Chapter- II

A Review of Literature
2.1: INTRODUCTION:

The purpose of this chapter is to focus on the scanned literature on evaluation of collection quantitatively, qualitatively and by use. Review of related literature forms an integral part of any research report. It helps to find out what is already known and what is still known and untested. A careful scanning of the literature on related studies will help the researcher in understanding the studies of similar nature and the methodology followed.

For present investigation literature was studied at two stages. Initial review of the literature was made to get acquainted with the problem area and to define it. An initial search was made of the secondary information sources in the field of library and information science using library literature, library and information science Abstracts, Bibliographies, Glossaries, and Encyclopedias etc.

At the outset to formulate the problem and to check whether the research has completed on the formulated problem. The bibliographies of Association of Indian Universities (1997), Pathak Vijay and Ramaiah (1986), P.S.G. Kumar (1987) have scanned as these cover the research conducted in the field of Library and Information Science.

The website of INFLIBNET was searched for theses database and it was found that no research has been done on “Evaluation of Social Science Collection in Dr. Babasaheb Ambedkar Marathwada University Library.”
In addition to this a few books and large number of articles related to the evaluation of collection have been reviewed.

2.2: METHODOLOGY:


DESIDOC Bulletin of Information and Technology (1997) states about “Collection evaluation and collection development. Collection evaluation can be reviewed in two sense, macro sense where the focus is on the entire collection and micro sense, which focuses on the evaluation of a specific documents or journals going deeper. Three fundamental dimensions in the collection evaluation are seen, ownership, availability, and accessibility. These three dimensions are applicable in the traditional collection.”

The concept of ownership is irrelevant to electronic sources. In this system performance measures are a paramount importance. Beside cost-effective performance, evaluation of collection can be determined through questionnaire surveys, interviews, observation and client-centered method in the light of electronic resources. Client
centered method can be applied in view of dimension of collection availability and accessibility. Now a day’s librarians are trying to develop this method for evaluating traditional library collection. In recent times we can apply evaluation method like checklist, approach, statistics, availability study, standards and formulas. One should keep in mind that the ultimate purpose of collection evaluation is to satisfy the needs of users. In order to achieve this objective we should apply several indicators.

2.3: DEFINITIONAL ANALYSIS:

2.3.1: Social Sciences:

Social Science is a term for all branches of study that deal with humans in their social relation. The encyclopedia of Social Science (1937), defines "Social Sciences as mental and cultural activities of the individual groups."

WEBSTER (2001) defines Social Science as "The branches of science that deal with the institution and functioning of human society and with the interpersonal relationship of individuals as member of society."

Social Science may be defined as all the disciplines, which deals with men in their social contacts. There is no common consensus regarding the scope of Social Sciences.

International Encyclopedia of Social Sciences states, "it is a question to which no final answer can be given since the Social Sciences differ in their scope from one generation to another and also
that what is required only who ever uses the term "Social Sciences" makes clear what he include under this heading." For example Duverger (1964), Friences (1973), Hoselits (1959), Mackenzie (1966) and White (1973) include History, Political Science, Economics and Sociology as the core subject in Social Sciences.

The "World Book Dictionary" defines as Social Sciences scholar's generally in three categories of knowledge:

1) Natural Science and Mathematics

2) Humanities

3) Social Science

The Natural Science concerns nature and the physical world the humanities by the interpret the meaning of life on earth rather than to describe the physical world or society, the Social Sciences focus on our life with other people in groups they include "Anthropology" Economics, History Political Science, Sociology, Social Psychology, Criminology, Law and the science of Law.

The World Book Dictionary (2001) defines Social Science as, "The study of people their activities their customs and their institution in relationship to others, History, Sociology, Anthropology, Economics, Geography and Civics are Social Sciences."

The New International Webster's Comprehensive Dictionary" (2001), defines Social Sciences means "The body of knowledge that relates to man as a member of society or of any component part of society as the state family of any systematized human institution."
Any field of knowledge dealing with human society as Economics, History, Sociology, Education, Political Science, ethics etc.

In the context of the present study the term Social Science includes the subjects Library and Information Science, Journalism, Psychology, Sociology, Political Science, Economics, Public Administration, Home Science and History etc.

2.3.2: Evaluation:

"Oxford English Dictionary" defines evaluation as "The action of appraising or valuing a calculation, or a statements of value, the action of determining the value of (a mathematical expression, a physical quantity etc.)" Webster’s Third New International Dictionary defines evaluation as “To examine and judge concerning the worth quality, significance, amount, degree or condition of apprise rate."

In the opinion of Daniel Evenly (1976), "analysis of the definition refers evaluation to the act or process of determining the value of some thing. The word measurement also means the act of process of ascertaining the worth or quality of something. Measurement and evaluation are two terms. Measurement is description in quantitative terms, evaluation presupposes measurement against a specific standard on yardstick on goal."

