CHAPTER 3
PERFORMANCE MEASUREMENTS AND STANDARDS

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3.1 BASIC CONCEPT OF PERFORMANCE MEASUREMENTS

It has been stated that “what gets measured, gets done; what gets managed, gets done better; and what gets rewarded, gets done sooner”.

Performance measurement is the process of regularly measuring the outputs and outcomes produced by the organization. Performance measurement is a useful tool for managing services. It allows to track the progress of the services/activities towards largest goals and to identify its strengths and possible areas for improvement. All the stakeholders – staff and users, should be actively involved in performance measurement activities to track outputs and outcomes. Ultimately, performance measurement information will ensure accountability, and will help to improve services and client outcome.

Performance measures do not aid performance by themselves but they provide the controls by assessing how the library is performing, and can be used as accountability measures to the stakeholders of the library. The function of a librarian is to ensure that the services meet the particular needs of their users at an acceptable cost. Performance is therefore assessed according to efficiency and effectiveness.

Performance measures are a means of knowing quantitatively something important about our services and processes. It tells us

- How well we are doing
- Whether we are meeting our standards/goals
- Whether our customers are satisfied
- Whether our processes are in statistical control
- Where improvements are necessary

Performance measures are comprised of a number and a unit of measure. The number denotes magnitude (how much), while the unit gives meaning to the number (what).

3.1.1 Terms Related to Performance Measurements used in the Libraries

In Library and Information Science literature, library performance is used with different concepts like library effectiveness, user’s satisfaction, evaluation of library services, library performance indicators, accountability and responsiveness, library evaluation, library surveys, library standards, library statistics, etc.

3.1.1.1 Performance is the degree of how far an organization is achieving its objectives, particularly in terms of users’ needs.

3.1.1.2 Performance measurement refers to a collection of statistical and other data describing the performance of the library, and analysis of these data in order to evaluate the performance. It involves comparing what a library is doing (performance) with what it is meant to do (mission) and what it wants to achieve (goals).
It is the measurement of the achievement of an objective, the completion of jobs, the execution of duty, and the conduct of an operation, and setting of goals/objectives.

In the words of Hughes (1965), "The technique of performance measurement is used for control and to keep the organization on the track of lost it may go off."

According to Rothstein (1964), "Measurement is a description in quantitative terms; evaluation is the rating or an assessment of effectiveness and worth. Evaluation pre-supposes measurement against a specific standard or yardstick to goal."

3.1.1.3 Performance Standards

Hamburg and others (1974) have examined standards in terms of performance measures. Existing library standards tend to be neither objectives nor performance measures. Rather, they are either descriptive rules for performance measurement or quantitative rules for minimum inputs of matter, personnel, and physical services.

Campbell (1983) has suggested that standards are essential for effectiveness of the library system; and for offering best services to the users, a system of library standards should be established that identifies:

1. Minimum standards for all public libraries in America that only very few could not achieve.
2. Advisory standards that all libraries should strive for, though only some will achieve them.
3. Benchmarks of excellence for libraries that very few libraries will achieve. These libraries will help disseminate their best practices for all to emulate.

3.1.1.4 Efficiency and Effectiveness

Several authors have equated efficiency with effectiveness. But Katz and Kahn (1966) have pointed out that "efficiency is a component of effectiveness."

Efficiency is concerned with optimization of performance to enhance effectiveness. Efficiency reflects emphasis on resource input into library as opposed to the effect of the library on its user.

According to Averaa (1981) "In the library context, efficiency is related to performance of tasks which are operational and which enable the library to produce its services."

T.J. Galvin (1976) argues that "if the library is able to prove its utility for the society, it survives and survival suggests effectiveness. Even though this is a convincing argument, sometimes we see that even an effective library may not survive due to uncontrollable factors."

3.1.1.5 Users' Satisfaction/Surveys

Practically everyone has identified users' satisfaction with library effectiveness.

According to Phillips Shelley (2001), "To transform the work and how it is accomplished, libraries must begin listening and acting on the voices of customers, staff, work processes, and the organization for the purpose of learning new directions and partnering with customers."
User surveys can be designed and administered in a number of ways. Self-administered surveys are often employed to reach a large number of potential respondents with a minimum of direct contact and cost. Individuals are given or sent surveys to complete and return and the responses are turned into data that can be analyzed. Surveys can range from broad and comprehensive to those narrowly focused on specific services or activities. When properly designed and administered, user surveys can provide both quantitative and qualitative data directly from the target population.

3.1.1.6 **Performance indicator** is a quantified statement used to evaluate and compare the performance of a library in achieving its objectives.

Kanter (1986) defines performance indicator as "quantitative and qualitative statistical information used to assess how successfully objectives are being achieved”

Performance indicators are simply management tools designed to assist managers in determining how well their service is being performed. They provide evidence on which judgements are based. Performance indicators contribute to the process of evaluation, but the latter is a broader term for the assessment.

The ISO Standard on Library Performance Indicators summarizes performance indicators as “numerical or verbal expressions derived from library statistics and other data used to characterize the performance of a library including simple counts and ratios”.

3.1.1.7 **Library Statistics**

Many libraries regularly collect statistical data of their resources and outputs. Many countries have well defined National Library Statistics. Collecting data regularly provides a better canvas to draw performance measurement.

This statistics, however, is different from performance measurement.

Gathering statistics is routine task in any library. However, such statistics will provide only raw material to assist librarians to analyzing the library performance.

3.1.1.8 **Quality Assurance**

QA in LIS is a major concern which is being discussed globally. Various methods, tools, techniques, and strategies are tried in libraries and information centres to achieve QA and excellence. QA is a planned and systematic set of activities to ensure that variances in processes are clearly identified, assessed, and improved for fulfilling the requirements of the customers, products and services.

ISO 9001:2000 is an important tool and opportunity that enables organizations to acquire the label of an enterprise caring for the customers’ needs and improve their performances at the same time. Libraries and information centres are central to the educational process that can and must produce a reservoir of national leadership in respective areas.

QA needs to initiate more investment in staff especially in developing their skills, knowledge, leadership capabilities, collections building, systems, procedures, policies, focus, ICT infrastructure, and vision. It is also equally important that we identify relevant, recent, and sustainable efforts to ensure QA continuously.
3.1.1.9 Balanced Scorecard

Balanced Scorecard facilitates strategic planning and explores cause-effect relationships between performance measures and mapping the balance scorecard to the activities of the organization. One of the challenges in implementing the Balanced Scorecard is selecting appropriate performance measures for the following four areas of the Balanced Scorecard:

- Financial perspective – how do we look to stakeholders?
- Customer perspective – how do our customers see us?
- Internal business processes – what must we excel at?
- Innovation and learning – how can we continue to improve and create value?

3.1.2 Purposes of Measuring Performance

- To identify users’ requirements and to know whether we are providing the services they want
- To help understand the process and to know where the problems are
- To ensure that decisions are based on facts and to know whether our decisions are based upon well documented facts
- To show where improvements are needed to be made and how we can improve
- To show if improvements happen, whether we have a clear picture
- To make an assessment of how the service is being performed and
- To know the extent of accountability to the stakeholders.

3.1.3 Principles of Performance Measurements

- Measure only what is important
- Involve employees in the design and implementation of measurement system. Give them ownership.

3.1.4 Selection Criteria for Performance Measurements

A properly developed set of performance measures typically satisfies the following criteria:

- Meaningful-Valid: The key to assessing programme performance is measuring the right things with the right measure. If a measurement fails to measure what was intended, then this measurement is not valid.

- Consistent-Reliable: The data used to generate the measurement must be consistently accurate and reliable. It is important that the collected data actually describe what is being measured. If other departments have similar services, can the same measure be applied universally?

