upon the library services. As stated by Dr. Arun Nigavekar, Vice-Chancellor of Pune University and Former Director of National Assessment and Accreditation Council, Bangalore (NAAC) in his paper "Understanding assessment and accreditation in higher education" (1), it is my purpose to know the strengths and weaknesses of university libraries in Maharashtra with special reference to Jayakar Library, University of Pune. "The entire stress is on doing better, doing it efficiently to achieve quality that should ultimately lead to excellence. It encourages more of self-appraisal".

2. Definitions

University library:

University library includes the main library, branch library and centres established by the Universities, now a days called library system as in Delhi University Library System.
University:

The University Grants Commission Act, 1956 has defined the term University as follows: "University means a University established or incorporated by or under a Central Act, a Provincial Act or a State Act, and includes any such institution as may, in consultation with the University concerned, be recognised by the Commission in accordance with the regulations made in this behalf under this Act." (2)

An academic institution established for the promotion of higher education such as the degree, Masters degree and post-graduate degree in different disciplines.

Services:

To serve means "to perform duties for" as in to serve one's country. Another meaning is "to attend to customers", in case of libraries, "to readers". Be satisfactory for a need or a purpose. The term service means any system or arrangement that supplies some public need, e.g. a bus service, the telephone service etc. (3)

Library services:

Harrod's (4) Librarians' Glossary defines library service as "the facilities provided by a library for the use of books and dissemination of information".

The scope of this term may be expanded as follows:

Various activities of the library extended to the users of the library for:
1. Fulfilling the routine needs of the users, such as giving membership to the library, homelending service, reading hall service, overnight issue service, interlibrary loan service which are minimum in any university library.

2. Services or activities leading to giving information to the users of the library either on demand or in anticipation of the demand, such as reference service given with the help of ready reference sources and other reference books either on telephone or in person.

3. Documentation service such as Current Awareness service, Selective Dissemination of Information service, alerting service, bibliography service, translation service.

4. Services for Dissemination of Information through the list of additions, current awareness bulletin, abstract or annotation or digests or by exhibitions - display, of books and other materials, lectures, talks organized by the libraries.

5. Document copying and document delivery service - document copying with the help of machines, such as xerox machine, popularly called as xeroxing service.

6. Activities promoting the use of libraries and library collections - such as orientation course in library use and guidance to Ph.D. candidates and publication of guides to library collection or using audio-visual material.
7. Automation and Networking services. Services given to the users, informing about or accessing information sources not available in the library. Activities include online retrieval of information, connectivity to international and national databases and accessing the information through search of the databases to the users. This also include inter library co-operation activities, resource sharing activities, compilation of union catalogues and compilation of bibliographies of library material such as unpublished theses and dissertations, manuscripts, back volumes of periodicals, periodicals currently subscribed and such other documents. Also includes accessing information sources available on Internet.

Evaluation

Harrod's (5) Librarians’ Glossary define evaluation as "the process of measuring the performance of a service or system, and assessing its effectiveness in meeting established objectives."

NAAC has defined the term evaluation as "the process of testing the students knowledge and skill through examining them against present norms." (6)

Whether the services are adequate, effective and fulfill the needs of the users is a constant query made by the library managers. What is the extent of satisfaction received by the user, such questions are to be assessed in the light of the services given.
Higher Education

Dictionary of Education compiled by Good (7) defines higher education as "Instruction offered to persons of considerable intellectual maturity, usually requiring previous preparation through the secondary school: in terms of the institution common to the United States, higher education includes all education above the level of the secondary school given in colleges, universities, graduate schools, professional schools, technical institutes, teachers colleges and normal schools. (The junior college is considered an institution of higher education by some authorities and by other it is considered a part of secondary education.)

Maharashtra

Maharashtra means a state of Maharashtra in the Indian union having jurisdiction as laid down by the constitution of India.

3. University libraries in Maharashtra

The study includes study of libraries of non-agricultural universities in Maharashtra established by the act of the legislature of Maharashtra Government as well as the Maharashtra Universities Act, 1994. To be specific, following university libraries from Maharashtra have been included in this study.
Mumbai
1. Jawaharlal Nehru Library, Mumbai University (formerly Bombay University), Mumbai (estd. 1878)
2. S.N.D.T. Women’s University Library, Mumbai (estd. 1955)

Vidarbha Region
3. Nagpur University Library, Nagpur (estd. 1923)
4. Amravati University Library, Amravati (estd. 1983)

Marathwada Region
5. Dr. Babasaheb Ambedkar Marathwada University Library, Aurangabad (estd. 1958)

Western Maharashtra Region
7. Jaykar Library, University of Pune (formerly University of Poona), Pune (estd. 1950)
Period Covered

With the establishment of University Grants Commission in 1956, University libraries started receiving considerable financial assistance during the various five year plan periods. However for the purpose of this study, the period covered is from 1985 to 1997.

The library computerisation has been started during the last decade and there is fast increase in higher education institutions in Maharashtra during last two decades. Hence the study has been made during VII, VIII and IXth plan period.

4. Research Methodology

Survey method is the best method to know the present situation of the topic for research. Hence the survey has been undertaken with the help of questionnaire designed for this purpose. (given in Appendix 1) As the data received from the questionnaire was inadequate, the researcher visited the libraries and collected data for this purpose from variety of documents and in person. In addition, the librarians and library staff members of these universities have been interviewed.

Historical method -

In order to understand the background of each university library, information sources relating to the history and the development of libraries such as annual report, statistics, records maintained by the libraries have been utilized, some of documents generated by University Grants Commission have been consulted.
A separate questionnaire (given in Appendix 2) was designed for receiving feedback from the users of the Jayakar Library. Some of the users were interviewed in person. This feedback has facilitated me to find out strengths and weaknesses of the Jayakar Library.

5. **Aims and Objectives of the study**

1. To study the growth, development and working of the libraries of non-agricultural universities in Maharashtra, upto 1997.

2. To study the efforts made by these libraries to develop the infrastructure facilities and for collection development for extending adequate and effective library services.

3. To compile data regarding the Basic Library services and Readers' Advisory Services given by these libraries.

4. To study the information products generated by the university libraries for the use of the readers.

5. To study the problems faced by the university libraries in giving these services and to find out lacunae in the present system.

6. To study the attempts made for inter-library cooperation and resources sharing.

7. To study the efforts made by these university libraries for computerization of their libraries and its impact on giving library services.
8. To find out the strengths and weaknesses of the library services provided by the Jayakar Library, University of Pune and to suggest measures to improve upon the library services.

9. To describe the programme of National Assessment and Accreditation Council for Accreditation of Universities in India with special reference to University Libraries.

10. To suggest a future plan for augmenting library services using Internet resources with special reference to Jayakar Library.

Limitations of the study

This study is based on the data collected by the researcher. While collecting the data, it is observed that some data relevant for the research is not available. For example, data regarding the use of non-textbooks/prescribed reference books by the students is not available in any of the university libraries. Similarly, data regarding reference queries answered/not answered is not available. Detailed reports regarding the working of the Libraries are also not available for the period covered by this study for all the University Libraries. University libraries have not attempted to assess their library services in a systematic manner, a sort of self-appraisal. Hence, it has become difficult to evaluate/assess library services with the various indicators useful for evaluation/assessment. However, an attempt has been made to describe the strengths and weaknesses of these university libraries in spite of financial and staff difficulties faced by the libraries.
6. **Chapterwise Summary** (Outline of the study)

There are nine non-agricultural universities in Maharashtra. The libraries of all the universities are playing a vital role in the development of higher education and research. These libraries are providing different types of services to their users. These are covered by this study.

The study has been organised in seven chapters. Chapter one covers purpose of the selection of the topic, overview of the education in India, role of university libraries in higher education and the role of University Grants Commission in strengthening university libraries. The objectives of higher education have been stated. Review of literature covers forty studies outside India, eight studies from India and twenty-six studies relating to Jayakar Library, University of Pune. The aims and objectives are discussed in this chapter, research methodology used for the study and outline of the study has been given.

Chapter two traces the growth and development of libraries of non-agricultural universities in Maharashtra up to 1997 laying down firm foundation of these libraries.

Chapter three deals with basic Library Services. Library Services are grouped under two broad categories i.e. (a) Basic Library Services and (b) Reader's Advisory Services. The basic library services include circulation service, reading room service, home lending service, inter-library loan service, document delivery service. The indicators for performance measurement have been suggested to assess each service.
Chapter four deals with Reader’s Advisory Services which include reference service, documentation service, guidance to the user of the library, Current Awareness Service, Selective Dissemination of Information service, Bibliographical service, services provided for two or more campuses, services to university departments, services regarding manuscripts, services provided to industries, translation service. Services to university authorities and extension services.

Chapter five deals with University Library services in Internet era. Challenges and visions faced by university education in 21st Century as predicted by eminent educationists have been presented. With this background academic libraries in Internet era are described. In order to prepare for this future, efforts made to computerize the libraries in Maharashtra have been described. Estimates of library services that can be generated have been presented. Contributions of UGC, INFLIBNET, etc. are described. Development of Metropolitan Library Networks in Maharashtra are discussed.

In Chapter six, an assessment is made of the Library Services given by the Jayakar Library based on questionnaire distributed to students, readers, teachers and research scholars for this purpose. An attempt has been made to find out strengths and weaknesses of the Jayakar Library services. Based on this analysis, suggestions have been made to improve the library services of the Jayakar Library, a sort of self-appraisal, to do better. Rationale and guidelines for assessing the University Library Services as framed by NAAC have been described. A resume is also given about the concept of Total Quality Management in library setting.
The seventh chapter includes findings of the study and suggestions for improvement of library services. A plan has been submitted to augment the Jayakar library services using Internet resources. Areas for further studies and research have been identified.