Therefore evaluation may be defined as a systematic process of ascertaining the extent, value amount and worth have given thing.
2.3.3: Collection Evaluation:

Mosher (1984) defines collection Evaluation as "Assessment of the utility and appropriateness of a Libraries collection to its Users or programmes." Tauber (1961), Williams (1967), Bunys (1968), Marvy B. Cassita and Gene. L.Dewey (1969), William Webb (1969), Nosher paul. H. (1979) Harry (1958), and Kaula (1964) and Babra Golden (1977) described about the importance of methods and purpose of collection evaluation. Bonn (1974) and Mosher (1984) states that the book collection can be evaluated by both quantitative and qualitative method. Various techniques and approaches are available for collection evaluation. Evaluation of collection cannot neglect collection development. The concept of collection development, which is relatively recent terminology in library science, makes explicit that there has to be planning behind the growth or maintain of collections and that collections at any given time in the future should be the result of development rather than evaluation. The concept implies that collection response to changing conditions is to be a part of a predetermined, definable system of relating the collection to the community, managed by the libraries".

Osborn, "(1980) further states about collection management that, it has been used synonymously with "collection developments, as a comprehensive term including selection, maintenance, and the planning and policy making function."

Hannaford’s (1980) states that "Collection developments is one of the most discussed and still least well known area within

2.4: QUANTITATIVE EVALUATION:

McInnis (1965) defines quantitative methods of evaluating a book collection are based on the assumption that a sufficient quantity of books is valid indicator of quantity. The disadvantage is there in capability to access qualitative factors that are important in the relation ship between in the library collection and the pattern needs."

Orlikowsky and Borroudi (1991) point out a quantitative research methodology is appropriate where quantitable measures of variables of interest are possible, where hypothesis can be formulated and tested and inferences drawn from samples to population. Quantitative methods on the other hand are appropriate when the phenomena under study are social in nature and do not lend themselves to quantification. Typically qualitative methods are used when understanding the cultural context from which people derive meaning is an important element of a study. Quantitative method in a quantitative research observation is reported in aggregate quantitative from formal hypothesis are posed that are tested and either accepted or rejected. This method implies the need for very precise identification and definition of variables and the ability to operationally them in such a way that number can be attributed to
them. Admittedly this is often difficult because many variables may be relevant."

Mosher Paul M. (1979) has laid down the most convenient process of evaluation of collection. This process is strictly related to the planning, selection and pruning of collections. It results into many numbers of benefits like accurate understanding of the scope, depth, and utility of collection, a method to improve library holdings and to focus human and monetary resources on collection areas:

Lancaster (1982) states that collection evaluation is generally considered separately from materials, availability and document delivery. In academic and research libraries in particular collection evaluation depends not only on use but also on other factors, as well since a research collection persist for archival purposes, which are not easily captured by output measures. Major approaches to collection evaluation are both quantitative (size, rate or growth) and qualitative including expert judgment and bibliographies: These are summarized by Lancaster (1988) both the Association of Research Libraries (ARL) and Research Libraries Groups (R.L.G.) have been concerned with the development of method for describing and evaluating research collection. Evaluation of collection by their use and accessibility falls with the scope of output measures. The simplest approach is to measure use by conducting the numbers of items are circulated.

Lancaster (1988) says that quantitative analysis methodologies are primarily based on the size and the growth of the library collection
in different subjects and their sections analysis of actual size, statistical data of circulation and reference section, users query records, and such other records are considerable data recollected, after that analyzed and final result is obtained.

Line (1967) and Hirsch (1959) have categorized possible approaches to collection evaluation, and a comprehensive review has been made by Bonn (1974).

1) Quantitative approach to the evaluation of library collection.

a) Absolute size of collection.

b) Size of collection by various methods of categorization (e.g. subject area, date, language, type of material).

c) Current Growth rate

d) Size in relation to other variables including numbers of volumes per capita and number of volumes per item circulated.

e) Expenditure on the collection, including per capita expenditure and expenditure the collection in relation to the total budget.

2.4.1: Size Of Collection:

The collection evaluation in a University Library virtually depends upon the size of collection. It makes the evaluation possible PIRE J. B. (1969) carried out compilation of junior college books and recommended that for junior college a liberal arts curriculums can be
launched only having collection of 20000 volumes. The professional organization has set the standard norms of at least 20,000 volumes in (1959) and (1960) "The Association of college and research Libraries in the United State" had adopted precise standards of collection for college and junior college.

As stated by Lancaster (1977) "A particular library is unlikely to function effectively if its collection is below a certain minimum size." Williams (1967) has made the additional point that "There is a normally a high correlation between the size of library; its usefulness and the quality of the institution it serves". Jordan (1963) claims a direct correlation between size of a college library and it's ranking in terms of academic excellence.

Gopinathan and Ravichandra Rao (1985) state that the "Development of a good collection is an essential prerequisite of any library and information center. The library efficiency and effectiveness is reflected in its collection development programmes, method for formulating such programmes in turn depend on the techniques for analysis of a collection in as sense it is a performance analysis. We may assess it at the basis of the cost of purchase and replacement, circulation, data hours of accessibility, number of users, citation of documents, available collection in the texts of these technical papers, report and books, depend on the academic research and production programmes of the collection in recent years. Studies on the collection have been made to set norms on the absolute size of collection, size in relation to the variables such as subject, date of publication, language, type of documents, number of volumes
percapita, number of volumes per documents, circulated, growth rate of publication, usage of documents on the basis of circulation statistics, expenditure of the collection.