- Understandable-Clear: Think about whether or not a measure is simple enough to be understood by people who are interested in the programme. Keep it simple.

- Perverse Incentives: Might the measure lead to behaviour that reduces quality or outcomes just so the “numbers look good”?
Timely Reporting: Think about the appropriate timeframe for which the data will be reported. The measurements used for developing the annual budget must be provided by mid-year.

Comprehensive: Performance measures should capture the most important aspects of a programme’s goals. When multiple measures exist, it is best to use a variety of measurement types (e.g., input, output, outcomes, efficiency, and quality).

Not Redundant: It is acceptable to have more than one output or outcome measure, but keep in mind that providing variations of the same measure is redundant.

Sensitive to data collection cost: For many services, the data needed for performance measures is readily available. However, data collection cost should be taken into consideration, especially when creating new measurements. Many measures are already established and should be considered.

Focused on controllable facets of performance: Good measures should focus on the indicators that show success.

3.1.5 Performance Measurements Process

- Identify the process flow: Without this understanding, employees cannot utilize the output of what they have measured;
- Identify activities to be measured;
- Establish performance indicators/standards: All performance measures should be tied to predefined indicators/standards;
- Establish performance measurement: In this process, a performance measurement system will be built by identifying each function’s measures;
- Identify responsible parties: A team or an individual has to be assigned the responsibilities for each of the steps in the performance measurement processes.
- Collect data;
- Analyse actual performance: Raw data is converted into performance measures and disseminated in the form of a report;
- Compare actual performance with goals/standards;
- Analyse whether corrective actions are required. Depending on the variation between performance measurement and standards/goals, corrective action may be needed;
- Make changes to meet the goals. This is a quality improvement process;
- Evaluate whether new standards are needed

3.2 UNDERSTANDING OF LIBRARY PERFORMANCE MEASUREMENTS

3.2.1 Some Definitions

“The results of measurement can be used to evaluate the performance of a library, and thereby determine whether or not it is effective.”

"Performance measurement is comparing what a library is doing (performance), with what it is meant to do (mission), and wants to achieve (goals). The extent to which goals are reached can be determined by using performance indicators."

(Boekhurst, 1996, p. 279).

"Comparing what a library is doing (performance) with what it is meant to do (mission) and wants to achieve (goals). Performance is the degree to which a library is achieving its objectives, particularly in terms of users' needs."

(IFLA, 1996)

"Performance measurement involves the evaluation of an activity, programme, or service in relation to its appropriateness, effectiveness, and efficiency. Performance indicators are developed to measure these criteria."

(Schmidt, 1990)

3.2.2 Basoc Concepts of Library Performance Measurements

Assessing the performance of libraries has its roots in the performance assessment of business. The library’s current assessment process and metrics are based on business assessment and metrics. Measurement of library performance, as traditionally carried out, while of some limited use in assessing and managing library services, does not assist in developing an understanding of capacity to evaluate the more intangible benefits of libraries. There is no absolute standard of quality in a library service. In each library, the quality standard is predicated on the basis of what the organization and clients require from the library.

Monitoring performance can be a guide as to how well the library is meeting its objectives, chart progress towards specific goals, and identify any problem areas. Libraries have been attempting to demonstrate their performance and service value since the inception of public libraries in the eighteenth century. However, according to Wedgeworth (1993), “Reliable and valid measurement in the social sciences is extremely difficult.”

Jennifer Cram and Valerie Shine (2004) have rightly said, “What gets measured, gets done,” an epigram that the performance measurement community uses to communicate the essential message that use of performance measures affects behaviour."

Systematic measurement of performance delivers the concrete performance data needed to arrive at a meaningful evaluation of a library’s performance. Performance measures serve as a gauge for the overall performance of a service, that is, the measures identify the amount of services (quantity) and their level of effectiveness (quality). Evaluation is essential to the accountable library. It enables the library to demonstrate how well the system is functioning in relation to pre-determined objectives by monitoring the quality and quantity of the service. Evaluation enables the library to determine how best to improve the quality of the service in a systematic manner.

There is no single direct measurement that can be applied to a library that will give an accurate picture of its performance; therefore assessment of any library’s performance will involve a combination of a number of measurements.
There has been little agreement to date on a standard definition of what is meant by the term ‘performance measurement’. "In the ever-growing literature on library performance measurement, no standardization of the terminology has been established" (Cullen, 1995).

Today, many libraries are actively involved in the implementation of quality frameworks and are utilizing quality management tools such as Benchmarking, Performance measurements, etc. The activities in the field of library always lead to a statement of objectives of the parent institute and the library’s annual planning cycle. This planning cycle needs to be monitored in relation to achievement. The performance indicators provide the means.

Performance indicators relate to the library and institutional goals. Library management needs to focus on the key issues of concern as determined by the management and the library users. Therefore, a library’s service goals must support the institute’s goals. This can be done by integrating relevant library staff into the institute’s planning efforts at all the levels. That way, the library is able to set objectives which are in support and influenced by the parent organization. To meet the demands of the future, a strategic planning process is required, which is linked to the continuing measurement of inputs and performance.

Orr (1973) has described what a performance indicator constitutes - a performance indicator should be appropriate, informative, valid, reproducible, and practical, fit for being used for comparative purposes.

Orr first expressed the view that it was possible to consider performance measures as continuum reflecting the transformation of resources into goods or services and ultimately having an impact or effect on an individual and society as shown below:

\[
\text{Governing Body} \rightarrow \text{Library Services} \rightarrow \text{Customers} \\
\text{Resources} \rightarrow \text{Capabilities} \rightarrow \text{Utilization} \rightarrow \text{Effect or Impact} \\
\text{Input Measures} \rightarrow \text{Process Measures} \rightarrow \text{Output Measures} \rightarrow \text{Outcome Measures}
\]

We can describe the above figure as follows:

The resources provided to a library are transformed and organized so that the library has the capability to provide a set of services. The library customers utilize the services which have a beneficial effect or impact on the individual and directly/indirectly upon the local community.

While traditional statistics focus on the library itself, performance measurement will, through its focus on output and outcome, have the user in the centre. In performance measurement, the link between input, output, and outcome will help in systematic improvement of the library services.

Performance measures are tools that -

- Evaluate the effectiveness of the library activity;
- Are useful for and replicable in all types and sizes of the libraries;
- Support decision-making;
- Are easy to apply and use and inexpensive to administer;
- Are user oriented;
- Reflect common library goals and objectives.
3.2.3 Aspects of Library Performance Measurements

- **Library inputs** are the resources available and applied to support the services and products of a library. They are measured in terms of staff, facilities, stock, equipment, funding, and so on applied to a library’s services. To some extent, the manager of the library has control over how these resources are allocated to the services offered by the library.

- **Library outputs** are the direct results of the application of the resources. They can be measured in terms of quantities of output produced or made available and their attributes (quality, timeliness, availability, accessibility and so on).

- **The effectiveness** of a library is the effect of library outputs as seen from the perspective of users of those outputs, that is, the extent to which a library or service accomplishes stated objectives and/or satisfies the demands that users place on it. It can be measured in terms of user satisfaction with, and the amount of use of, library services and products. Attributes of use include purpose of use as satisfying various needs (e.g. professional development needs and work-related needs).

- **The impact** of a library is how and to what degree the target population intended to be served is being served. Impact is partially determined by the extensiveness (or market penetration) of the library’s services, but, in a departmental context, may be partially determined by the purposes for which the library is used, and the extensiveness of use to contribute to particular purposes and goals.

3.2.4 Performance Measurements and its Relation to Mission and Goals

Performance indicators must relate to the library and institutional goals. The need is to integrate strategic planning, goal formulation, and performance assessment into management information systems. Library management needs to focus on the key issues of concern as determined by the institute/organization management and library users. Therefore, the library’s service goals must support institute goals. This can be achieved by integrating relevant library staff into the institute’s planning efforts at all levels – planning units, board of study, etc. Then only will the library be able to set objectives which are in support of and influenced by the institute.

