# FINANCIAL MANAGEMENT

Financial management is not just managing cash or providing funds. It is the study of the principles and practices involved in financial operations of an institutions, industry or state. ‘Finance function’ is the task of providing funds needed for the enterprise i.e., procurement of funds and their effective utilisation. It deals with the problems and procedures of acquiring, distributing and effectively utilising funds, balancing of revenues and expenditure and accounting of the entire transactions for better control and evaluation. In other words, important phases or components of financial management are: – Financial planning – Forecasting of receipts and disbursements – Realisation of funds and revenues – Allocation of funds – Utilisation of funds – Financial accounting – Financial control – Financial auditing The task of finding money, investing funds, managing property and getting the sanction for the budget and all other related matters of finance are the responsibility of the central executive authority of the public library system or the parent organisation to which a particular type of library belongs. However, the library has a major share of responsibility in estimating its own financial requirements, preparing a budget for its functions, activities and programmes, managing the funds appropriated and spending within the specified period, maintaining accounts, and finally preparing a report.

## Principles of Financial Management

For effective financial management, knowledge/ understanding of some basic guiding principles of financial management is necessary and useful. The principles of financial management are:

i) **Effective Control:** Financial management can work efficiently only when controlled properly. The method of financial control should be simple and easy. Control is also necessary for the economical use and channelisation of resources so that there is little wastage and the limited financial resources could be put to maximum use.

**ii) Simplicity**: Procedures for financial management should be simple and easy to operate. Simplicity results in efficiency and economy.

**iii) Regularity and Farsightedness**: Financial management programmes should have a typical timetable so as to acquaint everybody with what s/he is expected to do at a particular point of time. For example, in the preparation of the budget for a library, inputs should come from the heads of sections who would in turn expect cooperation from their staff. The preparation of budget would be time-bound and submitted to the authorities on time so that the budgetary sanctions could be obtained in time to operate it. Similarly, since payment towards subscriptions to current journals should be sent to the publishers during a particular time of the year, the required fund should be readily available by that time. Sticking to a timetable facilitates advance thinking and preparation. Not only present needs but also future requirements should also be kept in view when making provisions for finance.

**iv) Economy**: Economy should be affected in any activity, more so in financial matters. All precautions should be taken to avoid unnecessary expenditure and wasteful use of scarce finances.

**v) Flexibility**: Financial management should keep in mind the virtues of flexibility/ elasticity so as to adjust itself according to circumstances. Only then it can be successful in times of emergency and crisis. But this does not mean that one should take undue advantage of its flexible nature. There are provisions and practices in utilising or diverting funds appropriated for a certain item of expenditure to the purchase of other items like books or equipment. But this flexibility should be within the framework of financial rules and procedures. This type of adjustment usually is done at the end of the financial year when centralised funds are available in other items (or heads).

While above principles are useful in operating and managing finances in libraries, there are statutory financial rules and procedures laid down by the executive authorities and therefore libraries have no option but to follow such financial rules as well. There are other related fields and issues of financial management, library and information professionals need to be kept in mind. They are cost accounting and economics (particularly welfare economics), various tools and techniques of financial management, economics and cost accounting like funds flow analysis, ratio analysis, break even analysis, operating and financial leverages, financial forecasting, capital budgeting, economic theory, theory of production, costing, etc. as they have adequate scope for application in library and information centre management. In practice, as said before, economic management of library services is the weakest area of library management. Little is done to prepare a model and bring about economic management of library services within a system of financial management. Libraries are generally not independent entities and hence financial management and accounting systems of libraries are usually part of larger (parent) organisation. Financial responsibilities usually rest with head of library (librarian) and/ or accounts division of the organisation.

**Financial Management in Service-oriented and Not-for-Profit Organisations:**

Libraries and Information centres are paternalistic, service-oriented and not-for-profit (NFP) organisations. Financial management in such organisations is more complex and challenging than in profit-oriented organisations. Money management in service-oriented and NFP organisation involves systematic planning, getting funds, judicious spending of funds and meticulous accounting. There are certain difficulties in financial management of service-oriented and NFP organisations. Some important characteristics of such institutions together with difficulties are discussed below. The problem becomes more acute if budgets of such institutions are not planned as part of planning of parent body and if they worry more about accounting than planning. Among the important characteristics of service-oriented and NFP organisations, the labour intensive as against machine and technology intensive nature of profit making organisations, lack of inventory (as they will have no inventory of services), dominance of professionals, difficulty in inspecting and measuring the quality of service in advance of delivery (i.e., before rendering the service), etc. are important. Lack of profit measure is quite typical to service-oriented and NFP organisations. Profit-oriented organisations measure their output by amount of revenue earned based on prices charged for goods and services sold. For individual profit centres, revenue is measured by transfer prices. Service-oriented and NFP organisations either should device similar monetary measures of output wherever possible or rely on non-monetary measures. By and large, the output measurement is a practical problem and also a challenge in service and NFP institutions. There is no single generally accepted criterion for measuring success of such organisations. Multiple objectives, lack of relation between costs and benefits and difficulties in measuring performance and comparing performance of different units of the same organisation are some peculiarities of service oriented and NFP organisations. Due to dissimilar functions, the organisational units cannot be compared in service-oriented and NFP organisations. In the absence of monetary output measures, certain non-monetary measures could be employed by service and NFP organisations. These non-monetary output measures can be classified as subjective or objective, discrete or scalar, quantitative or qualitative. Some important non-monetary output measures are: i) Results measures ii) Process measures iii) Social indicators iv) Inputs as proxy output measures

Libraries and information centres have not given adequate attention in devising output measurements. In addition, there appears to be no direct relation between costs and benefits in service organisations. Market forces play a less significant role in service-oriented and NFP organisations. Due to lack of shareholders, there appears to be differences in ownership and power. Consequently there is a tendency for service-oriented and NFP organisations to be political organisations. Historically, the cost accounting and other control techniques were developed for manufacturing (i.e., profit-oriented) companies and hence they are less applicable to service-oriented and NFP organisations. Inadequate management controls have become a tradition in such institutions, which are usually relatively small and operate on a single location.