7. **Goals of higher education and the role of libraries**

Good (8) defines 'education' as "the aggregate of all the processes by means of which a person develops abilities, attitudes and other forms of behavior of positive values in the society in which he lives".

Education helps human being in developing all his faculties and enables him to receive knowledge. Hence the need for education is universal in all the ages.

Education is of two types, viz. formal and informal. Primary, Secondary and higher education are the three important phases in the process of formal education. Higher education is at the apex of educational hierarchy. Secondary education is followed by the higher education. One gets the degree of the recognised university after completion of any course included in higher education programme. Encyclopedia Britannica (9) defines higher education as:

"any of various types of education given in post secondary institutions of learning and usually affording at the end of a course of study, a named degree or certificate."
The basic purpose of higher education is of instruction, research and public service along with preservation, transmission and advancement of knowledge. Knowledge for its own sake and its utilisation are important aspects of higher education. Moreover, the fundamental objective of higher education emphasises on the practical goal of the development of individual talents for the service to others.

Higher education comprises mainly college education and university education. The university education emphasises upon research. Herein lies the difference between the two. Apart from the foregoing general objectives of the university education, university being an institution of higher education aims primarily at promotion of higher education and catering to the needs of those who are interested in higher education. University curricula and research programmes change in their structure and content from time to time according to the environmental changes, such as social, economic, cultural, technological, etc. Nevertheless, the function follow the consistent pattern.

Wilson and Tauber (10) describe the functions of the university education as:

1. Conservation of knowledge and ideas - Universities have conserved the heritage of the past. It does it through its libraries, laboratories and museums. Conserved knowledge in the library plays an important role in the education and the development of human being.
2. Teaching - Ideas conserved are conveyed to others. They are revitalized. They are put to use in the educational process of youth who are future citizens.

3. Research - Students work independently. They are guided and trained in such a manner that they develop the habit of expanding their knowledge through research. Teachers are also engaged in research activities.

4. Publications - What is searched is reported to the society through publications.

5. Extension and service - Universities serve as a leader. It undertakes research projects which try to solve social problems.

6. Interpretations - Research results are made available to the public. They are interpreted to the society by the faculties and research scholars. Thus, university education, in the process of developing the future, aims at the discovery, dissemination and interpretation of knowledge.

India is having a rich heritage of education and research since time immemorial. However, university education started with the establishment of three universities at Bombay, Madras and Calcutta in 1857. After independence the entire system of education has been reshaped according to the contemporary needs. Universities grew in number. There are 13 Central Universities, 152 State Universities, 7 Open Universities,
28 Institutions Deemed to be Universities, 4 Institutions established through State legislation, 9703 Colleges in India as per UGC Report for the year 1996-97. (11)

The University Education Commission (1948-49) appointed under the chairmanship of Dr. Radhakrishnan, was a landmark in the history of education in India. The aims and objectives of 'university education' have been enumerated in detail by this Commission (12). Relevant ones are:

1. To prepare an individual for particular vocation and also for citizenship in democratic community.

2. To guide for the realisation of potentialities of each individual in the face of actual world of men and things.

3. To enhance the personal quality of its members and to make them seek the good life.

4. To conserve and advance the learning.

5. To provide a coherent picture of the universe and integrated way of life.

6. To provide for the study of different aspects of international affairs, problems and solution to these problems.
7. To retain the cultural dynamism and heritage.

8. To provide for leadership in politics, administration, profession, industry and commerce.

9. To pay attention to the both mental as well as physical development of student.

10. To develop student spiritually.

11. To provide for professional education to satisfy occupational needs of our society.

12. To protect the ideas of democracy i.e. social justice, liberty, equality and fraternity, and to infuse these ideals into the youth.

To sum up, the aims of the university education as spelt out by the Commission pertain to the individual's all sided development which will ultimately lead to the building and development of the nation.
8. Objectives of the University

Pandit Jawaharlal Nehru, in his convocation address to the University of Allahabad in 1947 summed up the objectives of the university and its role in national life in the following words.

"A university stands for humanism, for tolerance, for reason, for the adventure of ideas, and for the search of truth. It stands for the onwards march of the human race towards higher objectives. If the universities discharge their duties adequately, then it is well with the nation and the people." (13)

The Education Commission appointed by Government of India 1964-66 (Chairman D.S Kothari) (14) has stipulated the following functions of higher education:

1. 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.

2. To provide the right kind of leadership in all walks of life, to identify gifted youth and help them to develop their potential to the full by cultivating physical fitness, developing the powers of the mind and cultivating right interests, attitudes and moral intellectual values.
3. To provide society with competent men and women trained in agriculture, arts, medicine, science and technology and various other professions who will also be cultivated individuals, imbued with a sense of social purpose;

4. To strive to promote quality and social justice and to reduce social and cultural differences through diffusion of education; and

5. To foster in the teachers and students and through them in society generally, the attitudes and values needed for developing the “good life” in individual and society.

**University and the library**

A university is a community where research scholars and teachers are head, students are the body and the library is a heart. A primary aim of the university education is to cater to the needs of those who are interested in higher education and who want to develop their knowledge in the interest of nation and society.

*Dictionary of Education* by Good (15) 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.”
Prof Ashworth (16) while expressing his thoughts regarding university and its library said “the real importance of libraries in education is that they are places where one finds out and where one learns how to find out ... it is essential to education that everyone is brought into contact with a good library throughout his whole period of tuition that he is taught to until it becomes second nature to him to do so and that he carries these characteristics through with him into later life“

The primary necessity for a university is a good library with good balanced and adequate collection which can satisfy the needs of the university faculties and research scholars, and post graduate students. A university is rated mostly by its library. No university can develop effective work, research programme or academic development without a strong library.

Paul Buck (17) said while stressing the role of the university library that :

1. The library is the heart of education. Every educational advancement depends upon its resources in proportion to the potential of the library to respond.
2. The method and fashion in educational field change from generation to generation, but each generation uses the library as a means of realising its aims, hence the library remains a great conversation of learning. An investment in a library is permanent investment guaranteeing returns for centuries to come.
3. A quality education is impossible without a quality library.
4. You can not have a quality faculty without a quality library.
5. A library is vital and proper exploitation of our intellectual resources.

6. The library is essential for the maintenance of free access to ideas and to the functioning of untrammelled mind, through control will never be successful so long as books are freely and widely available, hence the laboratory can never take the place of library.

In India, after independence almost all universities started functioning alongwith their libraries with a view to providing the students with more food for their intellect and with modern education. The Radhakrishnan Commission has observed that the library is the heart of all the universities work, directly so, as regards its research work, and indirectly as regards its educational work which derives its life from research work.

The Kothari Commission (18) clearly defines the functions of university library, the agency to fulfil the objectives of university education as under:

The library should:

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

In the light of this, the functions of the modern university library can be described as:

1. To take the leadership for advancement of knowledge by research.
2. To assist the educants of higher education by incessant delivery of documents required by the respective groups.
3. To cultivate and develop the reading habits of the students.
4. To provide recent data in every discipline.
5. To provide auxiliary services namely - reprography, translation etc.
6. To encourage sharing of resources with other libraries of towns, district, state, nation or world

These functions can clearly be categorised as archival functions, control and service functions, co-operational functions, research and development functions and publication functions.

9. SPREAD OF EDUCATION IN MAHARASHTRA

(Erstwhile Bombay Presidency)

After the Charter Act of 1813 the British introduced the system of formal education in India and a number of schools were opened in the Bombay Presidency. In
April 1840 the Government of Bombay decided to constitute one agency for the management of all the institutions for the education of Indians and establish a Board of Education, consisting of seven members. This Board of Education continued to function till 1855 when the first Director of Public Instruction took over the charge. (19) Thereafter the number of schools and the pupils enrolled increased. For example 1,06,040 pupils were enrolled in 2875 educational institutions in the Bombay Presidency upto 1855-56.

Table - 1

Spread of education in Maharashtra (Erstwhile Bombay Presidency.)

<table>
<thead>
<tr>
<th>Institutions</th>
<th>No. of institutions</th>
<th>No. of pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Art Colleges</td>
<td>2</td>
<td>103</td>
</tr>
<tr>
<td>2. Professional colleges and schools</td>
<td>7</td>
<td>311</td>
</tr>
<tr>
<td>3. Secondary Schools</td>
<td>30</td>
<td>3578</td>
</tr>
<tr>
<td>4. Primary Schools</td>
<td>256</td>
<td>20011</td>
</tr>
<tr>
<td>5. Indigenous Schools(aided)</td>
<td>Nil</td>
<td>-</td>
</tr>
<tr>
<td>6. Training Schools &amp; colleges</td>
<td>5</td>
<td>76</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td><strong>24,079</strong></td>
</tr>
</tbody>
</table>

**Unrecognised**

<table>
<thead>
<tr>
<th>Institutions</th>
<th>No. of institutions</th>
<th>No. of pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Secondary schools and primary schools</td>
<td>188</td>
<td>11,447</td>
</tr>
<tr>
<td>2. Indigenous schools</td>
<td>2,387</td>
<td>70,514</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,575</strong></td>
<td><strong>81,961</strong></td>
</tr>
</tbody>
</table>

**Grand Total**

| **Grand Total** | **2,875** | **1,06,040** |
Thereafter there was expansion of education in India. With the establishment of the University of Bombay in 1857, colleges were started which marked the beginning of higher education in the Bombay Presidency. Grants-in-aid were given to privately management institutions and therefore the number of institutions managed by private bodies. In this way there was rapid increase in the number of educated Indians and also the number of educational institutions as follows:

**Table - 2**

General educational progress

<table>
<thead>
<tr>
<th>Institutions</th>
<th>1870-71</th>
<th>1901-02</th>
<th>1921-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arts Colleges</td>
<td>5</td>
<td>(297)</td>
<td>10</td>
</tr>
<tr>
<td>2. Professional Colleges and Schools</td>
<td>6</td>
<td>(612)</td>
<td>5</td>
</tr>
<tr>
<td>3. Secondary schools</td>
<td>209</td>
<td>(15527)</td>
<td>494</td>
</tr>
<tr>
<td>4. Primary schools</td>
<td>2743</td>
<td>(159683)</td>
<td>8987</td>
</tr>
<tr>
<td>5. Training schools</td>
<td>9</td>
<td>(490)</td>
<td>17</td>
</tr>
<tr>
<td>Other special schools</td>
<td>-</td>
<td>35</td>
<td>(3179)</td>
</tr>
<tr>
<td>Total</td>
<td>2972</td>
<td>(176609)</td>
<td>9548</td>
</tr>
<tr>
<td>Unrecognised institutions</td>
<td>3162</td>
<td>(89184)</td>
<td>2703</td>
</tr>
<tr>
<td>Grand Total</td>
<td>6134</td>
<td>(265793)</td>
<td>12251</td>
</tr>
</tbody>
</table>
SPREAD OF HIGHER EDUCATION AFTER INDEPENDENCE

With the establishment of University Grants Commission by an act of the Parliament of India in 1953, impetus was given to establish new universities, colleges and other institutions of higher learning in India for the development of higher education. Financial assistance of a recurring nature was required to maintain the standards of higher education.

The UGC in its programme tried to give financial assistance for the development of the universities, colleges and other research institutions in India. With the result that these institutions got buildings, libraries fed with latest books, journals, laboratories with necessary equipments and teachers with increased salaries and status. All these programmes created atmosphere for development of higher education in India and particularly in Maharashtra.

DEVELOPMENT OF UNIVERSITIES AND COLLEGES UPTO 1996

The UGC being the apex body in the field of higher education in India has been collecting statistics about the features of higher education institutions in India. This statistics is systematically compiled and published in a form of an annual publication University education in India facts and figures. The latest issue of this publication 1995 contains the following statistics about education in Maharashtra.
As this statistics relates to the years 1995-96, an attempt has been made to collect up-to-date statistics from different sources and also from the respected universities of Maharashtra by sending the questionnaire.

**SPREAD OF EDUCATION FROM 1857 TO 1995-96.**

After the independence, education was spread to district places, taluka places and even big towns throughout in Maharashtra/Bombay State. The following statement will indicate the nature of growth of university education in Bombay State/ Maharashtra.

**Table -3**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>University</th>
<th>year of est.</th>
<th>Colleges</th>
<th>Recogn inst.</th>
<th>Data year</th>
<th>Student enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mumbai University</td>
<td>1857</td>
<td>283</td>
<td>69</td>
<td>1997</td>
<td>2,63,715</td>
</tr>
<tr>
<td>2</td>
<td>Nagpur University</td>
<td>1923</td>
<td>272 +4*</td>
<td>-</td>
<td>1997</td>
<td>2,75,000</td>
</tr>
<tr>
<td>3</td>
<td>S.N.D.T Women's University</td>
<td>1955</td>
<td>23 +12*</td>
<td>-</td>
<td>1993</td>
<td>30,250</td>
</tr>
<tr>
<td>4</td>
<td>Pune University</td>
<td>1949</td>
<td>216</td>
<td>120</td>
<td>1997</td>
<td>2,17,955</td>
</tr>
<tr>
<td>5</td>
<td>Dr.B.A Marathwada University</td>
<td>1958</td>
<td>118</td>
<td>-</td>
<td>1997</td>
<td>87,973</td>
</tr>
<tr>
<td>6</td>
<td>Shivaji University</td>
<td>1962</td>
<td>227</td>
<td>-</td>
<td>1997</td>
<td>1,67,205</td>
</tr>
<tr>
<td>7</td>
<td>Amravati University</td>
<td>1983</td>
<td>180</td>
<td>-</td>
<td>1997</td>
<td>79,152</td>
</tr>
<tr>
<td>8</td>
<td>North Maharashtra University</td>
<td>1990</td>
<td>114</td>
<td>19</td>
<td>1997</td>
<td>50,580</td>
</tr>
<tr>
<td>9</td>
<td>Swami Ramanand Teerth Marathwada University</td>
<td>1994</td>
<td>98</td>
<td>-</td>
<td>1997</td>
<td>49,887</td>
</tr>
</tbody>
</table>

* Colleges run by the University

Note: This data has been collected from Annual Reports of respective Universities.
The university system has important responsibilities to the society as a whole as well as to the educational system itself. The significance of the traditional functions, of acquisition, preservation, dissemination and extension of the frontier of knowledge, the balanced education of individuals, and the training of high level personnel for all walks of life is obvious. But a modern university, especially in a developing country like ours, has to undertake several other functions as well, it must for instance:

1. Inculcate and promote basic human values and the capacity to choose between alternate value systems:

2. Preserve and foster our great cultural traditions and blend them with essential elements from other cultures and peoples.

3. Promote a rational outlook and scientific temper.

4. Enrich the Indian Languages and promote their use as important means of communication, national development and unity.

5. Promote the development of the total personality of the students and inculcate in them a commitment to society through involvement in national service programmes.
6. Act as an objective critic of society and assist in the formulation of national objectives and programmes for their realization.

7. Promote commitment to the pursuit of excellence;

8. Promote the development of science and technology and of an indigenous capability to apply it effectively with special emphasis on national problems and above all.

9. Contribute to the improvement of the entire educational system so as to subserve the community.

10. ROLE OF THE UGC IN HIGHER EDUCATION

The coordination and maintenance of standards in institutions of higher education and research is a central responsibility. The UGC has been created by an Act of Parliament to look after this responsibility and empowered to take "in consultation with the universities and other bodies concerned, all such steps as it may think fit for the promotion and coordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities" (Section 12 of UGC Act) (20).

To discharge this responsibility adequately, the UGC has to assume several roles and functions. (21)
1. It has a major role of **providing leadership and impetus for reforms and development.** Towards this purpose, the commission must continuously review the emerging problems of education, the status of teaching and research in different disciplines and standards of teaching and research in the universities. It should through its committees and panels and other means evolve a consensus within the academic community regarding desirable changes in higher education.

2. It is the responsibility of the UGC to **strive to provide leadership to the entire educational system and assist it to bring about the needed transformation.** This can be done by encouraging the universities to play in increasingly active role in improving the quality of education in colleges and schools, by intensifying the R & D effort in education and by promoting the philosophy of extension whereby teaching, research, services of the community and the building of character become an integral activity.

3. The UGC has to play an **increasing role in promotion of high quality research in universities** because of the symbiotic relationship between teaching and research. At the same time it must promote applied research which has an immediate impact on the social and economic condition of the people.

4. The UGC should **strive to remove regional imbalances in development of higher education** in different part of the country and to relate such development to
the programmes of socio-economic advance and cultural growth of the people in the various region.

5. The UGC should actively promote through the creation of an appropriate pattern of recognition and appreciation, the maintenance of value in the academic community so that its commitment to the pursuit of truth and excellence is enhanced and it is enabled better to discharge its responsibilities to society.

6. The leadership and catalytic role of the UGC has to be supported by the creation of appropriate organization at the university and State levels. These should include a mechanism for surveys of undergraduate colleges in relation to well defined norms and guidelines so as to ensure that further proliferation of sub-viable colleges is arrested, and for similar surveys of post-graduate colleges so as to ensure that they satisfy the UGC norms and maintain certain minimum standards. It would also be necessary for the UGC to persuade the universities to establish academic planning, evaluation and implementation Board to look after the PG and Research programmes in long term perspective and College Development Council to advise and guide the colleges to improve their academic standards with the help of various UGC schemes.
11. Review of Literature

The measurement of library performance has been discussed in the literature over the last twenty-five years. An excellent review of the major writings was compiled by Goodall (1987) (22). Goodall considers the work of Morse (1968) (23) to be the pioneering work on library effectiveness. What is most significant about this book is the concept of looking at outputs as well as inputs to measure performance. Unfortunately, Morse's approach is highly mathematical in nature and was not widely applied by the library community. Soon after the publication of Morse's book, King and Bryant (1971) (24) produced a textbook on the evaluation of information services and products. This concentrated on document transfer systems and covered all the functions and process necessary to transfer documents from authors to users. King and Bryant drew upon techniques of operations research and statistics to develop both micro- and micro-level evaluation measures and methods. Micro-level evaluation deals with the organisational aspects of such systems and includes user assessment of system performance. The book is easy to follow and includes tutorials on statistical methods, user surveys and market research, and experimental design. It therefore differed from Morse's more theoretical treatment of performance measurement by offering some very practical techniques for such measurement.

Unfortunately the book was not adopted by the library community, probably because it was viewed as a reflection of the general interest at that time in information storage and retrieval system.
In 1997 the American Library Association published the results of a Public Library Association study (deProspo et al. 1973). Based on an extensive review of previous efforts to determine library effectiveness and performance, and on an analysis of existing library statistics gathered at the federal, state and local levels. The report recommended a new approach to public library measurement and evaluation: the measurement of the outputs of a library and of library services. The report demonstrated that it is possible to gather data that describe the services a library provides to its users. Furthermore, the report outlines five criteria for selecting meaningful indicators:

- data collection must be amenable to the use of sampling techniques
- the measurement criteria must differentiate between libraries
- the measurement tests, while objectively based, should be constructed in a manner suitable for interpretation by practising librarians
- data collected should provide administration with a tool for internal management and decision-making.