The Australian government report (1990) on library provision in higher education asserts that “to meet the demands of the future, a strategic planning process is required which can be linked to continuing measurement of inputs and performance.” Strategic planning is a process which provides a continuing systematic means of managing change and monitoring performance.

R.M. Kanter (1981) reviews the measurement of organizational performance and cautions that “it may be inadvisable to search universal, objective performance criteria centering around goal attainment because they tend to (1) replace larger goals and become the standard that motivates organizational behaviour, and (2) favour shorter-term over longer-term criteria”
Institutes may have many goals, sometimes they are inconsistent and incoherent and also at variety of levels. It is difficult to determine measurement levels and therefore, measures may not be predictors of goal achievement. Johnes and Taylor (1987) found that “the most significant predictor of degree of quality was the proportion of institutional funds spent on the library,” but this is not a simple direct relationship and not a substitute measure of the general wealth of the institute.

Performance measures should answer the following:
- relation of services to the institution’s goals and priorities;
- extent of achievement of library objectives during the year;
- effects of contingencies on library priorities;
- constraints affecting library performance and
- issues relating to budgets and staff development which need to be addressed within the institution.

3.2.5 Initiative for Performance Measurements

Libraries have been demonstrating their performance and service value through performance measurement and metrics since inception of the public libraries in the eighteenth century. According to White (2008), although “there have been many attempts and variations in the efforts to develop library performance measures, little progress has been made to date in establishing a systematic, universally accepted performance assessment system that effectively addresses all the queries of qualities and cost accountability”

Performance measurement had little impact on libraries until economic conditions necessitated closer control of resources and justification of services. Since 1980s, a number of manuals have been published offering practical guidelines on how to evaluate library services. The focus has mainly been on service-oriented measures and indicators. Evaluation of costs and internal processes is difficult for libraries. It has promoted discussion and simulated ideas on performance measurement for the libraries. The initiative for developing the techniques has so far come from the following sources:
1. International Standards Organization (ISO)
2. International Federation of Library Associations (IFLA)
3. National or Professional level, where government ministries or professional library associations work cooperatively with libraries to develop techniques
4. Local level, where an individual library or a group of libraries investigate the subject to develop techniques relevant to the situation

3.2.5.1 Five Laws of Library Science

The Five Laws of Library Science written by Dr. Rangnathan (1931) guide decisions on what should be evaluated, by what criteria, and by what methods. According to Lancaster (1988), “These laws provide a fundamental statement of the goals that information services should years ago have strived for, and they are as relevant today as they were fifty years ago.” Even today, they are in a highly concentrated form and influence the library professionals to achieve better and better.
The first law is “Books are for use”. This implies that a library must evaluate collections and services in terms of the needs of users. The entire concept of the library is as an interface between users and resources.

The second law, “Every reader his book,” relates directly to accessibility. It is important that the item needed by the user must be available. How much is found (success) and how much is not found (failure), can be identified. Here it is not enough that the item needed by the user is owned by the library, it must be available when user needs it. Online access is replacing access through ‘ownership’ and therefore, Library resources should be evaluated by ‘access’ rather than ownership.

The third law, “Every book its reader,” says that a library should give more active information service making users aware of new arrivals/publications of possible interest to them. Here, the library is evaluated in terms of its ability to inform users about the materials which are of potential use to them.

The fourth law, “Save the time of the reader,” speaks about the efficiency of the library. In the evaluation of the library services, the time of the user must be given weight. The time of user cannot be considered as free, as the time they spend in the library in searching for material could be spent in more productive ways. In case of the Scientist it is true.

The fifth law, “Library is a growing organization,” indicates that the library must be willing to adopt a new changing environment – social conditions and technological developments as well as the changing needs of the users. Evaluation of the library implies examining how long the library takes to adopt innovation, including new publication forms.

3.3 MEASURING PERFORMANCE MEASUREMENTS IN DIFFERENT TYPES OF LIBRARIES

Library standards are essential for evaluating library services. There are standards for National Libraries, University Libraries, Academic Libraries, School Libraries, Public Libraries, and Special Libraries. The standards for different countries for the same kind of libraries are also available. But it brings out the common ground that standards everywhere represent the principles of good librarianship and cannot vary greatly according to the types of the library.

3.3.1 University Libraries

It is not difficult to write the desirable features of university and college libraries, but it is really difficult to mention quantitative library standards for such libraries, which are concerned with large academic and research work. There are standards for universities.

Each university library system is unique and therefore should determine its own criteria for performance and evaluation. Standards are needed and important as well; however, they cannot be equally applicable and useful to all universities. These standards are not a series of expectations or prescriptive sets of figures. They set forth the process by which expectations may be established, and enumerate the topics that should be addressed in the evaluation of university library performance.
The initial ‘Standards for University Libraries’ were adopted by Association of College and Research Libraries (ACRL) in 1979. Mostly all the university libraries have their own core performance standards in each country.

Few University Library Standards:
2. Leeds University, Library Standards
3. Central Queensland University, Library Standards

3.3.2 College Libraries
The first Association of College and Research Libraries (ACRL) standards were for college libraries and were published in 1959; two-year college standards were published in 1960. With the introduction of outcomes assessment in the 2000 edition of the College Library Standards, and regional accrediting association’s emphasis on information literacy, librarians are increasingly responsible for assessing student learning that results from interaction with library services and instruction. The Association of College and Research Libraries has drafted a single comprehensive standard for all libraries in higher education to replace the three current general standards written for two-year, four-year, and university libraries; final approval is expected in 2004.

Few College Library Standards:
1. American Library Association, College Library Standards

3.3.3 School Libraries
Quality school libraries are a catalyst for increased student achievement and lifelong learning. There is a need for closer integration of the work of the library into the work of the school. The strength of a library is partially determined by the availability of resources in a variety of formats. Balance among and integration of traditional and electronic resources provides an optimal information environment. There are signs of an increase in the number of standards documents in this field due to changes of the role and greater importance of the school libraries in an ever-changing educational scene. There are a number of standards and handbooks published for the school libraries.

Few School Library Standards:
- Standards for Information Literacy and School Library Programmes - Colorado
- Beyond Proficiency: Achieving a Distinguished School Library Media Programme - Kentucky Department of Education. This is in PDF format.
3.3.4 Special Libraries

Special libraries often form a bridge between other academic libraries and R & D Libraries. The International Standard for library statistics defines a special library as follows: “An independent library covering one discipline or a particular field of knowledge or a special regional interest. The term special library includes libraries primarily serving a specific category of users, or primarily devoted to a specific form of document, or libraries sponsored by an organization to serve its own work-related objectives.”

Special libraries are usually highly specific in purpose and this specificity is the problem which underlies the development of standards for them. In the 1960s, the first effort to formulate standards for special libraries started under the direction of Samuel Sass. Several drafts for the standards and procedures were prepared. According to Cowgill and Havilik (1972), “Although empirically based standards for special libraries will have something in common with the standards developed for other libraries, this commonality should not be emphasized or expanded to such an extent that special libraries are evaluated upon this commonality at the expense of other effectiveness in helping to achieve the objectives of their parent organization.”

There is no lack of tested performance indicators, but special libraries will have to consider their special tasks when choosing a set of indicators for their situation. Randall (1965) has cited Bonn in his article “The only thing all special libraries have in common is that they are all different.”

Few Special Library Standards:

1. Australian Library and Information Association has published the guidelines for Australian special libraries

2. The Medical Library Association’s “Standards for Hospital Libraries 2002” have been developed as a guide for hospital administrators, librarians, and accrediting bodies to ensure that hospitals have the resources and services to effectively meet their needs for knowledge-based information.