**SOURCES OF FUNDING/ FINANCE**

The economic and financial pressures are mounting on libraries due to (i) increased cost of information materials; (ii) ever-growing and diverse demands; (iii) adoption of new technology; (iv) need for new space and infrastructure to cope up with new environment; (v) increases in wages and salaries; (vi) interlibrary loan and resources sharing; (vii) new programmes and projects to justify the existence of library. Library finance includes both the funds appropriated to a library and its expenditure. Libraries depend heavily on continuous supply of funds for organising its activities, programmes and services. In dealing with this, ensuring a continuous supply of funds not merely on a yearly basis but over a period of time, i.e., three or five years are very important. Finance plays a very significant role in the organisation and management of any institution, more so in case of libraries which have to acquire and build their collection on a continuous basis throughout the year and even longer. With the increasing costs of books and journal subscriptions, it would be impossible to plan a collection development programme consistent with the needs of users, without an ensured supply of funds. While appropriations are made for the acquisition of books and journals, funding bodies, quite often, overlook or underestimate the necessity of funds for processing the acquired materials and make them available for use by competent persons. Further, regular flow of funds ensures the rhythm and tempo of the user services. These services have to run on a continuing basis. Unless adequate funds are provided for all these activities, libraries will either operate sub-optimally or remain ineffective. The financial support given to libraries is of two types: i) recurring and ii) nonrecurring. The recurring grants are generally given for the purchase of books and periodicals, maintenance of regular services, and for anticipated contingent expenditure. The non-recurring grants are given for specific purposes like construction of library building, purchase of furniture and equipment and sometimes for special collections. The third type of adhoc grant is given on special occasions on recommendations for specific purchase.

## Sources of Finance and Resource Mobilisation

Different types of libraries receive funds from different sources, though some sources such as government grants are common. The greatest percentage of operating funds increasingly comes from public fund raised through taxes. A judicious estimation of funds required has to be done well in advance as funds are required on a continuing basis. Various sources of funds for libraries can be broadly grouped as follows: i) The main source of finance for any library is regular grants from parent body or National/ State Government (some percentage of budget and/ or public fund raised through taxes) ii) Local library cess and support from municipal and other provincial authorities. iii) Adhoc grants from other departments/institutions (public fund), private national agencies, endowments and charitable institutions and certain foreign or international support. iv) Fines and miscellaneous sources: Some libraries impose fines on late return of books as well as for loss or misuse of library cards and books. Income from this source is very meager. As a matter of fact, it cannot be considered as a source of income, because the aim of fine is not to raise revenue but to compel the user to return the borrowed book in time and not to damage or lose it during her/his possession. Moreover, in some situations libraries may not have authority to re-appropriate amount collected as fine or overdue charges for other purposes.

In addition, the effectiveness of imposing fine is questionable as it may create ill feelings among users and discourage use of library. Hence, the policy of levying fine itself is debatable and possible revenue is offset by potential bad effect on public relation. Miscellaneous sources may consist of money received by the sale of old library materials like waste paper, used / withdrawn books, equipment, furniture, etc.

v) Self-generated fund (Fee-based services). Libraries usually render their services on a non profit basis. Charging for library services is fairly a recent phenomenon. Fees, subscriptions, sale of service and miscellaneous revenues earned by the library are ad hoc, non-recurring and often meant for specific purposes with restrictions on reallocation and use. Normally, such (limited) funds are added to the general fund of the parent organisation for allocation through normal budgeting procedure. It is generally objectionable to charge for library services when the mission is to provide free library services to all. Otherwise, public libraries in particular loose their sanctity. It is debatable that libraries can charge for their services, as charge on traditional services may deter use of library. If public libraries charge for all services and membership, like a private library, one may even demand that it has to generate the entire budget required to run the library. Hence it is necessary to continue to provide all traditional library services free of cost. Any fund generation from fee-based services is only restricted to only new services and the fund so generated should be considered as a supplementary fund. Hence, enrolment or membership fee, caution deposit, book lending fee, usage fee are to be considered with extra care depending on the type of library and the mission of the library. However, nominal overdue charges (library fine), recovery charges for not returned books and charges for duplicate cards, etc., are well accepted in most circumstances. Sale of withdrawn books, used equipment and furniture, old newspapers, etc., are obviously realised for library fund. Similarly, charges for photocopy service and computer printouts, Internet charges, etc., are grey areas where library can price appropriately to raise its revenue. The real impact of fee-based services should be in the areas of new services. Increased use of a particular service and changed need among users provide clue for new services. Introducing new services involves set-up cost, but services far outweigh the risk as such new services not only generate revenue but also provide many intangible benefits like enhanced public relations and boosting library image. Hence the primary motive of fee-based new services should not be generating profit or fund but gaining these intangible benefits. Some of the fee-based services could be access to research experience and services, online searching of international databases, document delivery, local and external inter-library loan delivery, internet and other resources charges. Fee-based new services are not only required to be carefully and strategically planned, avoiding duplicating local services or competing with other local information systems but also promoted with appropriate marketing methods. Pricing of these services is a tricky issue as professional research time, local interlibrary loan and document copying, verification of citation information, translation and other documentation services, copyright charges, taxes and tariffs, staff time, etc., are involved. In addition to extensive marketing and pricing structure, care should be taken not to violate lease agreements, licenses and copyright restrictions, service tax, etc. vi) Gifts and donations: In these days of pressing need for money to run library services, all possible sources of funding need to be explored and if necessary, lobbying for fund taking library clientele into confidence is not wrong. Apart from grants from Government, donations and gifts, various fund generating sources have to be tapped and fund raising activities and campaigns have to be launched. One such example is organising book exhibitions and other sales. Gifts and donations are excellent source of supplementing funds for special projects. Citizens are often willing to make significant donations to cover part or all the costs of a new or remodeled library building. However some care should be taken in handling gifts and donations. Firstly, library must have exclusive control over all funds collected, donated or appropriated as library fund. There should not be unusual riders on such funds, i.e., gifts and donations should be transferred unconditionally to treasurer of parent organisation or local authority or a public depository like bank or to financial secretary of the committee or Board. Secondly no gift, donations or grant from charitable institutions be used to justify reducing or replacing the community's commitment to public funding. Otherwise, library runs the risk of disenfranchising and benefactors-donors may cease according grants to library if they see that their efforts are resulting in reduced public funding for the library instead of improving the resources. Gifts and donations need not be in cash. Any donation of building or other investments are much better as they provide fund more regularly in the form of rent on space/ accommodation and interest on investments. Academic Libraries a) University Libraries: University libraries receive their regular funds from the respective universities and special grants from both the University Grants Commission (UGC) and the State Governments. The UGC grants are mainly plan grants, whereas the State Government grants are mainly non-plan grants. However, government grants are not given to the libraries directly, but government gives grants to the university and then the university allots to the library the necessary share out of the same. The University Grants Commission grants are mainly of three types, viz., recurring, non-recurring, and ad hoc grants. Few university libraries charge fees from their student members for the use of the library. A charge or fee for library use is not made without protest from users. These days there is a growing feeling that the university should provide library services free of charge, just as it provides lecture rooms, laboratories, and other facilities.