Detweiler (1986) says that "The best size" public library suggested that a collection of 100000, volumes may be optimum "For a public Library when number of circulation per volumes is the criteria between 50,000 and 100000 volumes. A dramatic increase in circulation per volume added can be observed, but no such relationship is discernible in the range of 100000 to 150000. Above 150000 volumes there are some evidence of a negative correlation between collection size and circulation.

Osborn (1982) states about collection management that it has been used synonymously with "Collection developments" as a comprehensive term including selection, maintenance, and the planning and policy-making functions.


The size of collection creates a source of proportions in its utility the minima and maxima of the size of collection have to be determined for effective library services. It is obvious that collection in a library depends on its most organization and the care the letter bestow on the library. However we can derive the norms to determine the optimum size of the collection.
George Chandler (1966) says that the size of collection is an important aspect of our study. The utility of collection is revealed through its size. The larger the collection the more the information. The users of every test must be satisfied with the size of the collection, the size of the collection must be appropriate, so far the coverage of the subject or subjects. Chandler advocates to reveal that real test of collection depends upon a number of relevant volumes available to the visitor on each topic in every library.

2.4.2: Growth Of Collection:

Piterneck (1968) in his article argues, “rate of growth should be considered in terms of number of volumes rather than percentage increase in the size of the collection.” However, Boumol and Orcus (1973) says that "One obvious reason is the fact that percentage rate of growth tends to be much greater for newer and smaller libraries than for the older larger institution.” Whereas Voigt (1975) ascertains that "Percentage rate of growth" is heavily affected by the weeding policies of various libraries.

A number of investigations have been attempted to determine the adequacy of the collection of an academic library by comparing the holdings. McGrath (1972), Golden (1974) and Jenks (1976) were able to show, for each academic department, the number of circulated books relevant to the department, the percentage of the total circulation accounted for by these books, the enrollment for the departments and a circulation enrollment ratio. However, Golden (1974) related the class numbers associated with a course to the
number of books owned in these classes and to enrollment figures for the course is an attempt to identify strengths and weakness in the collection. Jenks (1976) compared circulation figures with the number of students in each department and with the number of books matching the profile of each department. He also ranked departments according to the use each made of that part of the collection matching its interest.

Bell (1978) proposes a more elaborate formula that takes in to account, for each academic department, the number of faculty members, the number of students at various levels, the holdings matching the department profile, and circulation.

2.4.3: Norms And Standards:

Minimum standards for collection size in libraries of various types have been put forward by different organizations. Including agencies of accreditation. Standards of this type tend to be related to the size of the population served by the library.

Clapp and Jordan (1965) affirm that the adequacy of an academic library collection can be measured by the number of books it contains, but that published standards are not an appropriate basis for determining the size required for minimum adequacy. Minimum size is dependent upon many variables, including size and composition of faculty and student body, curriculum, methods of instruction, geographic location of the campus, and physical facilities.
These statements imply that university libraries are accustomed to measure the numerical adequacy of their holdings against some existing standards.

However, book collection formula of Clapp and Jordan (1965) suggested, basic collection - 50750, Number of faculty - 100, Total number of students - 12, number of major under - graduate subject - 335, Master field offered - 3050, Doctoral fields offered 24,500.

The Association of College and Research Libraries (ACRL) (1986) have included a similar formula, it specifies a core collection of 85,000 volumes, 100 volumes per full time equivalent (FTE) faculty member, 15 volumes per FTE students, 350 volumes per undergraduate major or minor, 6,000 volumes per masters program in which a higher degree is also offered, 6,000 volumes for fields in which sixth year specialist degree exist, and 25,000 volumes per doctoral field.

The Association of Research Libraries (ARL) (1982) As per the norms laid down by ARL/ACRL Standards for University Libraries regarding the size and growth rate of collection. The distribution of collection as per subject and as per format, the rate of expenditure and distribution of fund is scheduled to be followed strictly for developing collection evaluation system.

The University Grant Commission (1968) on the basis of recommendation of the standing conference of national and University Libraries has suggested that an established University Library should
have 5,00,000 volumes. Of books 300 undergraduate 1,000 research students and 500 teachers should subscribe to 3000 periodicals only.

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Dr. S. R. Rangnathan (1965) suggested that a university library should acquire at least 200 advance books, treaties and reference books and 100 learned periodicals for a research department in the university.

2.5: QUALITATIVE EVALUATION:

Lancaster F.W. (1977) in his article “Evaluation of the collection.” States that the book collection can be evaluated by both quantitative and qualitative method. Line and Hirsch among other have categorized possible approaches to collection evaluation and a comprehensive review has been made by Bonn (1974) says the quality of a collection, of relative excellence or it value or worth in the particular situation, has always been difficult to judge objectively.