3.3.5 Public Libraries

Public libraries are required to meet ongoing eligibility requirements to continue receiving the annual library assistance grant. The standards are judged quantitatively in terms of total expenditure, book stocks, etc. The most important thing is that the libraries cater to the
There is no shortage of standard documents for public libraries; there are so many, that choice has to be made between the standards. The purpose of these standards is to promote quality library service to the public, to raise the expectations of library clientele, and to provide an authoritative document to which library administrators and supporters may refer when justifying requests for funds.

Few Public Library Standards:


2. Australian Library and Information Association, Standards, guidelines and benchmarks for public library services in Australia and overseas: a guide to resources

From the literature search it is observed that for many years the National Library has been an active participant in the definition and promotion of national and international standards for the library and information community. The National Library sees it as important to maintain national and international standards activities to ensure that the appropriate standards framework is in place or under development to support its business objectives. National library of Australia and National Library of New Zealand are quite active in the activities of Library standards.

3.3.6 R & D Libraries

An R & D Library is associated usually with the institute which is mainly engaged in R & D activities in their respective fields. The Research Library responds to information inquiries about sustainable development of their specific area. Association of Research Libraries (ARL) is a nonprofit organization of 123 research libraries at comprehensive, research-extensive institutions in the US and Canada that share similar research missions, aspirations, and achievements.

Few Examples of Research Library Standards/Statistics

1. LibQUAL+® is a suite of services that libraries use to solicit, track, understand, and act upon users’ opinions of service quality. These services are offered to the library community by ARL. The programme’s centerpiece is a rigorously tested web-based survey bundled with training that helps libraries assess and improve library services, change organizational culture, and market the library.

2. The Association of Research Libraries (ARL) has published Library Assessment, SPEC Kit 303, which provides an overview of ARL libraries’ current assessment activities and their development.

As the missions and goals of various types of libraries are different, it follows that their outputs and outcomes will also differ. Measures of special & R &D libraries are linked to how successful the organization is in achieving its objectives. Such libraries add value to the quality of knowledge within the organization by acquiring, organizing, and disseminating accurate and timely information. Their outcomes are found in the added values to knowledge
and information within the organization which help to make it successful against its competitors.

Public libraries exist to serve an external agency - the public. Their measures of performance are linked to the societal marketing concept of customer satisfaction.

There are three measures of performance common to all libraries: (1) Efficiency (2) Effectiveness and (3) Benefit.

Several attempts have been made to define library performance and performance indicators. This concept of performance measurement has been taken from Management Science and adopted by Library Science. Performance measurement is an integral part of the management process. It refers to the process of evaluation. In the case of libraries, this refers to an analysis of inputs and outputs relating to the provision of different services. Bruusgaard (1995) had an opinion that “almost every indicator is applicable to almost all types of libraries.”

For any type of library, the staff has to go through the same planning before they start the process of performance measurement. The process of collecting data is almost the same.

3.4 TYPES OF LIBRARY MEASUREMENTS

Constructing an omnibus model that would suit all the libraries has not been favoured among the librarians and is not possible, as each library has its own personality. But according to Buckland (1986), “Although library related values are not universal and unchanging, the change is seen based in cultural forces rather than time. There is little change in mainstream of librarianship” It is the mainstream which is the foundation of the model.

A library as an organization has the following key elements which are applied to the library:

3.4.1 Inputs Measurements

The resources imported from the larger environment (e.g. Staff, Equipment and Materials). Inputs are easy to measure. Input measures indicate the resources that are provided to support operation of the library. Libraries have traditionally used input measures as performance indicators as they are easy to collect and report. Input measures answer questions such as ‘how much?’ and ‘how many?’

According to Rice (1971), inputs are defined as those parameters of the system environment whose variability affects system functioning. Inputs have the following three characteristics:

(1) They are drawn from the environment;

(2) They are directly related to the working of the library; and

(3) Any change – qualitative or quantitative in them affects the functioning of the library.

Input measures are associated with the resources, sometimes called inputs that have been allocated to the library, such as money. This monetary budget is converted into other inputs like staff, information technology infrastructure, facilities and equipment. The library profession has a long history of using input measures, especially when comparing one library to other comparable libraries or when attempting to justify budget increases or when introducing a new service.
Another name for input measure is a ‘capacity’ or ‘potential measure’. A potential measure describes the ability of the library to provide access to the library’s collection e.g. the number of internet workstations. Since 1930s, librarians have been involved in establishing standards for the libraries. These standards were primarily made up of input measures that focused on budgets, physical facilities, and size of collection.

3.4.1.1 Types of Input Measurements

The environment within which a library exists clearly has an impact on the library itself. There are five broad categories of input measures:

Income and expenditure:

Measures in this category focus on the finance of the library. Some commonly used input measures are:

- Total income of the library
- Budget expenditure per capita
- Budget expenditure for acquisitions, etc.

Staff:

Providing the library with a budget allows it to hire staff and provide services, some staff related input measures are:

- Total library staff (Full-time equivalent – FTE)
- Total library staff per capita
- Total no. of other staff
- Total no. of professional qualified staff etc.

Collection: Collection contains materials in variety of formats. It includes:

- Size of collection, no. of titles
- Size of collection, no. of volumes
- Size of collection, by subject area, language
- Growth of collection, no. of titles added annually, etc.

Library Information System

An automated/digital library information system is an important asset since access to network infrastructure has become essential for the libraries. Measures in this area include:

- Total amount spent on maintenance of automated/digital library system
- No. of staff workstations
- No. of OPAC workstations
- Speed of net connection, etc.

Space:

The amount of space provided for shelving, staff offices, and other public service area. Such measures are:

- Total space – Sq. feet
- Space per capita
- Reading area
3.4.2 Process Measurements
Activities that transform resources into a product (e.g. Acquisitions, Cataloguing, Reference, etc.) or services offered by the library.

Process measures are also known as efficiency measures or staff productivity measures. They are reflected in an analysis that will quantify the cost or time to perform a specific task.

Process measures answer the following questions:
- Are we doing things right?
- How much does it cost to perform a specific task?
- What is the best alternative among the options available?
- How much time does it take to perform a task?

Most of the process measures include cost or time and activity components, e.g.
- The cost of ordering per title
- The cost of processing per title
- The elapsed time to receive and process an item

Process measures are designed to help libraries improve operations and to demonstrate the responsible use of funds; these types of measures allow local performance of others. According to Ammons (1997), “Use of staff workload productivity measures on a consistent basis can assist the library in improving service quality and the efficiency of its operations.”

Process measures can be placed in three categories.
- Efficiency: Inspecting the issue of how economical a particular activity is. What is the cost per transaction to provide reference service, document delivery and any other specific service?
- Staff productivity: Focusing on the time taken to complete a task or activity. The time for catalog, time for physical processing, time to receive journal, etc.
- Library information system activity: Related automated system focuses on system reliability of the computer system and network.

3.4.3 Outputs Measurements
The products and services created by the library (e.g. access to materials, online catalogue, answers to reference questions). Output measures are concerned with the results achieved, not the effort or process that is used to produce them.

The use of the library is reflected in output measures. These measures reflect how frequently the library or a specific service is used. The questions addressed to output measures are-
- How frequently is the service used?
- How well is the service provided?
- How accurate was the information supplied?
- How approachable is the library staff member?
- How courteous is the library employee?
- How satisfied is the user?

Output measures are “feel good” measures.
### 3.4.3.1 Categories of Output Measurements

- **Services:** Output measures generally rely on counts and user per capita statistics. Annual circulation statistics and number of reference questions answered are some examples of service-oriented output measures.