Following publication of the Performance Measures Report, two statewide projects in the US were initiated to test the measures (Clark 1976; Powell 1976) (25). Both projects (in New Jersey and Illinois) recommended changes in procedures for gathering data and suggested additional measures. Several other adaptions of the original Performance Measures reports were reported (Ramsden 1978). (26)

Academic Librarians have also shown concern for library outputs, although it was not until the mid-1970s that a movement to study library users and uses began to build in
the academic library environment. Issues and concerns voiced at the 1976 Conference on Resource Sharing in Libraries, as stated by Kent and Galvin (1977), included as priorities:

- The study of use of collection and relationship to cost.
- Study of user requests, user demand, user needs.
- Research on attitude adjustment of users, librarians, and administrators.

The Pittsburgh conference acted as a catalyst in bringing to the attention of academic librarians the need for better and more relevant performance criteria and measures. Soon after, the Committee on ARL (Association of Research Libraries) statistics began to explore the use of performance measures in academic and research libraries. With funding from ARL, Kantor (28) developed four performance measures for academic and research libraries. These measures were tested by several ARL libraries and a manual for implementing the measures was produced by Kantor (1984). Unfortunately, not much has been formally documented on its application in practice.

Knightly (1979) identifies four different classes of evaluation relevant to libraries: inputs (resources), processes (capability), outputs (utilization), and impacts (benefits). Knightly surveyed managers in sixty-two academic, public, and special libraries to determine the extent to which the performance criteria proposed in the literature were actually in use and to develop guidelines for future criteria selection. Seven types of performance criteria were described, including assessment on the basis of user opinion, expert opinion, ideal standards, comparison with other organizations, quantifiable outputs, quantifiable processes, and cost or unit cost. The study found that nearly 60%
of the performance criteria cited in the annual reports of libraries were quantifiable, with about half concerning process evaluation and half concerning output evaluation.

In parallel with the above developments in approaches to library performance and effectiveness evaluation, there was also a trend away from the use of national standards for library service towards local determination of library needs. Criticisms of the traditional library standards used up to that time were:

- they focussed on library inputs rather than on the services that resulted.
- they were used both as minimum standards and as levels of excellence.
- they had no empirical base.
- they imposed an inappropriate uniformity on public libraries.

In 1978 the prevailing thought regarding public library performance measurement was that public libraries should use a community-based planning process to determine local needs for service. In July 1981 **King Research Inc.** was awarded a contract by the ALA to develop such a process and a manual for use by librarians at the local level. The manual (Palmour et al. 1980) recommends the measurement of output both as a part of the data gathering that precedes the setting of goals and objectives, and as essential to providing a baseline against which progress towards the objectives can be assessed.

Soon after the publication of the Planning process for Public Libraries the Public Library Association Goals Guidelines and Standards Committee decided to produce a
‘how-to’ guide to public library performance measurement. The Committee assembled a set of output measures from the Planning Process and other relevant documents and from the experience of its members. The objective of the exercise was to provide the public library profession with consistent methods of collecting output data. The manual (Zweizig and Rodger 1982) (30) and standard contains procedures for collecting and reporting results on twelve output measures. These measures were selected after field testing in five public libraries because they relate to commonly occurring goals of public libraries, data can be collected with relatively little effort, they can be easily interpreted for the community. For each of the measures a brief conceptual explanation is given, followed by procedures for collecting the data. An example and a discussion of how the result may be interpreted and improved is also provided. This manual became the major performance measurement tool for public libraries in the United States. Planning Process and Output Measures manuals have been updated (McClure et al. 1987; Van House et al. 1987) (31) (32) The main difference between the new editions and the original editions is the addition of two further considerations in planning and evaluation. The first is the role of the public library in the community it is intended to serve. This concept was introduced in the original planning process but was not dealt with in detail and particularly not in terms of the multiplicity of roles that public libraries seemed to be adopting. The concept of library roles was based on observations that public libraries were trying to be all the levels of service desired. It was further recommended that libraries select a subset of roles upon which they would focus their efforts.

The manuals also stated the desirability of providing comparative data. Users of the original manuals would find it difficult to know whether they were performing better
or worse than others. The Public Library Data Service was established to collect and make accessible a selective set of data from public libraries in the United States. Meanwhile Moore (1989) (33) prepared an extended version of these measures for the international library community, and Walter (1992) (34) described output measures for public library service to children.

Subsequent to the development of output measures and the production of several manuals, the general literature reflected the concentration on satisfying user needs. This paralleled the concept of the ‘user-friendly’ system. Chweh (1981) (35) received the criteria that 209 library users indicated as the ten most important criteria in judging a ‘good’ library. The sample of library users was drawn from public, academic and school libraries in the Los Angeles area. A total of 1249 different criteria were identified. Chweh ranked the criteria and determined that the ten highest ranked were:

1. Availability of books.
2. Availability of periodicals.
3. Quality of reference service.
5. Keeping the library quiet.
6. Integrity of the catalogue.
7. Friendly service.
8. Copying facilities.
From this analysis a model questionnaire for evaluating library service was proposed. Unfortunately the results are not presented by users of each type of library separately as it is likely that different sets of criteria would emerge. The model questionnaire could then be made even more relevant to the specific type of environment to be evaluated.

A different approach to the library evaluation was taken by Hannabuss (1983). (36) He explores the relationship between the perceived 'value' of a library and the 'marketing' of library services. The article discusses a number of concepts related to value assessments such as effectiveness, efficiency, benefits, cost benefits and cost-effectiveness. The most interesting aspect of Hannabuss's paper is its recognition that evaluation and promotion are two interrelated functions.

The usefulness of the concept of user satisfaction as a measure of public library performance was explored by D'Elia and Walsh (1983) (37). User satisfaction was viewed as a subjective indicator of public library performance. It had been used in three different ways:

- to evaluate the performance of various services within a library
- to measure a given library's overall level of performance
- to compare this level of performance with those reported for other libraries.

This paper reported the results of a survey of 623 patrons of a public library as follows:
1. The construct of user satisfaction is potentially useful for evaluating the performances of services within a library.

2. Since user satisfaction is influenced by the demographic characteristics of the users, it should not be used to compare presumed levels of performance for libraries serving different communities.

3. User satisfaction is not related to the user's degree of use (a result contradicted by subsequent King Research studies in all types of libraries).

In response to an interest on the part of librarians in identifying techniques to use in evaluation of library services, Lancaster (1977) prepared a basic text that would support library school course on library evaluation. Lancaster sets forth a framework for describing library operations and services. The book focuses on a review and synthesis of the literature to date. In 1988 Lancaster published a complimentary book which was intended as a practical guide to the conduct of evaluation within libraries. A second edition of If you want to Evaluate Your Library was published in 1993 and included a new chapter on evaluation of bibliographic instruction and an expansion of cost effectiveness, cost benefit evaluation and resource-sharing.

In 1990 and 1991, Griffiths and King prepared two manuals. The Keys to Success Manual (1990) prepared for the British Library Research and Development Department, defines in detail a process by which performance, effectiveness, cost-
effectiveness and impact indicators can be developed for library and information services. A conceptual framework is presented and examples of measures indicators and models are developed based on data collected from a number of UK public libraries. The manual also includes a discussion of each measure and indicator, how they can be interpreted and how they can be presented to management, funders and users. The AGARD MANUAL (Griffiths and King 1991), in contrast, focuses much more on the underlying evaluation methods. There are three major distinctions between the approach developed by Griffiths and King and other prior work. The first is the comprehensiveness of their approach: it addresses inputs, outputs and various levels of outcomes. Second, it recognizes that measures of inputs, outputs and outcomes cannot be considered in isolation from each other. Third, by developing a process for performance measure and indicator development they provide a tool that can be used by libraries of all types to address both current and future services.

This Keys to Success manual was evaluated by Bloor (1991) to determine the extent to which the methods, measures and indicators described therein could be applied in practice and whether they could be incorporated into a decision support system for libraries. This study included:

- Keys to success can provide a simple and effective means of analysing library data. The manual’s calculations are straightforwarded and the results easy to understand. This means it can be used constructively at all levels, providing useful information for decision-making within the library, and also for
communicating with the people that it serves and those responsible for its funding. Because the main principles of the manual are general, it is relevant to academic and other types of libraries as well as public libraries.

The measures and performance indicators described in the manual offer a framework for collecting and analysing data about how far it is meeting the needs of the people it was set up to serve. Since the Keys to Success framework was considered a useful part of a library decision support system, it was integrated into operational decision support systems for academic libraries, further developed by Adams et al. (1993) (42).

In 1992 Griffiths and King received a Special Libraries Association research grant to summarize evidence derived from twenty-seven independent studies performed over a ten year period. It includes over 10,000 survey responses. The book provides measures of library service performance e.g. productivity, unit costs etc. and effectiveness e.g. indicators of the extent to which services attributes and other factors affect service use. The book also presents evidence of the usefulness, value and impact of information and of the contribution that corporate and government libraries make to benefits gained from use of its services. It also clearly documents the benefits gained from the use of recorded information and the substantially greater benefits gained from information provided by libraries.

References cited are not consulted in original by me except F.W.Lancaster “If you want to evaluate your library, 1993. (44) F.W. Lancaster has reviewed evaluation literature in his book “The measurement and Evaluation of Library Services” (1977) (45) This book is more practical to be used as a text in teaching the subject and to guide librarians in the selection of evaluation procedures to apply in their own institutions.