Golden B. (1974) In his article: A method for quantitatively evaluating a university library collection concludes that quantitative research, while providing valuable information for collection
evaluation, must be supplemented with qualitative evaluation. Berg (1988) sketch out the entire research project in an effort to foresee only possible glitches that might arise. But unlike a quantitative study on evaluation of the design without data is much more difficult.

Bonn (1974) says, “The quality of a collection its relative excellence or its value or worth, in the particular situation, has always been difficult to judge objectively”.

Lancaseter (1977) has stated some approaches to qualitative evaluation of the collections.

1) Impressionistic Method.

2) Evaluation against standard lists.

Lancaster (1988) says that qualitative methodologies are concerned with expert judgment, individuals approach to a particular document, selection through standard bibliographies, knowledge regarding the growth and development of specific subject areas, information on about availability of documents, knowledge about authors and their works, awareness about the information sources etc.

2.5.1: Impressionistic Method:

In impressionistic method collection is evaluated by one or more individuals, subject specialist, librarian or scholars." But it may have value if conducted with individuals, with a sound knowledge of various subject areas and more important of the literature."
2.5.2 Evaluation Against Standard List:

Trueswell (1969) says that one of the most obvious ways of evaluating a library from a more qualitative point of view is to use some standard list against which the holdings of the library can be checked. The standard list may take several forms:

a) It may be generally published list.

b) It may be derived from citation analysis

c) It may be seeking the opinion of experts.

Raney (1933) conducted a study in university of Chicago. He used 200 faculty members for the evaluation of its collection. He reports that more than 400 lists and bibliographies were used in checking the university of Chicago collection.

Coale (1965) pointed out that the strengths and weaknesses of a research collection lie in printed and manuscript primary sources as well as in the important secondary sources, and that check-list usually does not exist for most scholarly research areas. Coale suggests that a large research collection should be evaluated in one subject area at a time, and he described a procedure adopted in assessing, the collection of Latin American colonial history at the Newberry library.

Hirsch (1959) said that additional weaknesses of the list are checking approach lists become dated quickly. Use of standard list may lead to conformity among collection and the special needs of a particular clientele may be ignored.
Bonn George (1974) in his article mentioned the possibility that standard list used to check adequacy of collection may be the very ones that were used earlier to build these collections.

Goldhor (1973) has pointed out a further limitation in the conventional approach to list checking. The titles checked against list in a particular subject area may represent only a small. Percentage of the library’s total holdings in that field, and the checking operation reveals, nothing about the other books held by the library.

2.6: USE:

"Use refers to whether and how often a book, periodical or segment of the collection used. A use study focuses on the material that it used. A use study may or may not differentiated between various forms of use in terms of importance."

Users refers to the person using the book, periodical or segment of the collection, thus in a user study in the individual persons is the unit of analysis."

A collection-centered technique refers to the examination of the collection.

Mosher Paul H. (1980) stated that use studies measures the adequacy of collection by measuring circulation and in - house use of library materials. This method is most familiar in connection with pruning or weeding collections but also forms of evaluating collection utility finding can also be used to indicate collection areas of little or no use which many in turn suggest changes in collection development
policy, acquisition, patterns, in approval plan, profile. Heavy use may also suggest the desirability of higher duplication rates of most used items.

Lancaster (1977) said, "The ultimate test of the quality of a library collection, however is the extent and mode of its use." Evaluation of collection though uses and user studies leads more objective understanding have the scope and depth of collections including strength and weakness.

Dorthy Christiansen C (1983) prepared draft statements on this. The purpose of these documents is to provide librarians and other with a summary of various types of method to determine the extent to use books, journals and other library materials. It aims to identify methodologies for use and users studies as a tool for collection evaluation and to identify merits and demerits of different methodologies. The collection is always therefore research instruction; recreation, scrupling methodology eventually sampling technique, designing procedures leads to circulation data. We have to undertake a survey of user opinion.

Thirdly the user method turns in success by conducting document delivery test, which determines the ownership of the books by the library. This technique helps users to use each and every book by walking in the library. Shelf availability studies also enables the users to find out the expected collection of books. Evaluations of collection though use and user studies leads more objective
understandings have the scope and depth of collections including strengths and weakness.

Carnovsky (1967) in his article survey of use of library and facilities said that, “Techniques include checking list, catalogues, bibliographies looking over material on the shelf and compiling statistics.” Wilson and Swank in their survey of standard University reported statistics of use are kept for only a few of the University Library and those that are kept are not consolidated and consistently reported. It is impossible for the surveyors to present any meaningful discussion or evaluation of this significant aspect of the library programme.