- **Quality** based output measures ask customers for an appraisal of their satisfaction with the library. Quality has two important components - what is provided to the users and how the service is delivered.

- **Collection use:** Collection oriented output measures are useful for two reasons. First, the degree to which the library's collections are being used is identified. Second, these measures can assist in estimating how well the collection is meeting the needs of the client.

- **D'Elia and Walsh (1983)** warned that “circulation per capita, a widely used measure of library activity or performance, may actually be an indirect measure of the proportion of the community's population that uses a library and thus should be taken with care”.

- **Library catalogue/portal use:** This is used to find materials. A variety of measures can be gathered to determine the degree to which the finding aid for the library's collection has been used successfully.

- **Building activity:** A library has many activities that are space related, like meeting rooms, conference room, reading carrels.

The following factors may be kept in mind while using output measures according to **McClure (1986) and Van House (1983)**

- A single output measure stresses only on effect of the library activity; several measures provide a more complete picture of the library.

- Output measures reflect services delivered and the use of the library. The archival function of the library is not fully reflected.

- Measurement results are affected by environmental functions. The measurements are best used with other information about the library.

- There is no 'right' or 'wrong' in an output measure, 'high' and 'low' values are relative. The score must be interpreted in terms of library goals.

- Output measures do not themselves diagnose the cause of inadequate performance. They reflect the extensiveness and quality of service outputs, without going into the details of how these outputs were produced.

- Output measure results reflect the interaction of users and the library resources, constrained by the environment in which they operate.

- Output measures do not themselves diagnose the cause of inadequate performance. They reflect the extensiveness and quality of service outputs, without going into the details of how these outputs were produced.
3.4.3.2 Output Measurements of a Library from the Perspective of Users

Amount of use which includes,

- Number of loans
- Number of items used
- Number of users
- Number of visits
- Number of requests
- Frequency of use of stock
- User perception of outputs

User perception of services and activities in regard to,

- Quality
- Timeliness
- Availability
- Accessibility
- Timeliness of services
- Accessibility
- Comprehensiveness
- Scope

User indicated importance, user ratings of importance of,

- Timeliness of services
- Availability
- Accessibility
- Comprehensiveness
- Scope

Purpose of use,

- To support decision-making and policy development
- To achieve the department's goals and objectives
- To support tertiary study
- To support users of non-departmental libraries
- To support non-departmental purposes
- For commercial gain or benefit

Output is an end product of library services and a necessary feature is customer exposure to that service. Outcomes indicate the effect of this exposure on the customers.

3.4.4 Outcomes Measurements

The effect of library outputs on the larger environment (e.g. the degree of library use affects student's learning). Outcomes are difficult to measure.

Rowena Cullen (2002) has mentioned in her book review that “Outcomes assessment, as defined here, is focused on local improvement rather than comparison with peer institutions; it asks how users have changed as a result of their contact with the library and its collections, and what the evidence for this change is.” Assessing the outcome of libraries means assessing
the effect of library services on individual users or user groups:

According to Hughes (1965), "Outcomes are the result of the library use as affecting the individual user."

In the words of Johns and Taylors (1987) "Outcomes are the ways in which library users are changed as a result of their contact with the library's resources and programmes."

Effects on users could be immediate or long-term; the effects could be intended by the library, but they might also be quite unexpected effects; outcomes could be actual or potential, and - although libraries would of course wish to assess positive outcomes - there might also be negative effects of library use. Outcome of libraries can also be shown as constituting an economic value, as well for the individual user as for commercial firms, communities or institutions.

### 3.4.4.1 Assessing Outcomes Measurements

Any assessment of a library's effects is based on –

1. What are the objectives of that library?
2. What is the primary clientele that it should serve?

As of now, there are no tested methods for assessing the different aspects of outcome, but there have been quite a number of projects on this topic. The most evident difficulty is that in many cases the relation between a certain library service or activity and an effect on a user cannot be verified, though it can be assumed. In measuring the library as an entity it is difficult to measure the effect of the library but it is easier to measure outcomes of certain services of the library e.g. offering a children's library.

### 3.4.4.2 Social Impact

To assess the imputed value of library services, e.g. by social audits. It helps find how the library affects the well-being of individual users or the quality of societal life. This includes features like Democracy, Social inclusion, Cultural life, Local identity, Life-long learning.

Methods like interviews, questionnaires, telephone surveys, etc. can be used to assess the value of library services for the individual as direct benefits.

### 3.4.4.3 Economic value
To assess the market value of library services.

This can be done by calculating ‘proxy prices’ – i.e. letting users estimate the economic value of library use when they return the book, by asking them what price they are willing to pay if they found the book useful. The method of assessing the ‘willingness-to-pay’ is used in order to calculate the economic value of the library in total. By calculating proxy prices, the library’s market value can be proved and return on investment is known.

3.4.5 Feedback and Satisfaction-Based Measurements

These suggest telling users that “your library is striving to meet your needs. We need your input. Let us know how we are serving you” and is the best way to know the users’ satisfaction of the library. To get such inputs, survey is the appropriate method.

A user survey that provides information on the following should be designed and implemented:
- Who users and potential users are;
- How and why the library is used (or isn't used);
- What sources are used for library-related information;
- What faculty and students' library-related needs are; and
- How satisfied faculty and students are with the libraries.

The literature on academic library user surveys available at the time of the early 1990s revealed a wide spectrum of applications and uses. Librarians have started assessing their libraries by knowing from the users “how well they are anticipating, meeting, and delighting students and faculty” and the primary focus is on understanding customers' needs, learning quick and clean methods of data gathering and analysis, improving critical processes, and developing the internal capacity to be successful in future.

To transform the work and how it is accomplished, libraries must begin listening and acting on the voices of customers, staff, work processes, and the organization for the purpose of learning new directions and partnering with customers.

George D’Ella and Sandra Walsh (1983) suggested that “user satisfaction surveys are useful for evaluating performance of a library but should not be used to compare presumed levels of the performance for libraries serving different communities.” Using user satisfaction data is complicated by the lack of clarity about what user satisfaction ratings actually measure.

Satisfaction surveys ask the users to assess the quality and utility of library services. If applied in an appropriate manner: a user satisfaction survey allows the library to learn what matters to the users and it can apply this information to improve.

If a library is providing a service that is at a level below what is expected by the user, then the result is definitely dissatisfaction. We can define a user’s satisfaction as:

User satisfaction = Performance – Expectations

Satisfaction surveys may be created and conducted, keeping in mind that the survey will produce a proper result of what we want to measure.

Through such surveys, librarians are able to:
Provide a feedback vehicle for the library users;
Know level of satisfaction with services and resources;
Identify the areas that need improvement;
Establish a benchmark of satisfaction levels for assessing continuous quality improvement;
Know whether changes made from earlier surveys (if done) have affected overall satisfaction levels.

According to Jennifer Cram (2004), “Customer satisfaction assessment is inward and backward looking and generally time-lagged, sometimes severely.” The gaps between users’ expectations and the service actually provided must be reduced.

3.4.5.1 Some Problems with Satisfaction Surveys

1. An individual’s expectations may change. A user might rate a particular product or service very high once; but his perception may change once an alternative is available.

2. Most of the users’ surveys focus on users’ perceptions of service delivery. They rarely allow the users to express clearly about expectations of the service delivery.

3. Generally, users may be reluctant to criticize libraries.

4. Satisfaction data collected using different means (in person or telephone) and that collected using questionnaire are not comparable.

5. A positive question like “How satisfied are you?” may give better level of satisfaction than a negative question like “How dissatisfied are you?”

3.4.6 Extensiveness Measurements

These are ways of measuring the size and characteristics of the area and the population that the library serves. They address questions like - How many people does the library serve? What are their information needs? How many of them are using the service?

- Total service population size: This is the total population which the library is supposed to serve, whether or not it actually uses it.

