CHAPTER II
Definition, Purpose and Problems of Measurement of Library Effectiveness

DEFINITION

Several attempts have been made to define library effectiveness. The literature on the topic has been surveyed in the next chapter. The purpose of this chapter is to trace the origin of the concept, to present the definition of effectiveness that has been accepted for this study, to examine similar concepts as also to distinguish them from effectiveness as understood here, to state the purpose of measuring library effectiveness and to highlight the problems that arise in the measurement exercise. Suggestions about data collection and data analysis have also been made.

The concept of effectiveness has been taken from management science where the discussion of organisational effectiveness has prime importance. Even in management science, there have been many difficulties in arriving at a consensus on the definition of organisational effectiveness. Katz and Kahn\(^1\), while discussing the concept of organisational effectiveness, consider several components of organisational effectiveness like organisational efficiency, productivity, organisational survival and conclude that organisational effectiveness is concerned with the extent to which all forms of returns to the organisation are

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maximised. Mott defines organisational effectiveness as the ability of an organisation to mobilise its centres of power for action, production and adaptation. Steers suggests that goals and the measurement of goal attainment are central to the evaluation of effectiveness, if operative goals can be identified, weighted and analysed. J.P. Campbell considers organisational effectiveness as an underlying construct that has no necessary and sufficient operational definition but that constitutes a model or theory of what organisational effectiveness is. Chris Argyris suggests that organisational effectiveness is the balanced or optional emphasis on achieving objectives, problem solving competence and human energy utilization in the organisation. From the literature on the topic of organisational effectiveness three basic models have advanced—the goal attainment model, the behavioural model and the open-system model. In the goal


attainment approach, criteria by which effectiveness is assessed are derived from the quantification of goals and measurement of the organisation's progress towards meeting the goals and objectives. As has been explained below, this approach is not sufficiently useful for measurement of library effectiveness, as it is difficult to quantify the goal of the library. Same difficulty, viz that of quantification, arises in the case of the behavioural approach also which relates to job satisfaction, turnover, group cohesion and a number of group and individual attitudes to effectiveness. This difficulty is particularly prominent in the context of libraries. The open-system model assumes that there are certain non-goal functions of an organisation which must be carried out in order that the organisation may survive and that the organisation must carry out some exchanges with its environment as well. This approach is found suitable by several authors like St. Angels and Wesel to measure library effectiveness. It is so because it allows the uniqueness of the organisation to come into play in the assessment of effectiveness, while dealing with the larger social system of which the organisation is a part. The systems approach supports the idea that there is no single effectiveness measure and that multidimensional approach is to be sought. In the opinion of Elizabeth Aversa:\footnote{Aversa, Elizabeth. "Organisational effectiveness in libraries: a review and some suggestions". Drexel Library Quarterly 17:2 (Spring 1981) 27-45.}

\footnote{The Katz and Kahn view which defines organisational effectiveness as the maximization of returns to the organisation by all means takes into account the frame of reference of the organisation as well as that of the larger system and appears to}
consider the problem of handling of the resources toward future functioning.

Further, according to her

the discussion on efficiency and the difference between it and effectiveness are helpful particularly in sorting out ways to measure internal economic, technical, and operational concerns of the organisations.

The suggested definition in the Wessel-Cohrssen report that the effectiveness is the performance of the tasks that have an end product for external use comes very close to the one formulated for this study and upon which the present model has been developed. Orr argues that the evaluation of library system as a whole must be concerned with how much good the library service achieves rather than how good the library is. According to Oldman and Wills and Oldman, Cranfield study which attempted to assess the impact of library, actually studied the value being derived from library services by the users.


OPERATIONAL DEFINITION

For the purposes of this study a library is termed as effective if it renders services that make perceptible and imperceptible contribution to the output of the users as individuals and of the parent organisation as a whole and if it is established that the quality of the output has gone up due to the library's contribution. As a prerequisite of this it is necessary that the services that the library offers are used by the users. Library use therefore becomes a part of the effectiveness.

It would be necessary to discuss the terms 'perceptible contribution', 'output' of individual as well as of parent organisation and 'the quality of the output' so that the concept of effectiveness is more clear and the model is appreciated better.