Christiansen D.E. and Rage Davis (1983) in their articles stated that usage data normally circulation figures are objective and can be employed in making value judgment about individual collection. Moreover, the data is not affected by Latinate peculiarities in the objectives of the college that the library secures like the clap-Jordan formula, use studies can be tailor made for any library rather than forcing the library in to a standards mold. Use studies serve a useful check on one or more of the other evaluation methods. They are also helpful in weeding the collection. An important factor is to have adequate amounts of data upon which to base the judgment. As computer based circulation systems become more common, usage data should become relatively easy and expansive to gather. An example of a recently published study that made extensive use of circulation data is Paul Metz’s landscape of literature use of subject collection in University Library.
Trueswell (1969) has mentioned some problems that are involved in predicting use of past circulation. He points out one way of predicting future use. When a complete record of past is not available proposes alternative heavily used items that are accessible in the library. A library is supposed to have a predictable optimum number of volumes for libraries, core collection. This core collection will satisfy a maximum percentage of users circulation requirements.

Use in libraries emerge many units of analysis and several responses, each of the responses have independent characteristic inspite of depend and variations.

ALA has suggested standard procedure of evaluation of collection through user studies the main type of user studies outlined by ALA is: Use studies measures the adequacy of collection by measuring circulation and In-House use of library materials. The measuring circulation and In-House use of library materials. This method is most familiar in connection with pruning or weeding collection form of evaluating collection areas of little or no use, which may in turn suggest changes in collection development policy, acquisition, patterns, or in approval plan profiles, heavy use may also suggest the desirability of higher duplication rates of most used time.

As a true of other collection evaluation methods use studies are also effective when more than one technique is used. Use studies are also an especially helpful in dealing with serials as a category, both in evaluation and pruning.
Jain (1967) recognizes two major methods for obtaining samples indicative of the use of library books.

2.6.1: The Collection Sample:

Selecting sample, not necessary random, of the total collection, and gathering information on the past use of books in the sample.

2.6.2: The Check Out Sample:

Studying all books checked out form the library during a specified period of time.

ALA has suggested a standard procedure of evaluation of collection through use. The main types of use and user studies outlined by ALA are

1) Circulation studies

2) In-house use studies

3) Citation studies

2.6.3 Circulation Study:

According to Gopinathan and I.K. Ravichandra Rao (1985) "the developments of a good collection is an essential prerequisites of any Library and information center. The Library's efficiency and effectiveness is reflected in its collection development programmes, method for Power."

Formulating such programmes is independent on the techniques for analysis of a collection. In a sense it is a performance analysis we
may assess. It on the basis of the cost of purchase and replacement, circulation data hoarse of accessibility number of users, citation of documents available, collection in the texts of these technical papers reports and books, depends on the academic research and production programmes of the collection. In recent years studies on the collection have been made to set norms on the absolute size of collection, size in relations to the variables such as subject, data of publication, language, type of documents circulated, growth rates of publications, variety of media in which it is published transmission speed of the information contained, usage of documents on the basis of circulation statistics, expenditure on the collection.

2.6.4: In-House Use:

This is measured by counting reselling by asking user to make slip on volume each time is used or by slipping each volume so that slips falls out if the volume is consulted.

Richard Rubin Ed (1982) states that a major library service is the provision of documents evaluation of documents provision has three dimensions. Collection evaluation is concerned with adequacy of the collection. Materials availability studies address the extent to which users. Find, what they are looking for document delivery studies measure how quickly users obtained materials whether from the collection or else where. The last two approaches as offer overlap since both are concerned with to and use of materials.

Possibly including those used with in the library other out put measures includes.
1) The proportion of the collection that circulates.

2) The relative use of each part of the collection.

3) The proportion of users searches that are successful step in the search process (which allow a diagnosis of the causes of search failures.)

4) Potential availability was based not on actual user searches but on proxies such as reference in user publication, or samples of published materials.

5) The time required for users to get materials not immediately available based on actual pattern searches or proxies. Studies of the determinate of collection used beyond output measurement to the investigation of determinate of output measures.

McGrath (1980) argues that the problem of collection developments must be studied in the context of collection use and reviews. The methodologies of circulation studies "fitzgibbons and subranyam" review and consider the collection development application of citation studies in Social Science and technology respectively collection evaluation was carried on 1980 by ARL Mosher discusses why and how to evaluate collection.

2.6.5: Citation Studies:

In this case use does not mean measurement of consultation by the local user population but specific cited use by writers who publish in specific sampling of publication questioning users. In this case a sampling of users by category are questioned on the base of library
materials, either through personal interview or questionnaires and the results are then tabulated interpreted and reported. Record keeping is an important aspect of collections evaluation programmes of analysis are likely to go on over a long period of time, as need concern, funding and staffing dictate and good reports and summaries lead to improvement in methodology and techniques.

Further more it is sometime to repeat one or more collection evaluations after the passage of some years to measure and guide the libraries efforts to improve collections on the basis of finding.

Brodus Robert N. (1980) in his research on "use studies of library collection conclude that there are miles of books that are not borrowed for years and years. He throws light on the problem of use of book specially how much use of books have been done by users." Lawrence and Oja (1980) discovered a statistically significant but weak correlation between the number of times a volume circulates and the number of In-House use it receives. Handle and Buckland M.K. (1978) pointed out that "Books that circulate little get relatively little in house use and there higher the circulation the higher the level of library use." Rubbin (1986) in his article recommends the questionnaire approach because it is relatively easy to administer yet is capable of collecting data on users as well as on materials used. Lancaster (1988) says that the easiest way to find out what items or types of items are consulted in the library is to examine materials left on tables or desks, as this is the method most frequently used. For a particular period of time say 30 sample days, one per week for 30 weeks, such materials are collected at regular intervals each day-say,
10 am to 2 pm, 7 pm to 10 pm their identities are recorded, and they are then returned to the shelf.