b) College Libraries: A question often asked as "how much does it cost each year to run a good library?" The amount will vary from college to college, depending on the nature of the curriculum, the quantity and quality of services expected, and the quality of the present collection. The total student strength in a college is another criterion to be taken into consideration while allotting funds for college library. The problems of financing a library of an established college are different from those of a new college. The needs of the former are confined to acquiring materials to remedy weaknesses and to keep the collection up-to-date, whereas the latter must build up a complete basic collection. There are three main sources of funds for college libraries. The principal source is the allocation from the current operating funds of the college. Whether the college is public (government) or privately controlled matters less in this connection than the amount of additional money the library may need during any one budgetary year. Sometimes a part of the 'Amalgamated Fund Collection' is given to the college library for purchase of reading materials. Occasionally some portion of the contingency grant of the college is made available to the library by the Principal. A second source of income for college libraries is grants, individual gifts, and endowments. But this is not so very popular in India. A large number of college libraries throughout the country receive grants from the University Grants Commission. Other sources of income for college libraries are subscription/membership fee charged from the students, and annual recurring and non-recurring grants from the State Governments or the governing bodies of the institution.

c) School Libraries: Promoting good library service in schools depends very much on finance. In the case of primary schools, lower fee rates for library services can be fixed as there will be less expensive books needed for students of lower classes. It is necessary that the entire library fee collected from students should be spent exclusively on books and equipment. At present there are no fixed norms for the provision of finances to school libraries in India. The library fund of school should preferably comprise of fee collected from pupils, equal contribution from the management, matching contribution from government or local body, other gift or special grant that may at any time be received specifically for the library and donations from public. The State Government or any education authority administering the school should meet the initial expenditure on setting up of the school library including cost of new library buildings and initial expenditure on fittings and books covering the basic stock needed as a nucleus for library activities.