LIBRARY AND INFORMATION

Library has been basically created as an organ of the parent organisation. The function of this organ is to deal with information which is very vital for the activities of the parent organisation. Information and decision making are invariably conjoined for obvious reasons. If decisions do not need to be made there is no reason to have information. Conversely, information that is not used (or not intended to be used) to make decisions is like science which is not communicated: pointless. The library primarily deals with the information

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which is recorded; it may be published or unpublished. It has not much to do with the management information, unless it has been specifically asked by the parent organisation to handle it. The information the library handles is in the form of books, periodicals, newspapers, reports and theses, all types of audio-visuals, grey literature such as working papers, pamphlets, handouts, speeches and so on. A lot of information generated through these sources is useful for the organisation in a number of ways. There does not exist an organisation that can do without information. Information coming from these sources is so large in quantity that it can be handled only by an agency specially created for it. That is why libraries have become an integral part of not only institutions like universities, colleges, schools and research organisations engaged in social, scientific and technological research but also institutions like hospitals, government departments, legislatures, industrial houses, newspapers, financial institutions and associations of industrial and commercial organisations. In fact, any productive activity needs organised information services. Only a library is capable of giving such services. It is through the library practices that information can be handled systematically. Information handling consists of several aspects such as identification of the information needs of the parent organisation, identifying the sources of the required information, procuring the information, processing it with a view to taking it to the right person or group of persons who need it. Information thus supplied
is bound to make an impact on the work of a person
or a group. This is the contribution of the library in the
working of the parent organisation. Before examining the
concept of perceptible contribution it would be necessary
to examine the output of an individual and the output of an
organisation.

OUTPUT-INDIVIDUAL

The output of an individual may be a paper,
a book or a report based on the research conducted by the
individual. It may be even the routine teaching in the
classes of an academic institution. It will depend upon the
nature of organisation to which the person belongs. In an
industrial organisation, it may be a market report or an
analysis of the economic environment, or a new industrial
process or design. It may be a news-story in the newspaper
by the reporter or sub-editor. Individual output is
essentially a contribution of the individual made as part of
the institutional activity.

OUTPUT-INSTITUTIONAL

The output of an institution is the collective work
of all or a group of members of the organisation. In the case
of an academic institution, it may be a new training programme,
in the case of an industrial house it may be a new product or
a new marketing strategy, a research institution may start a new
journal or a new publication programme, or in the case of
schools and colleges, it may be the completion of instructional
programmes.
CONTRIBUTION OF THE LIBRARY

What could be the contribution of the library in the individual and collective output of the organisation? The contribution of the library is manifest in 1) the output having a rich intelligible context provided by library resources. (The research papers, for example, are strengthened with citations, the research reports are based on up-to-date and comprehensive data); 2) the output being an advancement on the work done in the past. (This will be indicated by the comprehensiveness of the review made of the literature by the researcher). This can happen only when the library has provided information to the researcher and the researcher has used the information for his output.

The library's contribution to the organisation as a whole can be judged by three things: one, the up-to-dateness of the information gone into the output; two, a wide variety of information (The wide variety may mean that the information covers a wide geographical compass or it may be that it is taken from a variety of sources described above); three, most important characteristic contributing to the quality of the output, the authenticity of the data. The sources of data must be authentic and primary.

In this context, a mention must be made of the bibliographical references cited from internationally reputed journals and from the publications of the institutions which have established their authority in the subject area. The quality of research output will certainly go up if the bibliography appended to it contains the references to the
articles from standard periodicals or to publications from the well reputed institutions.

EFFECTIVENESS AND RELATED CONCEPTS

Having clarified the concept of the library effectiveness it would be useful to examine similar concepts that are in use in the library management literature. These concepts are: performance measures, efficiency, user satisfaction, ability to survive and goal attainment.

Performance measurement and effectiveness

Performance measurement is the measurement of the achievement of an objective, the completion of jobs, the execution of duty or a function, the conduct of an operation. Setting of goals or setting of objectives is necessary for performance measurement. The technique of performance measurement is used for control and to keep the organisation on the track lest it may go off. Discussing performance measures in the context of school libraries, Daniel agrees


with Rothstein according to whom, Measurement is a description in quantitative terms, evaluation is the rating or assessment of effectiveness and worth. Evaluation pre-supposes measurement against a specific standard or yardstick or goal.

Hamburg et al. examine standards in terms of performance measures. They conclude that existing library standards tend to be neither objectives nor performance measures. Rather they are either descriptive rules for proper measurement or quantitative rules for minimum inputs of material, personnel and physical facilities. They are pointed towards the evaluation of library resource inputs, but do not focus on the outputs of library service. However, as Campbell suggests, the standards are essential for effectiveness of the library system and for offering best service to the users. Effectiveness is a much wider concept as it looks into the impact of the performance of the


organisation. Altman and others are of the view that although
the library researchers write about the performance measurement,
they do not equate it with library effectiveness.