His book “If you want to evaluate your library..” is a comprehensive book on overall library evaluation. He has given many examples and data he collected for evaluating the library services, use of library, resource sharing programme, catalogue use, evaluation of library collection etc.

The references consulted by me are reviewed herewith in detail.

Leon Carnovsky (1959) (46) expressed that evaluation of library services is an extremely complex question. Standards for the Public Library were presented in 1943 and reconsidered in 1956. He had considered the attention to book collections, personnel, finance and library use. Certain standards have been suggested for public libraries, based on the population served. American Library Association (ALA) suggested a minimum size of 6000 volumes for public library in 1943. while evaluating the book collection in
an academic library he suggested that library may be evaluated by the use of a checklist. Evaluating library personnel, it should be evaluated by the quality of staff. Apart from the direct consideration of library personnel, library surveys have laid considerable stress on certain matters of personnel administration. He had raised the major problem confronting the person conducting the survey is that determining what qualities are necessary in the good librarian.

While evaluating finance in U.S. any community whose library spent less than $1.00 per capita was not providing adequate support. This figure was accepted in the 1943 standards, the revision was made in 1948 to $1.50, $2.25 and $3.00, but the changes were made in recognition of the decline in the purchasing power of the dollar.

As Luther H. Evans expressed that What may be thought of as a good library in one country may not be so in another.

Lastly he suggested each librarian must decide the proper goals for his library based on his potential readers, their needs and desires, any evaluation must proceed in the light of such goals and select a better tools and measuring instruments to permit the librarian to gauge the extent to which they are being achieved. Richard L. Meier (1961) (47) conducted a survey of faculty members and students who are a members of the university library. The survey was made of the time the university staff lost getting to materials in the largest single collection in the university library, comprising more than a million volumes. He had calculated student time-cost which comes to about $0.25. He
also observed that the time required for students to obtain a desired title, once inside the library was 7-8 minutes, including the time lost in unsuccessful attempts.

Obert B. Downs and John W. Heussman (1970) (48) had given standards for University Libraries. These tables have been obtained on behalf of the Association of Research Libraries. They trace the urgent need for "developing University library standards is that any failure on our part to take action will result in having the job taken away from us". The Canadian Association of College and University Libraries in 1965 issued a Guide to Canadian University Library Standards and in 1967 a sub-committee of the British Standing Conference on National and University Libraries issued a statement on standards for University libraries. The following table have been given as standards for university libraries.

**Table -4**

| Finances: Total Library Budget, 1968-69; Average Annual Expenditures, 1965-68 |
|---|---|---|---|---|
| No of libs. | Total amount | Average | Range low | Range High |
| Library Budget 968-69 | 50 | 147,464,633 | 2,949,293 | 970,835 | 8,500,000 |
| Library expenditures, 1967-68 | 50 | 141,256,935 | 2,825,179 | 1,213,743 | 8,545,393 |
| Average annul lib. expenditure 1965-68 | 50 | 122,076,147 | 2,441,523 | 1,055,368 | 7,605,880 |

In this paper they had given different tables which present data obtained on behalf of the Association of Research Libraries. They have given the tables on student per capita expenditure for books, periodicals, binding and total library expenditures etc.
The Joint Committee agreed to develop a series of criteria for excellence for university libraries based on the best current practices. The criteria should be drawn from the facts collected from the leading American University Libraries. They said that the data may assist the librarian in determining the proper distribution of his budget. But these standards are not applicable at all for Indian University libraries because of the financial support from the management of the institutions and Government.

Morris Hamburg, Leonard E. Ramist and R.W. Bommer (1972) (49) had expressed the need for optimal allocations of limited funds, it is necessary for libraries to develop measures of output. They have discussed various forms of user exposure for public libraries. They have suggested that the accrual method of accounting be used to compare such measures with costs.

Edward Evans, Harold Borko and Patricia Ferguson (1972) (50) had taken the review of criteria used to measure library effectiveness. This is a report on a literature survey which was part of a study undertaken for the National Library of Medicine, in 1970. They have reviewed of over five hundred articles, books and abstracts. They observed that these measures were not unique. They have suggested criteria concepts for evaluating library effectiveness, for example, accessibility of material, cost, user satisfaction, response time, cost benefit ratio and use of material.
They have described each criteria in detail. While describing the costs factor they have warned the librarian that cost figures should not be used to evaluate library, they are useful in determining the efficiency of some operation. They also admitted that the value of service is difficult to measure and high unit cost figure may create problems in demonstrating the desirability of such services.

Measuring the user satisfaction they have made two distinct sub groups to be considered 1) User satisfaction with existing services and materials and 2) user needs for services and materials not presently available. While discussing the cost benefits analysis, it could be considered at least in theory, as the sole criteria of library performance but in practice, this would be possible only if a large number of different benefits were considered (for example, cost accessibility, cost/use, cost/user satisfaction, cost/response time).

Another approach to partially evaluating the collection and the library on the basis of use is to analyse reference questions asked, whether answered or unanswered. Such approach will clearly define the active users needs and can be partial guide for collection development.

They feel that evaluating performance on the basis of use is difficult, However this is a necessary criteria which if carefully employed, would begin to provide an objective measure of the total library effectiveness. While considering total library performance, conservation is another area that needs to be investigated. From overall
point of view it would seem less effort should be devoted to developing modifications of
existing measures of performance evaluation and more effort should be directed toward
developing precise operational procedures for:

a) defining the variables involved in the measurement of each criteria concept;
b) specifying the statistical data and formulas needed to calculate the criteria measures,
c) suggesting a procedure that will enable one to combine these individual criterion measures so as to evaluate total library performance.
d) developing a procedure to weight the individual criteria measures in accordance with each library’s estimation of the importance of services being provided and
e) eventually arriving at a procedure where by meaningful comparisons can be made of libraries.

R. H. Orr (1973) (51) has suggested that related management science techniques such as cost effectiveness analysis, cost benefits analysis, system analysis and PPBS may be applied to measure goodness of library effectiveness. He also suggested the ultimate criteria for measuring a library goodness is quality and value. How good is the service? This aspect may be called quality and How much good does it do? It is a value.

He has also suggested measures of quality and value may be characterized as direct measures when they are based on these ultimate criteria and indirect when some presumably related criteria is substituted as the basis of judgement. While tracing the
specific need for measures of goodness he classified the requirements of Librarian into six categories 1) document service 2) citation service 3) answer service 4) instruction service 5) facilities services and 6) adjunct service. He has suggested checklist to be considered as factors for measures deciding whether a particular measure is suitable for a particular application, 1) Appropriateness 2) Informativeness 3) Validity 4) Reproducibility 5) Comparability 6) Practicality.

P B Kantor (1976) (52) examine the problem of measuring library performance objectively with particular attention to the service rendered to the users of the library. He also consider in the context in which the library operates may modify the performance goals, both properly and improperly. He adopted a method and selected an aggregate measure of performance, the total contact time per potential user. This is mathematically decomposed into eight parameters which independently meaningful, measurable and manipulatable. He provides a multi-dimentional picture of corresponding aspects of library performance. He present detailed algorithm for determination of these from a frustration study and sketch the significance and possible measurement techniques for others. Some values of the four performance parameters related to frustration or availability are reported and their significance discussed briefly.

D’Elia and Walsh (1983) (53) discussed about user satisfaction with library service for public library to measure the performance. It has been used to evaluate the performance of various services with a library to measure in general a given library’s overall level of performance and to compare this level of performance with those
reported for other libraries. User satisfaction is also presumed to be positively related to the user's degree of library use. They had conducted a survey of 623 patrons of a public library which demonstrate that

1. The construct is potentially useful for evaluating the performance of services within a library.

2. Since the construct is affected by the demographic characteristics of the users, it should not be used to compare and

3. The construct is not related to the user's degree of library use.

Here they have pointed out that user's satisfaction has been used primarily to describe a given library’s level of performance and to diagnose the performance of services within a library. The methods they have planned while designing the study were:

1. In order to determine indirect and direct measures of user satisfaction which are subjective opinions of the users and are affected by the personal characteristics of the users.

2. To determine the indirect and direct measures of user satisfaction are useful for comparing the performance of different libraries.

3. In order to determine the indirect and direct measures of users satisfaction are useful for diagnosing the performance of individual services within a library.
4. In order to determine the indirect and direct measures of users satisfaction have any usefulness in the development of models of user behavior.

They have suggested the following indicators for measurement of evaluation of services: A) Quality of the collection. B) Availability of the collection. C) Physical facilities. D) Library staff. E) Convenience of hours. While suggesting measurement for library use are, frequency of visits, services used, circulation of materials, duration of visit etc.

The method they have used for data collection is that during a period of five consecutive days in November 1980, self-administered questionnaires were distributed systematically to every third adult (age eighteen years and over) exiting the main library of the Ramsey County Public Library (Minnesota). Patrons who had come to return the material were excluded from the sample, since they have not used the library facilities. After analysing the data they observed that:

1. A user’s satisfaction with the library was not necessarily related to his evaluation of the library.
2. Indirect and direct measures of user satisfaction appeared to be measuring two different dimensions of user opinion.

Geoffrey Ford (1989) (54) expressed that Librarians must examine what is wrong without existing measures, What are the problems with existing performance indicators? He said Librarian’s thinking to response to the problems we must measure Demand,
Another measure is service delay. He had given some typical figures for a book acquisition to processing.

Average age of book purchased for stock = 2 years
Average supply time from vendors = 6 weeks
Average time taken to catalogue book = 10 minutes
Average time to process book = 2 minutes
so we can make a book available 2 years 6 weeks and 12 minutes from its publication.

John Sizer says that librarians need to optimize the three E's:

Economy in acquisition resources,
Efficiency in the use of resources,
Effectiveness in the achievement of objectives.