Public Libraries: Libraries in general and public libraries in particular are expenditure-inclined (or intensive) and ever growing organisations with no (or least) revenue earning capacity but with recurring nature of service and hence recurring demand for ever increasing funds. Hence a permanent assured source of income with enhanced flow of money is required. UNESCO Public Library Manifesto (1994) prescribed that the local or national government should wholly fund public libraries. Historically public libraries had the fortune of generating funds from government sources and patronage of aristocracy. The learned scholars, trusts and NGOs have always been the main source of funds for public libraries. However, during 20th century, particularly after independence, development of public library is regarded a State subject in India. Hence financial resource through levying of cess as per library legislation of State or/ and grant from State Government has become main source to public libraries. In addition, many public libraries are continued to run by voluntary organisations with or without some subscription fee. With the changed circumstances and environment particularly service orientation and diverse functions expected from public libraries, there is a greater need to adopt innovative and new approaches to explore and generate financial resources from different and new sources. The new circumstances are such that aids/assistance may not uniformly come forth as expected during financial crises and requirement may vary from year to year. Hence it may not be safe to exclusively rely on traditional sources of revenue. Public libraries need to tap all possible sources like cultural associations, private foundations, commercial firms, philanthropists, trade unions, publishers' associations either directly from such institutions or working in co-operation with fund raising associations and organisations, NGOs, important personalities of the locality and others. A strategic plan with well articulated mission of the library to match the donor's needs or the community requirements has to be developed for the purpose. In addition, RRRLF and other Government departments and agencies are well known sources of funds for public libraries in India. Sometimes sources from abroad and its specialised agencies, regional organisations, bilateral aids as well as national and international organisations like UN may also provide fund in cash or kind. Public libraries should not fall behind in generating fund from fee-based services particularly charging for non-traditional new services like demography, product, trend and travel reports, computer prints, reference service, extension classes, training programmes, internet based information services on health, travel, education (scholarship), organising exhibitions, etc. Having relegated the responsibility of running public libraries to local community, the Government should not escape the responsibility of providing adequate financial assistance. Interestingly, the norm in USA is that Local Government, State Government and Federal Government respectively contribute 60%, 25% and 15% of budget to public libraries. Unfortunately in India, there is no national policy on library and information services and no Union library legislation, and contributions of both Central and State Governments to public library funds have been too low. Transferring 'library' from State List to local bodies by constitutional amendments (73rd and 74th, 1992) has not lead to any improvement in the financial support to public libraries. However, public libraries can seek some financial support from, RRRLF, grants from Department of Culture (which runs certain libraries) and grants from National Archive of India (for preservation of rare books). In fact as early as 1958, K.P. Sinha Committee recommended creation of Block Library Fund and Municipal Library Fund through cess, and both Central and State governments should contribute equal amount with provision to gradually increase state contribution to three times the cess amount. On the other hand, in 1985, Prof D.P. Chattopadhyaya Committee on National Policy of Library and Information Services recommended for 6-10% of education budget for libraries and central government to provide fund under plan expenditure. In addition, it is also recommended that public libraries particularly in rural areas should draw resources from other official agencies like National Adult Education Programme, Agricultural Extension Programme, Distance Education Programme, etc. working at that level. It is also suggested that industrial organisations should also provide finance for libraries. It is unfortunate that compared to the target of 6-10% of education budget, States spent far less than 1% of education budget on libraries. Similarly, compared to suggested standard of more than Re. 1 per capita (1988-89), most states spend much less than that even after 20 years (despite substantial reduction of buying power of Rupee over 20 years). As mentioned earlier contributions of both central and state governments to library fund have been too low. The main sources of public library revenue are subscriptions, library cess, grants from government and endowments. Considering library subscription as a source of fund is widely disputed. An equally forceful opposite view is that subscription defeats the whole concept of free public library service advocated by Ranganathan. The report of the Advisory Committee for Libraries, Government of India (1957) also supported the inadvisability of considering subscription as a source of revenue. The Advisory Committee describes such subscription libraries as 'stagnating pools'. Yet, after half a century, a bold and new review of the situation is required in the light of privatisation, private-public partnership and 'pay and use' philosophies of the time. So far, Nineteen states in the country have public library legislation and run public libraries under the statutory system which is not uniform. Tamil Nadu, Andhra Pradesh, Karnataka, Kerala and Goa have provision for raising library cess as a surcharge on certain taxes. These states have what is termed 'pure form' of statutory system where Local Library Authority (LLA) created by the Act receives cess, grants from government, special grants for special purposes, gifts, contributions and income from endowments, fees, fines, etc. and has the responsibility to run libraries and provide library services. Other states have what is termed as 'mixed form' of statutory system, where no library cess is proposed, but the respective governments have made provision for grants-in-aid for public libraries. In addition to substantial grant-in-aid, these libraries called by different names like 'Subscription Libraries', 'Recognised Libraries', 'Grantin-aid Libraries' and 'Affiliated Libraries' are allowed to charge subscription and run by voluntary organisations with gifts and donations. Rest of the States in the country have no legislation (not bound by law/ statuary system to provide public library services), but make direct government efforts as well as provide grant-in-aid to voluntary organisations running public libraries. Experience shows that library cess alone cannot be sufficient to meet the continuously growing needs of public libraries. Besides, the taxable capacities of various local areas of LLA differ significantly, thereby making standard and uniform public library service throughout the country a difficult task. Just like education, public health and other welfare economy measures, ideally public library service, which is declared free to citizens, should be totally supported by regular budget grants from the government. Unfortunately, in many countries including India, this is not the position. As a result finances for public libraries have become inadequate. Only library legislation at the national level can change things for the better. It would be proper for the government to provide for initial expenditure, while recurring demands of the libraries should be met from the proceeds of library cess, etc. Moreover, the local authorities should be encouraged to collect more funds by giving them matching government grants. Endowments, charitable trusts and private benefactions could be another source of public library revenue. In countries like USA this is a common feature, whereas in India it is rare. The financial demands of libraries are recurring in nature, whereas funds from endowments are not so. Hence, endowments, though welcome, should not be taken as a permanent or continuing and adequate source of income. Endowments can best be used for erecting library buildings, acquiring furniture and fittings, etc. Other sources of public library revenue are fees and fines, gifts in cash or kind. The income from these sources is generally very meager, and cannot be considered as a significant source of revenue. Special Libraries Special: libraries get their funds from appropriations made by their respective parent organisations. Whenever the parent body takes up a new project or a programme, which needs library and information support, adequate finances should be provided to the library to set up additional/ special support facilities. Special library is expected to ask for funds for any additional or special services, which are usually examined before funds are provided for such services. In addition, special libraries obtain ad hoc grants from governmental agencies for specific purposes. Of late, special libraries have been seriously considering the ways and means of generating part of their own resources.

## Budgeting and Types

### Introduction

Libraries and information Centres are essentially non-profit making service organisations, attached to one institution or another. Previously, their financial plans were part of the general budget, and as such the library staffs were exempted from preparing their budgets. However, with the recognition of the fact that a budget was both a financial plan as well as a control mechanism, it has become essential for librarians to prepare library budgets. To begin with, the budgets generally reflected objects of expenditure such as, salaries, documents, etc. It was more an "On what budget". The purpose of the expenditure was a secondary consideration, and sometimes, it did not find a place in the budgetary statement.

But, with the growing concern of costs, there developed a tendency to either reduce expenditure or to justify what was being spent. In this situation, the library was hard hit and was subjected to frequent budget cuts, as it was considered essentially a non-profit making, unit. This put a considerable pressure on librarians to justify the expenditure incurred on the libraries. It was surprising that they came out with plans which justified effectively the expenditures.

Thus, it is necessary that librarians become familiar with the principles and practice of financial management. These would include problems of acquisition, distribution/allocation, and utilisation of financial resources. Some of the functions that a librarian has to perform would be determining financial requirements, budgeting the various activities and programmes, managing the funds allotted appropriately and accounting for the same.

## Sources of Finance for Libraries

Libraries require finance on a continual basis for organising their activities, programmes and services. Depending on the type of library, the sources of finance are different. At this juncture, it may be mentioned that there is no consensus among the people concerned whether subscriptions and/or charges should be levied at all. Ranganathan, the librarian *par excellence*, for one was opposed to this idea as he favoured a free service, especially for public libraries, all his life. On the other hand, with increasing concern for costs and emphasis on self-sufficiency in recent times, this position needs to be re-examined. However, while such cost-recovery programmes may be workable in developed countries, it would not be so in developing countries like India. This is because of the fact that the users, in developing countries, cannot afford to pay fees for services rendered by libraries.

## Budget Justification

While a review of past expenditure, use of library statistics, and standards may be useful in estimating the different items of expenditure in a budget, they may not, by themselves, help much in justifying the budget. Therefore, the librarians or information scientists must put in some special effort in this regard. This effort may be in the form of data/information collection, or choosing a particular method of budget construction which will also aid in justifying it or adopting certain tactics.