EFFICIENCY AND EFFECTIVENESS

Several authors have equated efficiency with
effectiveness. But Katz and Kahn rightly point out that
efficiency is a component of effectiveness. According to

17. Altman, E et al. A data gathering and instructional
manual for performance measures in public libraries.
Chicag (Illinois), 1976.

18. Dougherty, R. "The human side of library effectiveness
IN Approaches to measuring library effectiveness - a
symposium, edited by A.F. Hershfield and M.D. Boone
1972 pp 40-47.

measuring public library effectiveness : some

20. Beasley, K.E. "A theoretical framework for public library
measurement" IN Research methods in librarianship: measu-
rement and evaluation, edited by H. Goldhor, Champaign (Illinois),

planning and evaluating library services. II. Measuring
a library's capability for delivering documents".
Bulletin of the Medical Library Association 56:3
(July 1968) 241-267.

22. Trueswell, R.W. "Some behavioural patterns of library
uses : the 80/20 rate". Wilson Library Bulletin
43:5 (Jan 1968) 458-461.

them, efficiency is the criterion of the internal life of the organisation concerned with its economic and technical aspects. Efficiency is concerned with optimisation of performance to enhance effectiveness. Efficiency reflects emphasis on resource input into library as opposed to the effect of the library on its user. In the library context, efficiency may be related to performance of tasks which are operational and which enable the library to produce its services. This difference has been discussed in more detail in the following chapters.

ABILITY TO SURVIVE AND EFFECTIVENESS

Thinkers like C. Jones and Galvin associate the ability to survive with effectiveness. They are basically the systems thinkers. They argue that if the library is able to prove its utility for the society, it will survive. Survival suggests effectiveness. In this process, the library has also to show its capacity to change as the environment changes. L.E. Bone argues that the library either responds to the changing commitments of the people in the society or be relegated to an

27. Bone, L.E."The public library goals and objectives movement : death, gaps or renaissance" Library Journal 100:13 (1 July 1975) 1283-1286.
ineffective role in it.

Although this is a very convincing argument it would be wrong to identify the survival ability with effectiveness. Even an effective library may not survive due to the uncontrollable environmental factors. The public library service of the erstwhile Baroda state was effective but it could not survive. The major concern of the library management should be to make library more effective once it has come into existence.

USER SATISFACTION

Practically everybody identifies user satisfaction with library effectiveness. According to Merchant, the best measures of the library output, in the last analysis, are in terms of satisfaction and dissatisfaction generated during the library use. Included in it are frustration and anger resulting from interactions with library personnel and processes and from difficulties in locating needed materials and information.


Du Mont and Du Mont have identified two categories of users as well as two categories of needs. Two categories of users are, the actual users and the potential users. They rightly argue that the perception of the users is unpredictable and therefore it is not a very reliable criterion. They also identify two categories of needs: expressed needs and unactivated needs. It is very difficult to be explicit about the unactivated needs. In any case, the satisfaction of the user needs can be identified with efficiency and not with effectiveness.

There is a possibility of a very low level of the needs of the users especially in the societies where there is no spread of education and spread of libraries. In the secondary schools, for example, in this country, teachers are happy with the library which is just a collection of novels and story books. This is because unlike in advanced societies, the teachers have not grown with the libraries and therefore they are not aware of what libraries can do for them.

GOAL ACHIEVEMENT AND EFFECTIVENESS

The concept of the library in pursuit of goals (or synonymously, objectives, purposes or missions) is by far the most common and frequently discussed measure of library effectiveness.32

32. Ibid
Vickery defines effectiveness of a system as the degree to which it achieves its stated objectives. Hamburg et al discuss performance measures in terms of the attainment of objectives. The statements of goals and objectives for various types of libraries that have been prepared are too imprecise to be of any real value to the librarians. Goals motivate the library staff and enhance the library significance as an institution. But they do not shed any light on the relationship between the library processes and contribution of the library to its users. Goals are ideals. Measuring their achievement rests on extremely imprecise measures of the impact of the library on the individual or the society.

As it has been already explained none of these concepts explains effectiveness as is accepted in this study. Effectiveness of the library is the impact the library makes on its environment: user and parent organisation.