He pointed out that information has value, so why not sell it, and use money income as the measure of performance? He has given example of his own library. In 1986-87 the library lent 2,40,000 items, the average cost of book was $20 so, the value of those loan was 2,40,000 x 20 = $4.8 million. Those loans were generated by 80,000 volumes which would cost $1.6 million to buy, therefore added value was $4.8 million - $1.6 million = $3.2 million.

Michael Cotta-Schonberg and Maurice B. Line (1994) (55) describes evaluation of academic libraries, with special reference to Copenhagen Business School Library. They had conducted a pilot project at the Copenhagen Business School library, Denmark, starting with a set of measures, testing them in one or more libraries. This study also produced unexpected findings and pointed to remedial action need to be taken at once. They have studied non-use of the library this issue was investigated by means of a special
non-users' questionnaire. The following example of the table shows the reasons for non-use of CBS library.

Table - 5

<table>
<thead>
<tr>
<th>Reasons</th>
<th>percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inactive students</td>
<td>5</td>
</tr>
<tr>
<td>New students</td>
<td>20</td>
</tr>
<tr>
<td>Finished studies</td>
<td>4</td>
</tr>
<tr>
<td>Opening hours</td>
<td>5</td>
</tr>
<tr>
<td>Buys own books</td>
<td>41</td>
</tr>
<tr>
<td>Uses Public libraries</td>
<td>26</td>
</tr>
<tr>
<td>CBS Library badly spoken of</td>
<td>0</td>
</tr>
<tr>
<td>one can never get what one needs in time</td>
<td>15</td>
</tr>
<tr>
<td>Can't use computers to find literature</td>
<td>0</td>
</tr>
<tr>
<td>Borrow books from other students</td>
<td>18</td>
</tr>
<tr>
<td>Other reasons</td>
<td>31</td>
</tr>
<tr>
<td>No of respondants</td>
<td>72</td>
</tr>
</tbody>
</table>

In this paper they have given many tables of library services. The data collected are well presented and compared with the indicators. The methods used for data collection was statistical study method, questionnaire study method and special study of OPAC use, the telephone interviews etc.

Jennifer Rowley (1994) (56) has taken reviews the market-place for existing current awareness services in her article "Revolution in current awareness services". In this article she has provided information about Inside Information: SWETSCAN and UNCOVER. Inside information from British Library Document Supply Center.
SWETSCAN is a new current service from Swets subscription service. While evaluating current awareness service the information manager should need to ask following questions such as :

* Will this service offer more tailored and relevant information ?
* Wider coverage of sources ?
* More detailed information ?
* Cheaper information ?

She has given checklist for evaluation of current awareness service. The checklist is as follows :

* Coverage
* Currency and timeliness of the information.
* Cost of the service.
* Mechanism for creating and maintaining profiles.
* Range of print, electronic or display formats in which records are available.
* Document delivery service especially to support current awareness service.
* Feedback mechanism
* Relevance of outputs to user requirements.

Margaret Kinell (1995) (57) gives a brief account of quality management and library and information services, while describing quality aspects she said that quality is not the same as merely the specification of a standard. A service whose standards are simply specified at a higher level than previously, but which then fails to meet the
demands of that specification will not be perceived as a quality service by its clients. She said that quality is customers satisfaction. She had given following service features related to libraries. Accuracy, Timeliness, Completeness, Friendliness and Courtesy, Anticipating customer needs, Knowledge, Esthetics and Reputation.

She said the value of a quality approach is more fundamental than a customer care programme. One method of approaching the problem is to use a model devised for services beyond the library and information sector is the SERVQUAL MODEL.

There are despite confusion between the terms “performance measurement”, “performance indicator” and “performance assessment” and problems in international debates on quality because of language confusions. At the conclusion she express the need of quality management is an essential tool for managing the expectations and demands of the clients and finders. There are many difficulties in implementing quality process and product oriented approach to services.

Pierre Corbone (1995) (58) is a Head of the Bureau of Documentation, he is one of the member of working group Committee for ISO standard in 1992. While describing the draft of International Standard (ISO CD 11620) on Library Performance Indicators. He express quality of service and of performance are becoming central notions, therefore professional need ways and means to evaluate the quality of the resources and services provided; performance indicators help them to establish priorities. Users are also better
able to appreciate the services and are more conscious of the strengths and weaknesses of their libraries. The term “performance” contains two suppositions that of effectiveness of the service provided by the libraries and that of efficiency in using resources. A service can be excellent, but too costly, or it can be economical at the expense of quality, in both the cases performance will not be good. A working group was appointed in 1992 by ISO to elaborate a committee draft standard on library performance indicators. Committee prepared a draft and circulated in 1994 by ISO/TC46/SC8 to the countries participating in this committee. A list of Indicators described in the Draft Standard. (59)

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>User satisfaction (general and by service)</td>
<td>Library use per capita; Cost per user; Number of library visits per capita; Cost per library visit</td>
</tr>
<tr>
<td>Public services.</td>
<td>Number of seats per capita; Seat occupancy rate</td>
</tr>
<tr>
<td>Services availability</td>
<td>Number of seats per capita; Seat occupancy rate</td>
</tr>
<tr>
<td>Providing documents</td>
<td>Titles availability rate; Requested titles fill rate; Requested titles delivery rate; In-library use per capita; Document usage rate; Proportion of requested titles in the collection; Catalogue search -title success rate; Catalogue search - subject success rate.</td>
</tr>
<tr>
<td>Retrieving documents</td>
<td></td>
</tr>
</tbody>
</table>

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Speed of retrieving documents from closed stacks;
Speed of retrieving documents from open stacks.

* Lending documents:
  Collection turnover rate;
  Loans per capita.

* Document delivery from external sources:
  Speed of interlibrary delivery

* Inquiry and reference services:
  Correct answer fill rate.

* Facilities:
  Mean facilities availability rate;
  Mean facilities usage rate.

* Acquiring documents:
  Speed of acquiring documents

* Processing documents:
  Speed of processing documents

* Cataloguing:
  Cost per title catalogued

At present the draft standard does not propose indicators for these services:
information searching, user training, promotion of service, staff management, staff training.

Peter te Boekhorst (1995) (60) is a member of working group of the section of University libraries and other General Research Libraries which has been developing the guidelines. This working established following criteria for guidelines for performance measurement:

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* To concentrate on academic libraries
* To include only measures that would be applicable in all countries and to all kinds of academic libraries
* To measure effectiveness, not efficiency (cost-effectiveness)
* To include "overall" indicators (for example, user satisfaction with the whole library) as well as indicators for separate activities.
* To concentrate on user-oriented indicators (that excludes, for example, indicators for collection preservation).

While describing the relationship of mission and performance measurement, in this context he explains, performance is understood as the degree to which a library is achieving its objectives, especially in terms of users’ need. He also explained that statistical data is required for performance measurement. He has given the gaps between types of statistics collected by the librarian and data required to derive indicators of performance. He mentioned three reasons for this gap: they are quantity versus quality, indicative value, and isolation.

The following list of performance indicators is described in detail in the Guidelines.

**General Library use and facilities**

1. Market penetration
   1a ratio of users to primary use group
   1b ratio of users of certain groups to total groups
2 Opening hours compared to demand

3 Remote use

3a number of remote uses in relation to primary user group

**Collection Quality**

4. Expert checklists (percent of items in the collection as listed in checklists and bibliographies)

5 Collection use

5a lending collection

5b in-house-stock

5c percent of stock not used within a certain period of time

5d subject collections

5e subject collections acquired recently

**Catalogue Quality**

6 Known-item-search

7 Subject search

**Availability of items in the Collection**

8 Acquisition speed

9 Book processing speed

10 Availability
Beverly P. Lynch (1995) (61) describes general types of standards that have been adopted and promulgated. He explains the three methods used in developing standards for the evaluation of libraries. These include: 1) Determining which libraries generally were thought to be good ones and then using those to be the comparison group against which other were measured. 2) Using experts by appointing a committee of leaders in the field to come together to formulate statement of standards and what particular statistics would be required to measured. 3) Hiring an expert as a consultant.

The Association of Research Libraries, USA, an organisation with about 110 of the largest university libraries has been collecting statistical data from its members for many years. This data is helpful to measure the quality and performance of the libraries. He had given the problems in development of standards for library performance:
1. on what basis should the standards rest, professional judgement or some empirical research, and if research, what kind?

2. should quantitative standards be set at minimal or optimal levels of adequacy and how does the intent get interpreted?

3. can the statement include input and output measures?

4. how is the diversity of libraries, which the standards are addressed, handled?

Indian Scene

Carl M. White (1965) (62) conducted a survey of the University of Delhi Library. He was responsible for the total evaluation of the Delhi University Library system. To judge the general progress of the university library he made comparisons between the data available and collected with the help of questionnaire with those on other libraries in the country, examined the institution's record to determine the pattern of its growth, used norms and methods and prepared a comparative analysis to measure the financial support the library received. He checked the standard bibliographies to assess the strengths and weaknesses of the collections and sent out the questionnaire to the users, he also conducted interviews with teachers, students to measure user
satisfaction from the library services they get from the library system in the light of their study and research.

All this was done with reference to the standards and educational commitments of the university. This report was published by Planning unit of the University of Delhi in 1965. He made suggestions to improve the quality of library services. This report is a guideline for evaluation process of the university libraries in India.