**Data/Information Collection**

Quantification facilitates justification to a certain extent. Hence, it is suggested that all activities amenable to quantification may be quantified. An increase in document circulation or of reference questions answered or of retrospective bibliographies, state-of-art reports compiled, etc., may be documented for future use at the time of budgeting. The data collected should be graphically presented for maximum impact. One precaution that needs to be taken is that whatever is presented graphically or otherwise has to be precise and concise, apart from being simple. A well-presented graph saves a lot of words.

Secondly, it will be a good practice to maintain a file containing testimonials of appreciation from users who have benefited by the library and information services. Comments from the clientele regarding inadequacy or lacunae in collection, services, etc., or suggestions for improvement needs to be recorded as these would stand in good stead when additional funds for collection development or for instituting new services are requested. In addition, information regarding various types of On-demand services undertaken by the library or information centre (in response to specific queries from users) with the feedback received from the users should be collected and maintained for future use.

If programmed budgeting, especially PPBS, has been the method adopted for budget construction, performance figures regarding the various operational and service activities would be available. These may come in handy at the time of justification.

## Method Adopted in Budgeting

In developing a financial plan for a library/information centre, the librarian should be aware that all he asks for, will not be sanctioned inspite of the fact that the budget might have been constructed on the basis of sound reasoning. Therefore, a technique that can be followed with successful results is to develop a multi-tier budget. In this method, a minimum core level of service without which the institution cannot survive should be developed with corresponding costs. Then, several tiers indicating new programs and services with corresponding benefits should be developed with the necessary cost figures. After this exercise is gone through, the librarian should present its multi-tier budget indicating his preference of a particular tier. A word of caution here-do not be over-ambitious to recommend the top-most tier. It will be turned down much to the disappointment of the librarian. Hence, the librarian should indicate one of the tiers other than the top tier to give the impression to the management that he is rejecting some higher priced alternatives.

Another technique that can be fruitfully utilised is to calculate the amount required to run the present level of service and then compare it with the proposed budget which would include new programmes and services. This comparison would show that the increase in funds asked for, is more for continuing the present level of service than the starting of new services. Inflation may account for a substantial increase in funds accompanied by price increases of books and periodical

subscriptions. If, however, the management persists in not providing additional funds, one can tell them that no increase in budgetary funds would result in decrease in library and information services. This is because the fixed costs like salaries cannot be reduced (as a matter of fact, the fixed costs increase due to increments and other allowances to be given to the existing staff) and consequently the variable costs like book costs, periodical subscriptions, etc. would have to be reduced. Hence, it is hoped that such a comparison would convince the management in releasing the necessary funds.

Other Tactics

The other tactics that can be adopted by the librarian and would help him indirectly in his quest for funds are:

- Inclusion of management and senior personnel in library committees;
- To charge other institutions who make use of the services;
- Maintain good relations with the finance section as this would facilitate obtaining financial information easily. In addition, financial personnel can be useful in the formulation of the library budget;
- Assess the financial climate of your organisation before you make demands;
- It will be a wise policy to adhere to the budget as far as possible. This would be a plus point as far as the management is concerned; and
- Speak to the financial management the language they understand. Therefore, in budgeting demonstrate to them that you have financial sense.

## Conclusion

From the foregoing account, it is clear that no administrative problem is more basic than the preparation of an appropriate budget for the operation of library or information centre. But, for budgeting to be successful it should indicate all the details relating to the expenditure incurred in a library. For this, it becomes necessary for librarians to develop a certain degree of competence in order to justify their financial demands. The problem does not stop there as they have to exercise a lot of constraint and discipline to conform to the actual expenditures incurred to the budgeting statement prepared earlier. Of course, it goes without saying that the final correlation between the budget and the actual financial statement at the end of the year would depend upon "the validity of the data used in the construction of the original budget, the knowledge, experience and luck of the librarian in the manipulation of the data and forecasting the future, and finally, the discipline exercised by or on, the library manager in making the actual expenditure conform to the budget".

**BUDGETARY TERMINOLOGY**

Budget – Budget apart from being a financial plan of the estimated revenues and expenditures for a given period of time, is a forecast of the means of carrying the plan into effect, and also an indicator of the amount of money assigned to a particular purpose.

Types of Budget

- **"On what" Budget**-also known as the Line item Budget. In this budgetary statement, various items of expenditure- salaries ,cost of documents, costs in relation to binding, photo-copying service, maintenance etc.-are listed .
- **Formula Budget**- here, the allocation of resources is based upon some known or assumed relationship between two or more variables which are pertinent to the services to be rendered.
- **Unit-Cost Budget**- It is also called as Performance Budget and is based presumably on what the unit does and what quantity of services it proposes or is required to perform.
- **Lump-sum Budget**-In this type of budget, the organization provides a certain amount arbitrarily. This apportioning is not based on any logic or rhyme or reason. It depends on the whim and fancy of the management concerned.
- **Program-Budget**-In this kind of budget, the proposed expenses are categorized by functions to be undertaken. It is "To what purpose" budget and indicates to the management how the money allocated is expanded. "Planning – Programming Systems" (PPBS) : a technique of establishing library priorities in programmed budgeting of an organisation . Costing of library operations is evaluated in PPBS

aims at analysing expenditure in relation to purpose and relates it to the results achieved.

Components of PPBS are:

- Objectives of the organisation
- Activities related to objectives
- Costs
- Benefits and by-products
- Analysis of alternatives

Managerial advantages of PPBS are:

- Coordinates planning process
- Identifying money spent in contravention to libraries role statement
- Filling the gaps between current and desired levels
- A management tool helping service related changes.