**PURPOSE OF MEASURING LIBRARY EFFECTIVENESS**

Having examined these concepts it will now be seen why the need for measuring library effectiveness arises and what are the problems in taking up the exercise and having taken it up, how one should go about completing it. The primary need for the effectiveness exercise arises out of the demand on resources. As the cost of each item is on the increase, the justification of the expenditure on any item is necessary.

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The library is basically a 'spending department'. Although, there is a recent trend to price the services and augment the resources thereby, income generated in such a manner is negligible in relation to the expenditure. The justification of the expenditure can only be given in terms of the returns. This is mainly the concern of the sponsors of the library. They need to be satisfied that purpose for which the library has been created is being served. Secondly, the effectiveness measurement exercise is in the interest of the librarian, who manages the library and is a link between end-users of the library services, the library staff and the sponsors of the library. The librarian is a person who keeps a watch on the effective functioning of the library at regular intervals and takes well in time the corrective measures if they are needed. He does it himself, if he can, or keeps the sponsors informed if he needs their support to take corrective measures. The third group that is interested in measuring effectiveness is the users. They are naturally concerned with the maintenance of the standard of library services. Satisfaction of their needs is one of the criteria of effectiveness. The needs are changing according to the demands of the time. Some library services are likely to become obsolete and unnecessary. The periodic surveys which help to modify the services will certainly help the users. The fourth group is the library staff. The greatest contribution the measurement exercise can make to them is the job satisfaction. It may also give them guidance for further improvement of the functioning of the library.
Periodic review of the measurement exercise serves many other purposes also. It may be undertaken to evaluate the successful services, discontinue the one which is not giving desired results; introduce a new one where a need has been recognised. Such an exercise is needed because there are lots of resources employed to back up a certain service. Library cannot afford to lose valuable resources. The measurement exercise may also help to examine the practices and procedures of the library. Sometimes such an exercise is undertaken with a view to introducing the programme somewhere else. It is convenient to check the effectiveness of a certain new programme before introducing it at some other place. The need for effectiveness exercise may also arise to make a decision in the event of a constraint on resources, on cutting one of the programmes or making a case for not introducing a cut on another.

DATA COLLECTION FOR MEASUREMENT EXERCISE

When the exercise in measurement is to be undertaken it must be kept in mind that a variety of data has to be collected. First of all, it has to be decided as to who will conduct the exercise; the library staff, other staff or outsiders. It has also to be decided as to how the data are to be collected; and how they are to be analysed and finally presented.

The information to be collected relates to the cost involved in one library service or all the services. The investigator has to assess the view of the librarian, library staff and the sponsors of the library. He also has to get the
opinions of the users of library services. In order to evaluate, he has to get the opinion of the practising librarians in other libraries; the opinion of the professional association and resort to the national or international standards, if they are found suitable. It may also be fruitful to take the opinion of the specialists in library and information science from library schools.

**DATA ANALYSIS**

It has also to be decided which design of investigation be adopted: experimental, quasi-experimental, non-experimental, co-relational, comparative or any other. The data could be collected by observation, through a questionnaire, through interview technique, or by secondary analysis. It may be a combination of two or more. If a large number is involved the sampling could be resorted to. But it must be ensured that all precautions needed for a representative sampling are taken.

After the information is collected it must be analysed as per the predetermined method. The findings should also be presented in the same predetermined way.

The question as to who should undertake the measurement exercise is equally important. There are advantages in getting outside help in such an exercise. The major advantage is the dispassionate and objective view which is very crucial and indispensable in such a study. Outside help does not necessarily mean the consultant or expert outside the parent organisation.
It may be those from the parent organisation but not working in the library. Perhaps the best solution could be a team of three persons—one of whom would be from the library and two from the parent organisation.

**PROBLEMS OF MEASUREMENT EXERCISE**

The next part of this chapter considers some problems faced in undertaking and conducting the effectiveness exercise.

1) The first and foremost is the view that such an exercise is an attempt to measure the immeasurable. Libraries have the disadvantage of being doubly immeasurable. Barring the exception of public libraries, most other libraries function as part of the parent organisations. With the exception of industrial corporations most of the parent organisations themselves are the service organisations. Service is an abstract concept and, therefore, it is difficult to measure. Library service, likewise, is an abstract phenomenon. Its contribution is not easily evident. Newman and Wallender argue that the service of the non-for-profit organisation is intangible and hard to measure. Drucker, however, does not contribute to this view when he says that most business and other organisations 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

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Institutions. Yankelovich, however, has a very sharp answer to this argument. Says he,

The first step is to measure whatever can be easily measured. This is okay as far as it goes. The second step is to disregard that which can't be measured or give it an arbitrary value. This is artificial and misleading. The third step is to presume that what can't be measured easily isn't very important. This is blindness. The fourth step is to say what can't be easily measured really doesn't exist. This is suicide.