- Total service population attributes: The service population can be segmented into groups with common characteristics that may affect the use of the library e.g. teachers, public servants.

- User population size (number of users): The user population can be measured in a number of ways including registered users of the library, users of particular services delivered by the library, numbers of in-library users (not necessarily registered users).

- User population attributes, which includes Occupations, Grades within occupational groups, Age, Gender, Geographical location, and First language

- Information needs i.e. number of needs identified and number of needs fulfilled. Needs can be categorized by type of information, type of information material.
3.5 PROBLEMS OF MEASUREMENT EXERCISE

There are many challenges affecting the profession’s abilities to utilize performance measurement effectively. The most noted challenge is the indifference that many library administrators have towards conducting performance measurement. White (2008) has mentioned that “many library administrators not only viewed the performance measuring process and its results with indifference, but actually disliked, under-resourced, and underutilized performance measurement and its resulting information, as it is viewed as a non-beneficial process.” If the library administrator does not value and promote the process, library staff and stakeholders also will not value the process and the result.

Lawes (2002) states that “Many libraries have been measuring so many output measures for so long in so many different ways that staff frequently suffer from a ‘mental paralysis’.”

Due to multiple measurement processes, poor understanding of procedures and interpretation and inability in learning and using new performance measurement processes, staff and administrators both lose interest, focus and energy and as a result, errors occur in data collection and results are not implemented as effectively as they should be.

Most of the libraries schedule performance measurement processes yearly or as needed, and not as ongoing processes, which is also one of the problems as because of this timing factor library administrators react more defensively in conducting and using performance measurements.

Additionally, the following problems have been observed:

1. Library is a service organization. Service is an abstract concept and, therefore, difficult to measure. Newman and Walender (1978) argue that “service of the non-profit organization is intangible and hard to measure.”

2. However, Drucker (1973) does not contribute to this view and says that most business and other organizations operate under mission statements that appear to be non-quantitative and intangible. He argues that achievement is possible against specific targets, both for business and service institutions.

3. The library is a professional organization. It is difficult to measure the performance of a professional organization as compared to an administrative organization. But on the other hand, a library is professionally administered and there is considerable administrative work which can be measured. Every profession develops the standards of efficiency and is in search of excellence.

4. The next difficulty is related to the source of organizational data. Cameron (1978) states that institutions often view themselves and their clients as unique and are unwilling to apply the findings of studies of performance elsewhere. Libraries are in this category.

5. Another difficulty is from the value system. It is an accepted value of the civilized society that libraries must co-exist with other social organizations. Out of this value system, the libraries get established. Since they are part of the value system their accountability is not taken seriously. Expenditure on account of library service is considered as a necessary evil, if it is realized that it does not yield the desired results.
6. Librarians themselves are not much favourable to the measurement exercise. Library training has included a value in the library personnel that there is a total identification of the library and the librarian. Evaluation of the library service is identified by the librarian and the staff with their own evaluation.

7. Users also create problems in undertaking such exercises, especially in the underdeveloped countries where the library habit is weak. The likely finding that there is considerably low use of the library by the clients may be embarrassing, especially to those users whose work demands extensive library use.

8. Modesty is an interesting characteristic of library professionals. This comes out of the nature of the profession. Librarianship is a service profession and associated with knowledge. The traditional value system states that knowledge is accompanied by humility (Vidya Vinayen Shobhate). As a result of this attitude the true picture does not get presented. The investigator has to make special efforts to get a correct idea about the services and other aspects of a library which are of a qualitative nature.

9. Librarians put forward a strong argument that the library is a product of the social environment. This view was experienced while conducting the survey and talking to the librarians. The implication is that librarians can do very little, if the standards of the library services are falling. The library has an intrinsic role in the civilized society. It is primarily the duty of the librarian to see that the library discharges that role. If there are changes in the environment, the librarian has to change the strategies and see that the library survives and becomes more effective. The task is difficult.

Cameron (1978) "Libraries and other information systems are not simple systems. Indeed, they are quite complex from an evaluator's point of view." But one must keep in mind the caution given by Evans (1983) that "although the exercise of the measurement of effectiveness is a difficult one, the librarians must perform it. If the librarians do not, the others will".

Factors that Work Against Development of a Good Measurement Programme for the Library

- Measurements commonly used are too broad;
- Measurements are activity oriented rather than results oriented;
- Work processes are complicated and difficult to separate and measure;
- Short-term results are emphasized at the expense of long-range goals; and
- The measurement system overemphasizes some organizational performance goals at the expense of others.

3.6 LIBRARY PERFORMANCE STANDARDS

3.6.1 Introduction

Paul Evan Peters, Chair of the NISO Board of Directors, 1989-1991, has quoted "Standards provide libraries and librarians with a key method of translating their values into actions."

Standards play a dominant role in every phase. Therefore, the desirability of developing
and attaining standards has always got attention among library professionals and again and again their energy is engaged in this area since long. A number of manuals and kits have already been published which contain extensive lists of performance indicators by topic; these generally include actual measures with instructions for measuring and analysing the data. Library standards are essential when planning library services and subsequently for evaluating them. There are standards for different countries for the same kind of library and also all types of libraries. This is because standards everywhere represent principles of good librarianship, which vary from country to country.

Standards written in one country have often influenced the form and content of standards produced by others and standards prepared by IFLA. Library standards need constant revision because of the changes in information environment and technology.

With the great expansion of library services, deeper interest is shown in many parts of the world in the subject of standards.

3.6.2 Definition of Standards

According to BSI British Standards, “A standard is an agreed, repeatable way of doing something. It is a published document that contains a technical specification or other precise criteria designed to be used consistently as a rule, guideline, or definition.”

Webster’s Third New International Dictionary says, “Standard”, in general, “can designate any measure by which one judges a thing as authentic, good, or adequate. Standard applies to any authoritative rule, principle, or measure used to determine the quantity, weight or extent, or especially the value, quality, level of a degree of a thing.”

The American Heritage Dictionary of English Language defines “guideline as the statement of policy by a person or group having authority over an activity.” These definitions apply to standards in general.

There is a more specific definition of standards for libraries provided by South African Public Libraries quoted by Humphreys (1970) “Library standards may be defined as the criteria by which library services may be measured and assessed. They are determined by professional librarians in order to attain and maintain the objectives they have set themselves. Standards may be interpreted variously as the pattern of an ideal, a model procedure, a measure for appraisal, a stimulus for future development and improvement, and as an instrument to assist decision and action not only by librarians themselves but laymen concerned indirectly with the institution, planning, and administration of library services”

3.7 ORGANISATIONS WORKING FOR THE STANDARDS

3.7.1 International Organisations

3.7.1.1 American Library Association (ALA)

ALA was founded on October 6, 1876, during the Centennial Exposition in Philadelphia. It was created to provide leadership for the development, promotion, and improvement of library and information services and the profession of librarianship in order to enhance learning and
ensure access to information for all. ALA has published documents entitled “standards” and “guidelines” as well as other documents of similar nature entitled “statements,” “rules,” and “criteria.” Only those documents entitled “standards” and “guidelines” have been reviewed by the ALA Standards Review Committee for consistency with ALA policy.

3.7.1.2 American National Standards Institute (ANSI)

ANSI is the organization that facilitates development of American National Standards (ANSs) by establishing consensus among qualified groups. The goal of ANSI is to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.

3.7.1.3 Association of Research Libraries (ARL)

ARL is a nonprofit organization of 123 research libraries at comprehensive, research-extensive institutions in the US and Canada that share similar research missions, aspirations, and achievements.