Dr. Seva Singh (63) wrote a paper on "Information services in University Libraries". In this paper he tried to give brief account of library services provided by university libraries in India. He has suggested that the university library will have to gear up to provide the following services effectively and efficiently:

1. Acquisition, processing and organisation of all kinds of reading materials;
2. Circulation service under which all kinds of reading material may be lent out to users;
3. Provision of regular reference service in answering users' queries, giving user education etc.,
4. Provision of information services such as indexing and abstracting services, bibliographical services, current awareness services etc.

His observations regarding information services are follows:
a small number of university libraries are rich in resources and bringing out indexing and abstracting services in some specialised areas particularly where either the commercial services are not available.

Many university libraries compile lists of new acquisitions during a particular period of time. on monthly basis, these are, in a way current awareness list.

While many libraries manage to provide bibliographical services but others due to lack of funds to compile the specific subject bibliographies needed by faculty members and other users.

Referral services are not much known in Indian university libraries and even many information personnel are not familiar with referral services.

Delhi University Library provides translation service but translation services are not fully introduced in university libraries;

1. Lack of technical manpower knowing well one, two or more foreign languages other than English, and
2. Lack of demand for this service from users.

He suggested that from the point of view of the library personnel, steps should be taken for their professional development. He also suggested that in order to improve the information services in future, changes in the course contents of library and information science schools are needed accordingly. He also traced on the improvement of standards for library practices and performances need to be updated from time to time by organising workshops for scholars and researchers.
S.K. Kesawani and S.G. Bhat (64) conducted a survey of documentation services in university libraries. They have identified three main categories of clientele of a university library as students, researchers and teachers. They have observed that in some university libraries, even a monthly list of acquisitions is not issued, neither book exhibitions are organised, nor are publications displayed and even reference departments in libraries are not well organised.

They have traced the need for disseminating information about project oriented bibliographies compiled by each university and News Digest Service in university libraries in India on the basis of "News Digest on Rayalseema" a popular quarterly journal, which carries important news items about Rayalseema being brought out by Sri Venkateswara University Library, Tirupati. They have also traced the need of bringing out a publication Directory of Doctoral Research in progress.

At the conclusion they suggested that a comprehensive survey of documentation facilities available in the university libraries in India with details of their working should be carried out from time to time in order to avoid duplication efforts. Each university library should bring out "Inventory of Current Research Projects" on a regular basis to disseminate information about ongoing research projects in the university.

Mohammad Sabir Husain (65) explained the need of extension service in university libraries in his paper "Dimensions of extension service in University libraries".
He has identified the following activities as extension services in Indian Universities should carry.

1. Personal assistance to readers.
2. Exhibitions and book display on important events.
3. Lectures and talks by experts on various disciplines.
4. Use of mass media of communication should be extensively exploited.
5. Branch library/extension library centres in case of scattered campus of the university.
6. Literary and cultural functions like Mushairas, Kavi-Sammelans etc should be arranged by the university libraries.

A workshop on formulating standards for college libraries was held at Khandala from 5th to 7th March 1979. In this workshop several recommendations were made regarding standards for college libraries in India. The major recommendation was about finance: a minimum of 4% of the total budget of the institution should be allocated for the library. He also recommended minimum essential physical facilities be provided to all the college libraries. Staffing pattern for a college library was also suggested.

M. R. Riswadkar has discussed the topic of evaluation of library services in his paper “Evaluation of Academic Library services”. He pointed out that it is more important to show the interest by librarians in undertaking evaluation of library services. He also traced while evaluating the library services, those who are responsible for it
should concern themselves with two aspects of the library, its resources and their use. A total evaluation of a library should cover following factors of its service:

Acquisition, classification/indexing system, catalogue/index, circulation, reference, bibliographical services and staff. While evaluating reference service he suggested a method to note a query on a slip of a paper and then record the degree of success and the time spent on it. It is possible to calculate the cost of answering it. He has posed few questions in different areas such as library resources, library use and management. These questions are gathered from Self-study manual for Indian Universities and Colleges by Malcolm M. Willey and J. Arthur Branch (1968)

Dr. R.K. Rout (1992) conducted a survey of university libraries in Orissa and West Bengal for evaluation and measurement of library services. In his book “Operational Management of University Libraries in India”, an attempt has been made to analyse inadequate library environments persisting in many states of India and measures different suggestions in different situations. Evaluation and measurement are the essential components of scientific management. He attempted to quantify library services and measuring the satisfaction of the users through some statistical methods. The library management techniques have been adopted to these static situation developing concepts, Steady-Stats design, Dynamic design, Control system design and other related parameters.
M.C. Shukla (1994) had undertaken a study on evaluation of abstracting services in the field of biomass. It is a study of coverage, overlap, time lag, indexing and Indian contribution. The study compares eight international and two Indian abstracting services in the field of energy. During the period of 1982-86, a total of 9206 records were selected as a sample from the ten databases under examination. Stratified random sampling was employed in this study. The important findings are:

1. The total overlap at journal level was found to be 48.6%. The total overlap at conference level was found to be 30.6% and the subject coverage was not satisfactory in all cases.

2. It was found that bio-energy literature conforms to Bradford's law of scattering.

3. The analysis of country-wise distribution revealed that maximum source documents are published from USA (51.4%) followed by Germany and UK both (6.6%), India (5%), Europe (27%), and Asia (10%).

4. It was observed that over 81% literature in the field of biomass is published in English language.

This study is useful for collection development in University libraries and subscribing to international databases.
Surveys/studies undertaken

Collection Development

Sivani Sengupta (1981) had undertaken a study "Evaluation of the English Literature collection in the University of Poona Library" at her M Lib Sc course. During her study she used as many as eleven tools to assess the degree of adequacy and appropriateness of the collection.

Besides checking the collection against standard bibliographical tools, a questionnaire was sent to all the teachers, students and scholars seeking their opinion on the adequacy and appropriateness of the collection for post-graduate studies and research at different levels. Suggestions for the improvement of the collection were also invited from the teachers, students and research scholars.

Finally those titles from the eleven bibliographical sources used that were not held in the collection of English literature were listed and the list was circulated to the faculty members to know from them which of the missing titles should necessarily be available in the Jayakar Library of the University of Pune. The titles thus recommended from the desiderata were useful for future acquisition in the library.
She observed some gaps in some serial publications, which should be filled. She suggested that library collection should not be limited only to course of study but should be necessarily be comprehensive to include material on related topics.

Susheela N. Shirke (1993) (71) made a study on Language dictionary as a basic tool in information retrieval with special reference to Jayakar Library. Basically she has prepared a bibliography of all language dictionaries available in the Jayakar Library. It is a good tool for research scholars to know which dictionaries are available. The bibliography has been prepared in two sections: 1) English language dictionaries 2) Other language dictionaries. After consulting the library catalogue, and actual the dictionaries. The researcher has observed that the Jayakar Library possesses representative collection of all types of language dictionaries.

Ashwini M. Wange (1997) (72) studied adequacies of the collection in Library and Information Science from the Jayakar Library. The study was use of books made by the M.Lib.Sc students referred in the syllabus: 1) Whether the books were available in the library. 2) How far these books are being used. To measure the adequacy of the library collection she used to compare syllabus of M.Lib.Sc course with library catalogue. It is found that the library lacks 30% of its collection as far as M.Lib.I.Sc syllabus is concerned. It is also observed that 30% books prescribed for M.Lib.I.Sc course are not available in the library for the paper-II (Research methodology). It is notified that the periodicals were used extensively as compared to the books. The use is more than 50%.
Otieno Peter Omoni (1996) (73) has evaluated encyclopedia collection in all the subjects available in the Jayakar Library. He evaluated 265 encyclopedias published in English language and available in the Jayakar Library, University of Pune. He observed that the library possesses representative encyclopedias in major disciplines. But latest editions are not available.

Shubhangi A. Bartakke (1994) (74) made a study on dictionaries in science and technology available in the Jayakar Library. Library has strong and varied collection in Natural Sciences, Science and Technology. It is observed that most of the dictionaries are quite old publications. It is revealed that 46 paribhasha kosh published by different authorities and private institutions are available for reference in the library. She suggested that attention should be given to purchase varieties of subject dictionaries. Latest editions in Science and Technology should be procured periodically. Reference Librarian should compile bibliographies to handle queries. Orientation programme should be arranged to expose dictionary collection available in the library.

Hemlata S. Bonde (1997) (75) has evaluated collection of Encyclopedias in Physical Sciences. She scanned the catalogue (classified part), Computer database in the Jayakar Library in Physical sciences. It is observed during the study that only 47 encyclopedias were purchased in physical sciences during the year 1950 to 1997. It is observed that most of the old titles have not been updated by latest editions. She
suggested that efforts should be made to procure specialized encyclopedias. She has suggested a list of encyclopedias to be purchased for the library in physical sciences.

**Reading Habits**

There are many studies undertaken by the M.Lib.Sc students regarding reading habits of the students, teachers of the colleges and university. The following studies are related to the Jayakar Libray hence included in literature survey.

Nalini Karandikar (1980) (76) has conducted a survey of reading habits of library professionals in college and university libraries in Pune.

Kiran V. Ranpise (1997) (77) has conducted a study on reading habits of the teachers of Post-graduate departments in Pune University campus. The study was based on the data collected by means of questionnaire. The basic aim of the study was to find out the outset by examining what, how much, how careful and how extensive teachers do reading. She suggested that teachers should do their non-professional reading regularly. It was observed that most of the teachers do not turn to non-professional reading which is equally important. She suggested that teachers should spend some percentage of their income to develop their personal library collection.

**Departmental libraries**

Aparna Mone (1989) (78) has made study of the role, relevance and use of departmental libraries in higher education: a case study of University of Poona. She
Pratibha S. Kulkarni (1995) (79) conducted a survey of use of books in the library of Department of Statistics, University of Pune. She used survey method to collect data. The primary data was collected from the book issue cards. She designed a questionnaire to know the opinions of the users and used random sampling technique.