2.6.6: Relative Use Method:

Jain (1965) proposed a relative use method for estimating book use. The procedure uses both collection and circulation samples and according to Jain, it is more effective than using either one individually.

Jain (1969) conducted a study on "Relative use" in Purdue University Library and according to him "To study relative use it is necessary to draw samples from (a) the total collection(s), (b) monographs borrowed for home use (H), and (c) Monographs used within the library (I) Each of these samples it than divided in to subset by certain pre-established characteristics: e.g. Age, Language Subject etc.

In this type of analysis only relative use, not absolute numbers is important. The relative use, R for any particular group of books, I, may be defined as:

\[ R = \frac{I}{H + IK} \times 100 \]

Where Hi is the number of monographs from group I borrowed during a specified period. It is the number of monographs from group I used in the library during the sample period, and Si is the total number of monographs I in the collection sample.

The statistics are entirely relative. The proportions will vary, depending on the size of the samples taken from the collection.
Whaley John H. (1981) elaborates that collection analysis require understanding of the needs of users as well as of the content of the collection. Library collection exists to serve the needs present and future of their communities. We must examine the requirements of our user to determine how to shape the collection. John. H. Whaly proposes a method to identify these needs and measure the collection capacity to meet the needs.

Collection development analysis can be done with the help of two factors:

1) The emerge of subject bibliographer to oversee areas of the collection and

2) The insistence on accountability that money spent on materials should be invested wisely. Many libraries appointed subject bibliographers who attempted to identify the materials supporting university teaching and research programme. In many libraries the bibliographer had to play their services for the collection of Humanities or Sciences "Gradually as book production and the availability of materials increased financial exigencies become more controlled and cautions." This way of collection of books was developed. Simple tenuously the responsibility of collection analysis of the librarian also increased.

As the librarian collection went an increasing, there required a proper method for evaluating the collection, as a result there evolved three types of evaluation techniques.
1) List checking
2) Compiling statistics
3) Obtaining user opinion

William Webb (1969) says that a quantitative, qualitative improvement of the collection was imagined as coming in use sampling techniques to compare the library's holdings against standard bibliographies. The statistics would reveal the poverty of the collections in specific areas and thus good the administrator to commit move university funds to the library. When the money arrives chooses one (or) more of the areas sampled and fill in the gaps.

The checklist method of evaluation had been used by many different evaluators and for different purpose. In brief check list area means of approaching the holdings for purposes of comparison. Accreditation committees frequently use checklist in evaluation, particularly for reference and periodical collection. The attitude of such committee is of course, closely connected with the idea of standards for various kinds of libraries."

The committee on standards for college libraries (1959) made the following recommendations."

Library holdings should be checked frequently against standards bibliographies, both general and subject as the reliable measure of their quality. A high percentage of listed titles which are relevant to the programme of the individual institution should be included in the library collection." The short coming of the check list techniques for evaluation are many and the following criticism
appears repeatedly titles are selected for a specific, not for general use, and many more worth while titles are omitted. Titles often have little relevance for a specific library's community. The checklist may ignore list. Inter library loan is not taken into account check list are always approved titles. There is no penalty for having poor titles also checklist fails to take into account special materials which may be very important to a particular library.

ALA (1986) draft of the "Guide to day" "Evaluation of Library collection." was prepared at the June-ALA meeting in New York, which suggested the method of the collection centered measure and use centered measure. Each category consisted of a number of specific methods. Every library exists chiefly to serve the needs of its own community users, there fore a library should have both the quantity and quality of collection. This factor depends upon libraries acquisition programmes, its acquisition policy, and its acquisition procedure and most important is its selection method. Hence an evaluation of libraries collection is an evaluation of its selection method. The collection should be based upon goals objectives, and mission by and large.

George Bonn (1974) in his evaluation of the collection has suggested five general approaches regarding the collection of evaluation.

1) Compiling statistics holdings
2) Checking standard list-catalogue and bibliographies
3) Obtaining opinions from regular users.
4) Examining the collection directly.
5) Applying standards.
The main advantages of compiling statistics method are that statistics are easily available, easily understood and easy to compare but it backs standards definition of unit, clear distinction between titles and volumes, difficulties in counting non-print materials and inconsistency of published data statistics can be compiled on any of the following at growth size, volumes added per year, the Clap and Jordan formula, comparison subject balance, infield request, Inter library loan, request optimum size, circulation etc.