- **Operating-Budget**-The operating budget is a statement of estimated revenues and expenditures for a given period of time. This shows the annual recurring expenditure of the library and would include expenditure in relation to staff salaries, Documents, and other expenditure, such as ,binding, printing,etc.
- **Capital-Budget**-The capital budgets are of the non-recurring type since items in this budget do not find a place, generally,in the annual budgets. They may be considered as part of long-range plans of the organization. The items included under this are the costs in relation to buildings, furniture and equipments which are considered as assets.
- **Balance-sheet Budget**-are those that give information pertaining to the amount spent, and the amount will available for use for achieving particular goals on a

stated date. In other words, it can be said that these budgets serve as aids in the management of the operating and capital budgets.

## Cost

The costs may be described as an amount that has been spent to obtain something. In case of information centres it is the amount required to run the centre. It may be fixed cost, variable cost, direct cost, indirect cost etc.

Costing is the process by which an organisation obtains estimates for producing a product, providing a service, performing a function, or operating a department (Encyclopaedia Britannica, 1974). Cost accounting means measuring an organisation in terms of money or cost. The concept can be represented as follows .

### Costing

Bob Mckee defines costing as a process of analysing costs in detail - often at the level of unit cost (that is, the full cost, in detail, of a single process or action) in order to apportion expenditure to specific areasof activity. According to Jain and Narang (1974) `Cost accounting is the classifying, recording and appropriate allocation of expenditure for the determination of the costs of products or services and for the presentation of suitably arranged data for purposes of control and guidance of management'.

### Why Costing in Libraries?

Any library incurs some expenditure either in terms of money or other resources like manpower, equipment, transportation, postage, etc., for providing services or information products. Costing of them becomes necessary for determining the best product or service at a minimum possible cost. A library provides different services or products. By costing each of them and judging them in terms of its contribution towards meeting the objectives of the library, it should be possible for the library to select the best possible service at minimum possible cost. For this it must know the costs of various components of the library, and those of its various activities, services and products.

Costing of all these is important because:

(1) It helps in determining the productivity of different staff members and in effective supervision of various operations/activities and for controlling them effectively.

(2) It helps in developing performance indicators which would measure the `success' of the service.

(3) It helps in fixing prices for various library services and information products (retrospective searches, SDI services, abstracting services, bibliographies, databases, etc.).

(4) It can be used for comparing costs as a measure of efficiency or in achieving cost effectiveness of services and for deciding alternatives to make the best use of resources.

(5) It helps in convincing funding agencies about the cost effectiveness of the library services and for securing necessary funding for the library. Thus it helps in budget formulation and presentation effectively.

(6) It helps in decision-making about whether to carry out certain functions or services within the system or not.

(7) It helps in forecasting costs in planning a new or reorganising an existing information system.

(8) Cost information prevents from jumping to wrong conclusions.

(9) It helps in identifying priorities and setting objectives and targets for service delivery.

In spite of these advantages library staff and managers are generally not inclined to adopt the costing or cost accounting approach mainly because of. (i) lack of adequate understanding of the costing methods, (ii) apprehension that detailed cost analysis may not support their demands for additional resources for the library, and (iii) the apprehension that costing system will bring in too much of accountability by the library staff. However, by adopting the costing approach, they will find that this approach is helpful in enhancing their efficiency and also in supporting their demands for grant of adequate human and material sources by the authorities.

### Types of Costs

In the costing of library operations and services we generally come across two types of costs: (i) direct and indirect costs and (ii) fixed and variable costs. The first type covers the elements of cost while the second gives the classification of cost according to variability i.e., the behaviour in relation to changes in the level of activity or quantity of production. Direct costs are those which can be directly attributed to a particular activity like the cost of materials, labour, transportation and mailing costs used for the activity. Indirect costs are the overhead costs like those of buildings, electricity, water and other such facilities which are not exclusively used for a particular activity. Similarly, in the second type, fixed costs are those which do not change with the volume of production or size of activity while variable costs are those directly related to the volume of production or quantum of an activity. These two types of costs are again sub-divided into components as shown below:

### Elements of Cost

#### Material Cost

The cost of materials used for providing a product or service is termed the material cost. The direct material costs are those which can be assigned to specific physical units of a product. For example, paper used for the product, the packaging used and so on. The indirect material costs are those which cannot be conveniently assigned to a specific product or service. These may include library collection, equipment, common consumable items, stationery, etc.

### Labour Cost

For preparing the information products or providing services, human effort is needed. The cost of such human effort is called the labour cost. Direct labour costs are the costs of human effort which include the proportionate costs of the staff wages (the costs of their perks may not be included in the Indian situation at present). Indirect labour costs are those costs of staff which cannot be conveniently approved to a particular product or service. Wages of the administrative, stores and finance staff, etc., are examples of this cost.

### Expenses

These can also be direct and indirect expenses. Direct expenses are those which can be conveniently allocated to specific cost centres (these are explained below). Examples are postage and freight charges incurred for mailing information products. Indirect expenses are those which cannot be allocated to cost centres. They include depreciation costs, equipment maintenance costs, electricity, telephones, management and administrative expenses of the organisation, marketing and promotional expense and so on.

### Capital Cost

Apart from the costs stated above, there is yet another cost which has a bearing on the total cost of a product, service or activity. It is the Capital Cost. This includes the cost of items which are used over a long period. They include the cost of buildings, equipment, library collection, furniture, transport vehicles and other fixed assets. For costing purposes, depreciation of these items is to be considered which is grouped under Expense-indirect.

In the Indian situation, if the costs on land, buildings and equipment, etc., or the depreciation on these items is included in the costing of the library services or products, they could be quite costly for the users as the Indian users are still not used to paying high prices for documents or information. Apart from, this managements of Indian organisations in which libraries function, also do not seem to expect returns for the expenditure incurred on these items, at least in the present times. So, Indian libraries, particularly the government libraries may not have to consider the capital costs in costing their services even though the government does want the libraries also to earn some portion of their expenditure through their services.

**Classification of Costs**

Costs can be classified as i) Fixed ii) Variable iii) Semi-variable and iv) Step costs. A cost which varies directly in proportion to every increase or decrease in the volume of output in terms of products or services is known as variable cost.