It was observed that out of 300 books in the library of statistics department, 51 books (17%) were not used at all. Eighty percent faculty members reported that the collection is adequate for teaching purpose whereas 66% research worker reported that it is not adequate for research, 34% post-graduate students reported it is adequate.

She suggested that library hours should be extended from 9:00 a.m. to 6:00 p.m. She further suggested that being a research library, CAS, SDI services should be introduced to faculty members and research workers.
Computerization : use of CDS/ISIS software

B M Pange (1991) (80) made study on cataloguing of documents in machine readable form using CDS/ISIS software. The main aim of the study was to convert the library records into machine readable form. It has covered various types of retrospective conversion methods and suggested one suitable format to Jayakar Library. CDS/ISIS software is used to convert the records and the total cost to convert one record is derived to Rs.3.34 in 1990. This study is a guideline to those librarians who want to convert their old records into machine readable form.

Vandana Jagtap (1992) (81) made study on acquisition of books using CDS/ISIS package in Jayakar Library and prepared format for acquisition module. Acquisition section of the library is considered most important as it provides a base to computerize other library activities without much labour.

It is observed during the study that searching of books in devanagri script is not possible. There is a lack of provision to delete a range of record number in CDS/ISIS. There is a possibility of data corruption and graphic is not possible in this software. She suggested if this package is designed for multiusers, it will be useful for acquisition section. She suggested different formats for acquisition activities.

Kishor Ingale (1992) (82) made a study on computerised periodicals control for Jayakar Library using CDS/ISIS ver. 2.3. The main objective of the periodicals control
system is to manage and control of the receipts, prevent the gaps in library holdings and increase the accessibility of periodicals to library users in timely manner.

He has used CDS/ISIS package to develop a system for periodicals control. Since he has not collected any data, he applied CDS/ISIS package to develop procedure for serials control. The objectives were tested with the data. But at the conclusion he arrived that mathematical calculations are not possible in this package. He has suggested different formats for inputting the periodicals data and facilities available in CDS/ISIS package.

Sunita A. Joshi (1988) (83) has made a study of computerised acquisition procedures for University Libraries in India. She made study of the existing acquisition procedures used in various university libraries in India and prepared a suitable computer programme in dBase III package for acquisition procedures.

Ajay Pandit (1989) (84) made a study how CDS/ISIS package can be useful for the preparation of bibliography for Western Ghats Project which is assigned to Jayakar library under the guidance of Dr. S.G. Mahajan. In this study only one aspect which is creation of textual database has been considered and CDS/ISIS can be used for generation of bibliographic database. He suggested to create various small databases using CDS/ISIS.

N.R. Ramdasi (1989) (85) conducted a feasibility study of Poona University Library System in connection with Local Area Network. He has worked out the total
cost required for Local Area Network for the Poona University Library System. The cost of Network configuration include hardware, printers, software etc. work out to Rs. 13,66,500 in the year 1989. He has observed that the traffic from university departments to central library is more.

Note: Most of these studies are conducted prior to purchase of LIBSYS software for the Jayakar Library in 1991. Even in 1998 Libsys package is not used for periodicals control in the Jayakar Library.

Costing of library operation

Atleto J. Afonso (1991) (86) conducted a study on cost reduction in circulation activities of Jayakar Library. He used conventional methods of data collection such as questionnaire, interview, observation and financial record of the library and worked out cost of issue per document by using different costing methods. He worked out a cost of Re. 00.69 paise for issue of each document.

He suggested two new operating system for issue of books which can be more effective and time saving. He suggested some revision in the existing system. For example instead of providing two issue counters, make one issue counter resulting in reduction of the cost along with maintenance of efficiency.
Gaus Khan (1987) made a study on costing on library operations relating to book ordering and processing at Jayakar Library. He worked out costing in the context of acquisition of book, its processing and goes up to circulation. He consulted many sources which are required for working out costing of operations, such as records of acquisition section, Accounts records, Salary sheets of the employees, Library Committee Records etc. He studied job analysis of the staff involved in the process. The year selected for the study was 1985-86 to measure and assess the total cost of the turnover of acquisition and processing of documents. He has collected the information about budget allocation, time required for processing, salaries of the staff, stationary required and its cost etc. He derived the cost of operation of document was Rs. 08.92, processing operation unit cost to Rs.13.17, Physical preparation per unit Rs.2.15, cataloguing per unit Rs.6.84, Classification per unit Rs.4.18. The total cost of adding a book to the collection at Jayakar Library worked out to Rs. 22.09.

He observed lack of coordination between personnel working in acquisition, cataloguing and classification sections of the library as it results into inefficiency and the work suffer. He suggested that every bill has to be certified by the Asstt. Librarian incharge of the concerned section.

Use studies and User studies

Milan G.Natekar (1985) conducted a survey of use of periodicals in the Jayakar Library. She used questionnaire method for data collection, taken interviews of
the staff working in the periodical section and circulation section. The main objectives of
the study were to find out the frequency of the users visiting the periodicals section, to
find out whether users are dependent on other libraries and to find out lacunae in the
library rules, procedures, movement of readers in periodicals etc.

She observed that periodicals section is consulted most during vacations as
teachers/research scholars from constituent colleges visit library during vacations. Hence
the periodicals section is to be kept open for longer hours during vacation. She has made
motion study of movement of periodicals for circulation activity and suggested to issue
the periodicals in the periodicals section.

C.P. Pharande (1986) (89) conducted a survey of circulation system of the
Jayakar Library. He studied all the activities connected with the circulation section and
made a comparative study among university libraries in Maharashtra. He calculated
unit cost of circulation activity of document. It was Re.00.79 for charging and
discharging of documents. He made several suggestions regarding reservation of books,
loan period, consultation of catalogue, book limit etc. He observed that library is facing
acute problem of space for storage. He made various suggestions for circulation
activities which will help to increase efficiency and effectiveness of the section.

Manoj Thakur (1993) (90) made a study on use study of books in the Jayakar
Library from January 1987 to Dec. 1988. He considered how many books are acquired
and used by the users during this period. He collected data from book cards from which
books are issued. He observed that 42 books out of 200 books were used more than 10 times by the students, out of 200 books 25 books were used only once, 20 books were used only for 2 times during the above period.

He suggested a plan to educate users to ensure optimum use of collection. He suggested that shelf rectification should be done every year.

**Library rules**

S.K. Patil (1989) (91) has studied the existing rules of the Jayakar Library, University of Poona from its establishment. He conducted a survey about the library rules to know the opinions of the users of the library regarding library rules. Questionnaire technique was used. He also consulted the minutes of the Library Committee. The library rules are the guidelines for users and the library staff. He suggested that a video cassette may be prepared regarding use of the library and this cassette may be shown to the users of library at the beginning of academic year for new entrants. He also suggested some amendments in the library rules for the benefit of the users.

**Space management**

A.N. Rasal (1982) (92) made a study on space management of Jayakar Library in the year 2001 A.D. He has studied existing space available with the library and predicted the requirement and future growth in further twenty years upto 2001 A.D. He
considered all the aspects of the library which occupies the space in the library such as
library catalogues, users of the library, stack areas, periodicals areas, microfilm unit, rare
books room etc. He suggested withdrawal of library collection periodically, and also
suggested a model for withdrawal of reading material from the library and keep these
books in compact storage. He suggested an alternative for space requirement was
microforms for periodicals. He made suggestion regarding resource sharing among the
local libraries.

Mona Joshi (1985) (93) has undertaken a survey of periodicals back files,
which grow every year. As an alternative microforms can be used. She studied the growth
of periodicals in Science of the Jayakar Library as experimental collection. She used
questionnaire method to know the opinion of the users where microforms are used in
India. She suggested that back files of those titles that have been discontinued for last 10
years should be converted into microforms (19 titles in chemistry). She suggested that
one microform reader-cum-printer be purchased for library.

All future retrospective acquisition of periodicals back files should essentially be
purchased in microform version.

Library effectiveness

Dr. S.R. Ganpule (94) made a study on measuring library effectiveness in 1987.
For this purpose he selected twelve libraries from academic, research, school and
prepared a model for measuring effectiveness and tested in these libraries. The conclusion of the study are divided into three groups. They are as follows:

1) Efficiency and effectiveness are closely correlated.
2) The Librarian's role as a Manager is a very crucial role in library effectiveness.
3) Effectiveness of library depends upon the role of parent organisation and freedom enjoyed by the librarian to introduce innovation and services given to the users and library's participation in achievement of organisation goals.

Literature search of major researches done in this area is a major contribution of this study (90 pages). He has mentioned the varieties of criteria used to measure effectiveness of the library. Different methods and techniques of data analysis used in these studies are brought together in this study.

**Girja Kumar Committee Report**

The Pune University Authorities had appointed one man Committee under the Chairmanship of Prof. Girja Kumar, Librarian, Jawaharlal Nehru University, New Delhi for framing developmental proposals for the Poona University Library System 1981-85 in 1980. He has made a comprehensive study of the university library, besides research libraries in Pune consisting of Gokhale Institute of Politics and Economics.
He visited almost all the local libraries and collected data. He has observed the working of the Jayakar Library and concluded that there should be a library system for University of Poona. This will necessarily to bring about the improvements in the functioning of the Jayakar Library. The qualitative change in library services for the embryonic Poona University Library System is possible.

He made recommendations on library management, organisation of the library, academic status of the librarians, staff organisation, resource sharing, finance, staff developments, library services etc. He suggested 45 additional positions for the Jayakar Library to be filled in on priority basis within three priorities.

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