2.6.7: Last Circulation Date:

Trueswell (1964), (1965), (1966) and (1969) has used and described an ingenious procedure for estimating what proportion of the collection accounts for what proportion of the use, The Last Circulation date (LCD) Methods required that one collects only two dates the date on which a book borrowed in a current circulation period and the date on which it was last previously borrowed. "Trueswell" therefore suggested an alternative variable, the last recorded date by plotting these data, we can show the relation of the percentage of circulation (having the last circulation data with in the cumulative time period) to the specified time period say 90% of the documents had a last circulation data within the proceeding 12 months period. So by analyzing the circulation data we can also determine size of the care collection and in turn divide the collection into primary and secondary collection. One is the frequently used documents and the other is the infrequently used others, these two collections.
2.6.8: Citations:

Citations are references to earlier works on a given appearing in a later work on the same or related theme. Citations are made in the form of footnotes and references or bibliographies at the end of a paper or chapter of book. Citations are required for establishing appropriate context and substantiating any argument. The study of citation or references is among the more variable of collection evaluation techniques. It is an excellent, efficient and sensitive method, particularly well adopted to the analysis of research collection and one with which application of appropriate sampling techniques can be economical to carry on.

"Dorthy E. Christiansen (1983) states that the method of citation analysis consists of counting the number of times documents are cited in foot notes, references, bibliographies or indexing and abstracting tools and comparing these figures. It is assumed that items that are relatively heavily cited are likely to be used more than those that are cited little or not at all."

Linda Smith (1981) citation shows two major themes uses citation as tools for the librarian and to analysis research activity, citation and co-citation are part of range of emphatically data available to historians and sociologist of science as well as to librarians citation analysis can be used to gauge the dissemination of a result reported in certain types of Literature.

Gupta D. M. and Nagpal M. P. (1999) in their article citation analysis and its application states that there are some basic concepts or
techniques in the area of citation analysis, which are frequently used for variety of studies.

1) Direct citation

2) Bibliographical coupling

3) Co-citation

Direct citation is another citing any reference. In his scientific paper point out strong probability that it may be related to it. This concept of direct citation has been used by variety of researcher to establish relationship among documents and researchers. The main credit for developing this concept goes to Eugene Greenfield and Direct-jej slda, price although cater provided a conceptual frame work in understanding it.

Bibliographical coupling is concerned with the relation that exist between two documents by virtue of their joint descent from the third that is two papers may be formed, when each member of the groups has at least are reference in common with a given paper (called test paper) and the strength of coupling as determined by the number of citation they have common. "Co-citation is concept on the philosophy that if two citation are cited together in the later literature there is a probability of a relationship among them. Moreover the frequency of occur together the stronger is the chances of relationship between the two so one can say that it is the measurement of the degree of relationship between papers as observed by practicing scientist is in fact there of specialists.

Nisonger (1983) in his research cites a test of two citation checking techniques of evaluating library collection versatile collection evaluation techniques that result in empirical data, can be implemented at a relatively low cost to the library, few techniques have actually been tested to assess the reliability and validity on evaluation tool. Practically the library profession has uniformly accepted no any single technique.

Checking a list consisting of one randomly chosen citation from each article in significant review journal over three-year period.

Buzzard and New (1983) have evaluated the collection of a university library on the basis of reference containing faculty publications or in doctoral dissertations produced in the university. They say that this approach is of doubtful validity. Soper (1976) has produced results to suggest that accessibility influences citation behaviour the more accessible the sources, the more likely it is to be cited.

2.6.9: User Study:

The survey of user's opinion is a very important factor used in evaluation of library collection. It is a planned and organized effort of in-depth study of users need and requirements as well as thesis behavioral overall approach in using the library collection.
Clapp and Jordan (1965) user studies addressed themselves, initially of library use. First investigation of who, what, when and where are beneficial as long as the limitation of such data are understood if a library wanted to know the daily volume and how of use in order to allocate staff time.

The quality of library collection is tested on the basis of extent and mode of use, these are two major methods of obtaining sample for use of library books.

a) The collection sample selecting is in fact a sample need not necessarily random one of the total collection, and gathering information on the past use of books in this sample.

b) The check out sample: studying all books from the shelves without the knowledge of the stuck maintenance staff and whatever has been removed are not necessarily read, it is rather difficult to quantify suggested the circulation data as depicted by the transaction records of documents borrowing could be taken as an indicator of the use of library resources.

A sample circulation statistics suggest that a document borrowed more frequently by the same or different borrower is more useful them the one borrowed less frequently. It demonstrates that circulation data can be used to measure the degree of the library resources.

While studying on the analysis of circulation databased on characteristic of users and document such as sex, status, of users, subject of document etc. give a picture of library's uses, they can be further enriched investigating.
1) The pattern of relative frequency distribution of documents to in
the collection in a given period of time.

2) The proportion of the circulated documents to the total collection
of library.

This type of investigation would involve.

a) An analysis of the data in terms of its usefulness to the library
management.

b) Developing a technique for collecting data and

c) Identifying the types of deduction that can be made from the data.

The following two variables are usually considered in analysing
the circulation data.

1) Number of times of book is borrowed.

2) The last recorded circulation data.