The ARL Statistics and Assessment programme focuses on describing and measuring the performance of research libraries and their contributions to research, scholarship, and community service. ARL serves in a leadership role in the development, testing, and application of academic library performance measures, statistics, and management tools. Grounded on the tradition of the North American research library environment, the programme provides analysis and reports of quantitative and qualitative indicators of library collections, personnel, and services by using a variety of evidence gathering mechanisms and tools.

3.7.1.4 Council of Australian University Librarians

The Council of Australian University Librarians (CAUL) has a longstanding interest in performance measurement for academic libraries. Annually, it makes a statistical compilation that is published in Australian Academic & Research Libraries and now, that has been extended with the publication of the first three CAUL performance indicators:
1. The Library/Clientele Congruence Indicator Relating to Satisfaction;
2. The Document Delivery Quality Indicator; and
3. The Proportion of Sought Material Obtained at Time of Visit.

3.7.1.5 International Coalition of Library Consortia (ICOLC)

The ICOLC serves participating organizations by facilitating discussion among consortia on issues of common interest and it has published updated Guidelines for Statistical Measures of Usage of Web-based Information Resources. It is intended to provide a practical framework for libraries and vendors in which to deliver usage statistics in the current environment.

3.7.1.6 International Federation of Library Associations (IFLA)

The International Federation of Library Associations and Institutions (IFLA) is the leading international body representing the interests of library and information services and their
users. It is the global voice of the library and information profession. IFLA is an independent, international, non-governmental, not-for-profit organization. IFLA's statistics section aims to promote the compilation and use of statistics both in the successful management and operation of libraries and in demonstration of the value of libraries outside the profession.

3.7.1.7 International Organization for Standardization (ISO)
ISO is the world's largest developer and publisher of International Standards. It is a network of the national standards institutes of 159 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system.

ISO is a non-governmental organization that forms a bridge between the public and private sectors. On the one hand, many of its member institutes are part of the governmental structure of their countries, or are mandated by their government. On the other hand, other members have their roots uniquely in the private sector, having been set up by national partnerships of industry associations.

The name “ISO” is derived from the Greek *isos*, meaning “equal”.

ISO launches the development of new standards in response to sectors and stakeholders that express a clearly established need for them.

3.7.1.8 Library of Congress (LOC)

3.7.1.9 Medical Library Association: Standards Committee Hospital Libraries
The Medical Library Association has developed a guide “Standards for Hospital Libraries” in 2002 and since then, it has been used as a guide for hospital administrators, librarians, and accrediting bodies to ensure that hospitals have the resources and services to effectively meet their needs for knowledge-based information. This is revised as and when needed by the Association.

3.7.1.10 National Information Standards Organization (NISO)
NISO is an ANSI-accredited organization that develops standards specifically for the library, information services, and publishing sectors. NISO is where content publishers, libraries, and software developers turn to for information industry standards that allow them to work together. Through NISO, all of these communities are able to collaborate on mutually accepted standards — solutions that enhance their operations today and form a foundation for the future. NISO standards are available at no cost because of the organizations that support NISO as Voting Members.

3.7.1.11 United Nations Educational, Scientific and Cultural Organisation (UNESCO)
UNESCO collects international data for the purpose of broad national comparisons. It collects its library statistics based on standards outlined by the ISO. It is difficult to obtain
complete statistics, especially from developing countries where there are little or no resources allocated to the libraries.

3.7.2 National Organizations

3.7.2.1 Bureau of Indian Standards (formerly known as Indian Standards Institute)

Modern documentation activity has been carried in India since the 1920s. Systematic and organized establishment of documentation services was stimulated after World War II. Industrial development during this period had emphasized on industrial research.

One of the first agencies was Indian Standards Institute (ISI). The objectives behind it are to prepare, promote and to help their general adoption of standards at National and International levels. It was established in the year 1947. During the same time, International Standards Organization (ISO) had started the formation of a National Documentation Committee in each country; and in India, ISI was approached and a memorandum on the subject was prepared by ISI under the guidance of the Late Dr. S.R. Rangnathan and the First Indian National Scientific Documentation Centre (INSDOC) was set up in the year 1951. INSDOC's main objective is to provide documentary services to national laboratories, scientific research institutions, etc. When a need was felt for standardization in the field of documentation, ISI set up Documentation Sectional Committee under the chairmanship of Dr. Rangnathan for preparing national standards for documentation. Work on standardization in some of the areas of the library like building, furniture and fittings were handled by the sectional committee, BDC 27. The committee has also introduce standards for documentation practice.

Bureau of Indian Standards (BIS) is a National Standards Body of India and covers product quality certification, consumer affairs and development of technical standards.

3.7.2.2 University Grants Commission (UGC)

UGC established a committee on the “Development of University and College Libraries” in 1965 under chairmanship of Dr. S. R. Rangnathan and the commission made recommendations for grants, library funds, book selection and purchase, library staff, library buildings and equipment. Ever since, UGC continues to make comment upon library development. Information and Library Network (INFLIBNET) Centre is an Autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) involved in creating infrastructure for sharing of library and information resources and services among Academic and Research Institutions. INFLIBNET works collaboratively with Indian university libraries to shape the future of the academic libraries in the evolving information environment.

3.7.2.3 National Knowledge Commission (NKC)

It is a high-level advisory body to the Prime Minister of India, with the objective of transforming India into a knowledge society. In its endeavour to transform the knowledge landscape of the country, Library and Information system is the major issue of concern in the focus area of NKC.

Therefore, the commission set up a Working Group of Libraries (WGL) comprising senior library professionals, technical experts and bureaucrats. The WGL was to review the existing Library and Information Services (LIS) and recommend changes which would make LIS
more relevant and need based. The WGL was set up with terms and references and one of these terms and references was “to suggest means of raising standards and promoting excellence in Library and Information Science education including re-orientation of working professionals”. Besides, the WGL went through a series of discussions and visits to review the present LIS scene including information search facilities, available standards and the present services to understand the potential need based relevance of LIS. NKC has suggested the role of a National mission on libraries and one of them is “to set standards for collection, services, and technical processing”

3.8 POPULAR LIBRARY PERFORMANCE STANDARDS

3.8.1 International Library Standards/Indicators

3.8.1.1 IFLA's measuring quality - international guidelines for performance measurement in academic libraries

This concentrates on user oriented and effectiveness measures for academic libraries of all types. It describes in some detail definitions, methods of data gathering and interpretation. In the introduction discussion of terminology, the measurement process, and cost effectiveness are included.

These guidelines drawn up by a working group of the IFLA section of University of libraries and other general libraries. At IFLA conference in Sydney (1988) theme was introduced in form of paper by John Willlemense. In 1989 Paris conference has organized a workshop on performance measures. At the Stockholm conference (1990) has organized an open session on performance measures and after that IFLA has decided to establish a working group for guidelines of performance measurement. The group began to work in 1991 with the following criteria.

- To concentrate on academic libraries
- To include primarily indicators that would applicable in all countries
- To take care that indicators should be applicable to all type of academic libraries
- To measure effectiveness and not efficiency (cost-effectiveness)
- To concentrate of user-oriented indicators
- To include overall indicators as well as indicators for separate activities.

They have limits to around 17 indicators as below:

1. Market penetration
2. Opening hours
3. Experts check list
4. Collection use
5. Subject collection use
6. Document not used
7. Known item search
8. Subject search
9. Acquisition speed
10. Book processing speed
11. Availability

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12. Document delivery time
13. Inter library loan speed
14. Correct answer fill rate
15. Remote user per capita
16. User satisfaction
17. User satisfaction with service offered for remote use

3.8.1.2 CAUL performance indicators
1. The Library/clientele Congruence Indicator relating to Satisfaction;
2. The Document Delivery Quality Indicator; and
3. The Proportion of Sought Material Obtained at Time of Visit.