A cost which does not vary but remains constant within a given period of time and range of activity inspite of the fluctuations in output is known as semi-variable cost or semi-fixed cost. Apart from these, certain costs remain fixed over a range of activity and then jump to a new level as the activity changes. Such costs are called step costs.

**Fixed Costs**

Management salary, administrative overheads of the organisation in which the library functions (the marginal increase due to promotions or certain staff or DA revision are not considered).

**Variable Costs**

Cost of direct material, electricity, wages of library staff, cost of online searches, cost of information products, etc.,

**Semi-Variable Costs**

Depreciation, repairs, etc.

**Step-Costs:** The salary of additional staff member when a particular work exceeds the capacity of one staff member.

Components of Total Cost

**Prime Cost:** This consists of direct material, direct labour and direct expenses. It is known as basic cost.

**Production Cost:** This comprises the prime cost and the costs of indirect material, indirect labour, and indirect expenses of the cost centre (apportioned).

**Office Cost:** This includes office and administrative overheads together with services and distribution cost. This can also be called the total cost of production (Maheswari & MittaI, 1988).

**Total Cost of a Cost Centre:** This includes the prime cost, production cost and the office cost and distribution costs. This usually represents the cost of an activity, a service or a product in a library..

Components of Total Cost of a Cost Centre

Depreciation

The value of capital items like buildings, machinery, library collection, transports vehicles, etc., decreases with time due to wear and tear, and obsolescence. This reduction in value is called depreciation. Calculation of depreciation and including it in the cost structure, helps in recovering the cost of these assets over a period and in effecting replacements for these items in due course of time.

Cost of an Employee

The following formula can be used for calculating the productive days of an employee: Productive days (working days) of an employee per year

D=A-(W+H+L) Where,

D Productive days (working A Annual days (days in one year)

W Weekends

H Holidays

L Leave availed

In the context of a library in a Government of India organisation, assuming an employee has to work 5 day-week, gets 16 holidays, avails 40 days leave, the productive days should be:

D = 365-(104+16+40)

= 205

**Costing Methods**

Different approaches are made by different cost analysts of libraries. Some worked out `unit costs' while some other determined direct costs and indirect costs.

A survey of various approaches made by several cost analysts would reveal that the costing of library activities or services is done based on direct and indirect costs of individual activities or services, and of cost centres. In other words, it means how much it would cost to carry out a single activity like acquisition, classification or cataloguing of a document title or a service like supplying a unit of information e.g. an abstract of a document or an SDI printout, and also what would be the cost of each cost centre. For costing the various activities, products and services in a library through this approach, a step-by-step cost calculation, as described below, may be helpful. Flow charts may be developed for presenting work flow so that all the minor steps are also covered. Work sheets may be designed for collecting data at each step for each calculation. Some of the sample work sheets are given below. These may be modified to suit individual library situations.

**Step-by-Step Costing Procedure**

**Step 1. List the activities and products/services of the library.**

**Step 2 List the cost centres.**

**Step 3: Define cost units at each cost centre**

**Step 4: List indirect costs.**

Step 5: Determine direct costs for each cost centre.

Step-6: Determine summary of costs, cost-centre-wise.

## Cost Analysis

Libraries and information centres are gradually becoming cost conscious. In today's environment of budgetary pressures and financial crunch in libraries and information centres, it has become pertinent to take detailed account of the costs involved in running different services and the alternatives available there of. In this regard cost analysis approaches are becoming very popular. They not only help in analyzing the costs involved, but also the effectiveness, benefit, utility and the feasibility of such systems.

### Meaning of Cost Analysis

Cost analysis is the basic tool of cost study. It is the primary mode of study which helps in carrying out other descriptive and analytical methods of cost studies. Moreover, data derived from cost analyses can be further used for accounting, budgeting, and performance measurement procedures. A sound and convincing presentation of a budget is generally based on underlying cost analysis of different alternatives.

Cost analysis is basically a measurement of monetary or time sacrifice made to achieve certain ends. Cost analysis involves measurement of the resource input to the system, understanding the nature of the work carried out, and the labour time needed to carry out the work. In cost analysis, the analyst isolates those areas of task which are considered relevant to the given end, and on which information is required for descriptive or decision making purposes. Cost analysis includes a number of broad conceptual and operational principles. It takes into account both cost and result (in terms of benefit, effectiveness, utility etc.) of a system as well as its alternatives. This method is very much applicable in library and information centres. The use of this method in library and information centres can lead to a more efficient use of resources, reduce cost of reaching particular objectives, and it can also give an idea as to what can be accomplished for any particular budget or other resource constraint. Policy decisions in the library and information centres must be increasingly based on the cost and results of these decisions.

Before starting cost analysis it is essential to establish the analytical framework. The framework consists of: identification of the nature of the problem; clarification of the alternatives to be considered for analysis; identification of the primary and secondary audiences for the analysis; and selection of the appropriate method of the analysis. At the most detailed level monetary expense incurred is identified on a task by task, or operation by operation basis. It is a very flexible tool, in the sense that almost any part of the system can be scrutinized in detail. For effective cost analysis it inessential to define each and every unit that is being costed. These units are referred to as the cost centre or cost unit.

The steps involved in cost analysis are :

- **Identification and quantification of the process:** the process to be analysed must be named in a manner which will permit isolation of that particular item throughout the accounting process e.g. acquisition process, circulation process etc.
- **Division of the process into smaller component steps:** after identification of the process to be analysed, it is divided into smaller units or components to facilitate analysis, for instance, the acquisition process can be divided into book selection, ordering, purchase, accession etc.
- **Determination of resource requirements for each step:** identification of the resources required for each and every component step is essential for cost analysis purpose. Four resources that are generally associated with any process are - manpower, supplies, supervision and environment. Apart from that another important resource usually needed is equipment. Each resource type has its own typical characteristics that need to be studied thoroughly to see their impact on the cost of the process.