The data collection in relation to the first variable involves the
examination of due date slips attached to books. Such slips are must
often filled up quickly owing to frequent usage of books and remove
form the document in such cases, the new slips attached to them have
only a few entries which may mislead the research workers one can
however preserve the old slips. But then slips have to be organized
properly to facilitate a proper communication of frequency of use.

Edward Evans (1967) user studies to tend and to denote research
project designed to gain insight into how, why, when and where people
seek information and use information as a major resources.
Carnousky L. (1967) stated that "In general survey of college and universities libraries, where surveys have devoted attention to use, they have focused on rules and regulations, physical convenience of facilities, and stimulation of reading through, publicity, browsing rooms, open stacks, and similar matters. They have not been concerned with circulation statistics, and in fact, the statistics for college and university libraries issued by the library services branch do not include them at all. This is a tacit recognition of the fact that circulation is largely function of curriculum and teaching methods, and perhaps also of the realization that the number of books a library circulates is not measure at all of its time contribution to the educational process, in spite of the fact that Wilson and Tauber advocated the maintenance of circulation records. Wilson and Swank in their survey of Stanford University reported that statistics of use are kept for only a few of the university library and those that are kept are not consolidated and consistently reported. It is impossible for the surveyors to present any meaningful discussion or evaluation of this significant aspect of the library programme.

Christainsen D. E. Rge Davis and Scott (1983) in the article “Guide to collection evaluation through use and user studies” say that usage data normally circulation figures, are objective, and can be employed in making value judgment about in individual collection. Moreover, the data are not affected by ultimate particularities, the objectives of the college that the library serves. Like the Clapp-Jordan formula, use studies can be tailor made for any library, rather than forcing the library into a standard mold.
Use studies serve as useful check on a one or more of the other evaluation methods. They are also helpful in weeding the collection. An important factor is to have adequate amounts of data upon which to base the judgment. As computer based circulation systems become more common usage data should become relatively easy and in expansive together. An example of a recently published study that made extensive use of circulation data is Paul Metz's "Landscape of Literature" use of subject in university library.

According to Krishan Kumar (1992) User Studies "refers to any systematic examination of the characteristic and behaviour of the users (and if feasible, of non users) of services and system. Bowden (1990) satisfaction of the users needs is the ultimate objective of the service and system. This is the justification for the existence of any service of system. "User studies" look at the users (individually and collectives) of services and system, with primary aims of users." Users studies focus on information needs. Users and use of information covering a wide range of information sources and channels rather then simply libraries unlike library surveys. It is systematic study on information requirements of users so as to enable meaningful transfer of information between users and information.

There has been over emphasis on how users obtain information, rather than, what they want it for, and what they do with it. Similarly there has been over-emphasis of formal communication (documents) rather than informal (e.g. face to face or telephone conservation). These problems can only be overcome by the use of the sort of holistic, qualitative method." The shift should be towards study of the
role of information in every day life of user, rather than study of more information sources, services and system used by him.

Charles. H. Busha and Stephan P. Harter (1980) in their article says that "Among the questions that librarians have a distinct obligation to pose and attempt to answer are those relating to library effectiveness, including such factor as the choice and suitability of library materials, the nature of library collections in relation to needs of clientele, the use and non use of library collections and services among clientele or poetical clientele of libraries, the efficiency with which information in libraries is stored retrieved and utilized and user satisfaction or dissatisfaction with libraries. Those are all closely related to the role of libraries as social, educational or informational institution, that is to the nature and impact of libraries on there communities whether the community is a university, industry, govt. agency, school other entity." User Studies or often instigated as attempts to understand, justify, explain or expand library usage, and consequently, to gain more knowledge about the process of communication in so far as libraries and their clientele are concerned.

Christansen E. Dorthy and Roger C Davis (1983) in their article "Guide to collection evaluation through use and user studies" says that use and user studies can be conducted for a variety of purpose in collection management. But before effective studies can be designed, there must be clear understanding of the benefits and limitation of specific methodology and of the anticipated results, it is also clear that use and user studies must be used in combination with each other and
with collection centered techniques as part of an ongoing collection evaluation programmes.

Bonn (1974) pointed out that "The main advantages of utilizing users opinions to evaluate the collection are that actual strength and weakness of collection as well as levels and kinds of users needs can be identified. It can be concluded that users are prime factor of library. Therefore for full satisfaction of users, their requirements or needs should always be considered.

It can also be concluded that there are a number of indicators or techniques to evaluate the books and periodicals usage. It can also be stated that there is no one best method to evaluate the usage no method is better than another, all are complimentary to each other. Different indicators approaches from different set of assumption and times if a through evaluation is to be attempted. It will be useful to apply as many indicators as possible.

2.7: CONCLUSION:

The review of literature shows that scanty of literature was available on evaluation of collection. It was also observed from the literature review that, there was no uniform pattern in the standards, guidelines regarding evaluation of collection developments etc. suggested by the various authorities for fulfilling the users requirements. It is necessary to develop uniform guidelines, considering this factors the quantitative evaluation methodology for of collection have been described in next i.e. chapter no. 3.