II) Another argument is that the library is a professional organisation. It is difficult to measure the effectiveness of a professional organisation as compared to an administrative organisation. Though libraries are professionally administered there is a considerable administrative work which can be measured. Every profession develops the standards of efficiency and is in search of excellence. These standards can be used for measurement exercise.

III) Third difficulty is the argument that the value or benefit of the library's output is difficult to measure in economic terms. This is true.

IV) Next difficulty relates to the source of organisation data. Cameron states that institutions often view themselves and their clientele as unique and so are unwilling to apply the findings of studies performed elsewhere. Libraries belong to this category.

V) Another difficulty emanates from the value system.

It is an accepted value of the civilised society that libraries must co-exist with the other social organisations. 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 the library service is considered as a necessary evil, if it is realised that it does not yield the desired results.

VI) Librarians themselves are not much favourable to the measurement exercise. Library training has inculcated 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 his staff with their own evaluation. In the library survey that was conducted for testing the model developed in this work (chapter X), one of the senior librarians typically vehemently reacted to the question on the location of the library. This input was not favourable to his library. Instead of accepting the reality his reaction had been something like this - 'I was not a person responsible for selection of the site. It was selected fifty years ago. Why do you make me responsible for it?' Another respondent, a university librarian, in fact, gave up responding to the questionnaire when the responses were negative. There is a natural reluctance on the part of the librarian and library staff to subject their library to evaluation although it is desirable for survival of the library in the long run.

VII) A similar feeling among the users also creates problems in undertaking such an exercise, especially in the underdeveloped countries where library habit is very weak. The likely finding that there is considerably low use of the library by the clients may be embarrassing to especially those users whose work demands extensive
library use. The low use of the library by the academics and students is no uncommon experience. Although this is a foregone conclusion one would like if it does not get established by empirical evidence.

VIII) Modesty— An interesting characteristic of library professionals that is observed is that they are modest. This comes out of the nature of the profession. Librarianship is a service profession and that too, associated with knowledge. The traditional value system states that knowledge is accompanied by humility. (Vidya vinayen shobhate). This was also experienced while conducting the library survey for this study. As a result of this attitude the true picture of the library does not get presented. The investigator has to make special efforts to get the correct idea about the services and other aspects of library which are of a qualitative nature.

IX) Librarians put forward a strong argument, almost amounting to a consensus, that the library is a product of the social environment. This view was experienced while conducting both the opinion survey (chapter IX) as well as the library survey (Chapter X) for this study. The implication is that librarians can do very little, if the standards of the library service are falling. It is the society that is to blame for it. The attempt in the present exercise is to attack this view. It is this view that brings laxity on the part of everyone that is concerned with the library. It is this view that provides justification for non-performance and inaction. It is this view that creates complacency which not only arrests the march towards progress but fails to stall the fall in the prevailing service which is bound to occur once the progress halts. This is not to refute the
influence of environment totally. As it is argued in the later chapters, it is the changing environment that calls for the necessity of the measurement exercise. The library has an intrinsic role in the civilized society. It is primarily the duty of the librarian to see that his library discharges that role. If there are changes in the environment he has to change his strategies and see that the library survives as also becomes more effective.

The task is no doubt difficult. As Lancaster states

Libraries and other information systems are not simple systems. Indeed they are quite complex from evaluator's point of view.

Yet one must keep in mind the caution given by Evans. He says that although the exercise of the measurement of effectiveness is difficult one, the librarians must perform it. If the librarians do not, the others will. One can find comfort in what Gunnar Myrdal observed in the context of social sciences. He says,

In the absence of research in this field (social sciences) all we can do is to speculate, trying to put in some systematic order the impressions that we have, from our work and its practical impact on society. While this obviously entails the risk of going totally wrong, or, at least,

39. Lancaster, F.W. 1972 pb cit


of only reaching conclusions that are less specific and determinate than the standards we ordinarily try to attain in our work, such a speculation is nevertheless the beginning of the search for knowledge; it raises questions and formulates hypotheses for research.

The present study is an attempt in this direction. Before the actual study is presented it would be in order to review the work done so far in the sphere of library evaluation. The next chapter thus reviews that work.