3.8.1.3 ISO - TC 46/SC 8 : Quality - Statistics and performance evaluation

Published standards

1. ISO 2789:2006 : Information and documentation - International library statistics
ISO 2789:2006 specifies rules for the library and information services community on the collection and reporting of statistics. How one cab decide to define and count the different kinds of user? How one can classify the different document delivery possibilities? Such choices are strategic and express identity. ISO 2789 tries to answer these questions. Therefore, one of the important sections of the standard - and perhaps the most important is the definition section, because one can count correctly only when it is defined precisely defined. ISO 2789 has more than 100 definitions split up into 6 families: libraries (different kinds of libraries or administrative units), collections, use and users, access and facilities, Expenditure and library staff. The set of definitions is very consistent. According to Renard (2007) "Up to a point ISO 2789 could be used only as a lexicon: not a roadmap, but a technical guide for certain situations."

ISO 11620:2008 specifies the requirements of a performance indicator for libraries and establishes a set of performance indicators to be used by libraries of all types. It also provides guidance on how to implement performance indicators in libraries where such performance indicators are not already in use. The list and descriptions of the performance indicators are also summarized.

It provides a standardized terminology and concise definitions of the performance indicators and contains concise descriptions of the performance indicators and of the collection and the analysis of data needed. It is applicable to all types of libraries in all countries. However, not all performance indicators are applicable to all libraries. Limitations on the applicability of individual performance indicators are also listed for each performance indicator.

ISO 11620:2008 does not specify performance indicators for all services, activities, and uses of the resources of the library, either because such performance indicators had not been proposed and tested at the time of formulation of ISO 11620:2008, or because they did not fullfil the criteria specified.
Standards under development
1. ISO/NP TR 14873 : Information and documentation -- Statistics and quality issues for web archiving
2. ISO/AWI TR 19934 : Information and documentation -- Statistics for the use of electronic library services

3.8.1.4 ARL Measures for Electronic Resources (E-Metrics)
The E-metrics project is an effort to explore the feasibility of defining and collecting data on the use, outcomes and value of E-Resources. The following are the suggested statistics.

1. Count of electronic reference transactions;
2. Virtual visits (sessions) to the library's website;
3. Counts of high-use and low-use web pages;
4. Count of sessions on specific databases;
5. IP addresses for sessions on specific databases;
6. Time per session on specific databases;
7. Turn-aways per time period per specific database;
8. Primary use of selected electronic services and resources;
9. Hours of user training on electronic services by library staff;
10. Cost per session on specific databases;
11. Count of full text downloads per time period per database;
12. File size of full text downloads per time period per database;
13. Count of on-site versus remote sessions per database.

3.8.1.5 EQUINOX: Library Performance Measurement and Quality Management System
This European Commission funded programme for measuring performance in the electronic net-worked environment along side traditional Performance Measurements in a frame work of quality management. The following 14 indicators are suggested.

1. Percentage of target population reached by electronic library services
2. Number of log-ins to electronic library services per capita per month
3. Number of remote log-ins to electronic library services per capita per month
4. Number of electronic documents delivered per capita per month
5. Cost per log-in per electronic library service
6. Cost per electronic document delivered per electronic library service
7. Reference enquiries submitted electronically per capita per month
8. Library computer workstation use rate
9. Number of library computer workstations per capita
10. Library workstation hours used per capita per month
11. Rejected log-ins as a percentage of total log-ins
12. Systems availability
13. Waiting time for access to library computer workstations
14. IT expenditure as a percentage of total library expenditure
3.8.1.6 Cataloguing Descriptions

The use of common cataloguing standards is of major importance in supporting consistent access to library catalogues by users, and in promoting the international sharing of cataloguing data, which greatly improves the efficiency of the cataloguing process.

American Cataloguing Rules - AACR2 was first published in 1978, revised most recently in 2002, and continues to undergo development under the control of the Joint Steering Committee for AACR.

MARC (Machine Readable Cataloguing) standards created in the United States in the 1960s, is a well established standard for the exchange of cataloguing data.

3.8.1.7 System Interconnection Standards

The development of library networks over the next decade will be based on the interconnection of distributed library systems, and the use of client/server technology. The implementation of certain key technical standards will allow particular applications such as searching and interlibrary loan to be managed cooperatively between two computer systems. The three main such standards are:

1. **Z39.50** standard specifies the structures and rules which allow a client machine (such as a personal computer or workstation) to search a database on a server machine (such as a library catalogue) and retrieve records that are identified as a result of such a search.

2. **International Interlibrary Loan Protocol** is designed to support the interconnection of separate computer systems which are managing the interlibrary loan process. It supports the control and management of ILL transactions for both lending and borrowing activities.

3. **Open Archives Initiative (OAI) Metadata Harvesting Protocol** is a low-barrier mechanism for repository interoperability. The Open Archives Initiative develops and promotes interoperability standards that aim to facilitate the efficient dissemination of content.

3.8.2 National Library Standards

3.8.2.1 Documentation and information standards by BIS

BIS has published the Standards under Programme of Work Database, MSD 5: Documentation and Information Sectional Committee. Formulation of Indian Standards on abstracting, indexing bibliographic references, cataloguing and classification, automated information handling systems, transliteration book numbering, book production illustration, printing processes, style manuals, binding and any other aspects relevant to processing, handling and publication of documents.

The following standards are at some extent related to Library Performance.

1. IS 15339:003 - Public Library Guidelines
3. IS 7150:1974 :- Specification for library catalogue and abstract card
Situation in India

The librarian of Institute of Pharmacy, Kalyani Mr. Ghatak, N.C. had mentioned in his paper that “In India—Medical Library Association of India, New Delhi formed a standard in the workshop at New Delhi in 1983, sponsored by The Medical Council of India. It is neither followed nor adopted in any health science library. It is now obsolete.”

In India, Barua (1992) noted in his book that “It is neither possible nor desirable to prescribe a fixed standard of public library service. Prescription of standards of service has no meaning, if it is not backed up by adequate resources, Therefore, talks of minimum standards which are also difficult to maintain all over the country, particularly in the rural areas.”

3.9 DISCUSSION

It is observed that International Standards Organisations like IFLA, ARL, NISO, ISO etc. are quite active in promoting and developing-updating the library performance standards and other protocols.

The profession of librarianship has a long history of activities, relating to the development of library standards. The following three types of standards have been adopted and formally made public.

1. General library standards such as IFLA’s Standards and the various standards adopted by the professional Associations around the world.
2. Rules for activities which should be applied as consistently as possible but which will not be necessarily producing the identical results even when followed. The Anglo-American Rules are one example for this.
3. Technical Standards, specifications for which are strict observance is necessary, if sharing of information is to take place. Standards adopted by the ISO or NISO on such matters as the technical specifications for formal structure, code lists and examples. The MARC for mat is also another example.

In India it is a matter of concern that the methods followed by libraries are very different from one another. No standard procedures have been followed, even by similar types of institutions. Due to this, several resource-sharing programs such as the sharing of cataloging data or database keywords have not been possible. It is impossible to put such a variety of the Libraries into a single framework of appropriate standards. There is no one at present time strong enough to influence the government to develop new formats for support which would lead to new standards for the libraries. No one has taken the initiative to create an acceptable standard for the library and its services/processed, format or even for other activities in India. The Bureau of Indian Standards has created the standard but many libraries are not
even aware of this, and the standards now need to be updated which are now totally obsolete. Many university libraries, public libraries, and special libraries procure the same books, and they are being cataloged independently with local variations.

Therefore it is felt that the responsibility of fixing standards should be left with the implementing authority like INFLIBNET or All India Library Association (ALA). The national-level organizations like Information and Library Network (INFLIBNET) or National Knowledge Commission (NKC) need to take up the creation of a national standards for the libraries and suggest them to BIS and BIS may update the same according to the changing needs of the libraries in India.

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