- **Identification of time and volume for a process and relate it to cost:** the process under analysis needs to be quantified in terms of time required or volume of work done in order to relate it to cost.
- **Cost analysis and alternates:** cost analysis involves not only the scrutiny of the activities involved in the process but also the alternate methods of doing the job. This way one can correctly judge the benefits derived from a particular process.

## Cost Analysis Approaches

There are a number of different but related terms or concepts used in the process of cost analysis which are actually different approaches of cost analysis. Important approaches of cost analysis are:

i) cost effectiveness;

ii) cost benefit;

iii) cost utility;. and

iv) cost feasibility.

Though, these approaches are related to each other, they are distinguished by their unique characteristics and are required for specific application.

## Cost Effectiveness Analysis

Cost effectiveness analysis refers to the study of the alternatives in relation to their cost and effects to achieve certain goal or outcome. The focus is, therefore, on the achievement of certain objectives or goals. The cost effective solution is the one which provides maximum output with the minimum cost possible.

Cost effectiveness is generally confused with cost efficiency study. The basic difference between the two is that while cost effectiveness is output oriented, cost efficiency is input oriented. In cost effective study the goal is to maximise output at a given level of cost which may not be necessarily the minimum cost solution. The aim of cost efficiency, on the other hand, is to minimize cost at a given level of output which perhaps may not be the most effective solution in terms of output or performance.

The cost effectiveness approach has various advantages, the most important among them is the fact that it requires the cost and effectiveness data which are easily available in systems like library and information centres. Moreover, it takes into account the alternative solutions for a particular goal, making the study more exhaustive. However, the major disadvantage is that it can take into account only those alternate solutions which have similar goals or objectives. It cannot compare alternatives with different goals or objectives. Moreover, one cannot judge the usefulness of the programme in relation to the benefits derived over the costs involved.

**Cost Benefit Analysis**

Cost benefit analysis is an important tool used by the welfare economists. It refers to the evaluation of alternatives in relation to their cost and benefits measured in monetary terms. Thus it tries to evaluate social costs and benefit of a particular project and helps in deciding whether to go ahead with the project or not. Cost benefit analysis tries to measure the value of cost and benefit of each alternative. The alternative that provides the maximum cost-benefit may not necessarily be the most cost effective solution. The emphasis is more on the social benefit rather than-on economic benefit. Cost benefit analysis is an essential tool for long term decision making as it is not confined to the immediate impact of the production of goods and services.

The advantages of cost benefit analysis are that it helps in:

i) ascertaining if any particular alternative has benefits exceeding its costs;

ii) identifying the set of alternatives with different objectives which have the lowest cost benefit ratio; and

iii) determination of the set of alternatives among different programme areas e.g. education, health, security, etc. having least cost benefit ratio for an overall analysis of investment for the wel i being of the society as a whole.

The only disadvantage of this system is that it is difficult to measure the costs and benefits in pecuniary terms. One may face many difficulties in collecting data and the result may not always be accurate.

Cost benefit analysis is the most appropriate tool for decision making regarding the resource allocation in public welfare services like library and information centres, where the output derived may not be direct and tangible. While cost benefit analysis is a long term approach, cost effective analysis is amedium or short term approach. The cost benefit approach may be used for making a choice between different alternatives and the cost effective approach on the other hand can be used to determine the most cost effective means of production and delivery of goods and services.

### Cost Utility Analysis

Cost utility analysis refers to the study of the alternatives in relation to their costs and the estimated utility derived thereof. While cost effective and cost benefit analysis requires use of quantitative data for decision making, the cost utility approach uses a wide range of qualitative and quantitative data for the purpose. Cost utility is an appropriate tool where subjective assessments are made e.g. the assessment of the possible outcome of a particular library service.

The major advantage of this approach is that it is not strictly based on quantitative data. It is possible to derive results with imperfect information and also tackle the problem of uncertainty. However, the disadvantage of this approach is that since most of the assessment is based on subjective analysis and not on any standard methodology, it is difficult to reproduce accurate results. Moreover, different evaluators will have different results for the same set of data. Further, there are no standard methods of deriving the social utility based on the combined utility of each and every individual.

### Cost Feasibility Analysis

Cost feasibility analysis is an approach of estimating the cost of alternatives in order to ascertain whether they could be considered or not. If the cost of any alternative exceeds the budget or other resources then that alternative is not considered for further analysis. While other approaches like cost benefit, cost effectiveness and cost utility considers both the cost and result of the alternatives, the cost feasibility approach considers only the cost factor for the analysis purpose. Thus cost feasibility study is a limited form of cost analysis which can only ascertain whether the cost of the alternative is within the limit of the available resources or not, and does not determine which alternatives are to be selected.

There are basically two methods of cost analysis:

i) Work measurement, and

ii) Estimation or ingredient method.

Work measurement attempts to measure the exact quantities of labour time used to carry out particular tasks under study. It is primarily based on the work and time study and uses various methods of data collection e.g. work diaries, activity or work sampling etc. Estimation or ingredient method, on the other hand, is the sub-class of work measurement study and is used wherever work measurement is not possible. In this method the quantities of resource inputs required to produce outcomes are first identified either through observation or through discussion with the staff. Monetary costs of these ingredients are then estimated on the basis of the gross annual expenditure incurred for the total system under various headings. Estimation method gives more accurate results for cost analysis and it is commonly used in library and information centres. However, in the long run, the estimation method needs to be complemented with not only the work measurement method but also with other costing methods like budgeting, accounting, performance evaluation etc., in order to get satisfactory results.

The costing of each and every unit is done to proceed with the cost analysis of the system as a whole. The ingredients required for any system can be broadly classified into four types: Personnel, Facilities, Equipments, Materials, and Other inputs. These five basic heads are further divided into smaller units to facilitate the costing process. However, the standard methods of cost analysis cannot be totally applied to the costing of library and information services because of their non profit making and service oriented characteristics. The next section provides a clue as to how this problem is to be tackled.

**Analysing Cost in Library and Information Centres**

Library and information centres exist both for profit making and non-profit making organisations. The profit making organisations usually charge for the services provided by them. With the ever increasing demand for information, the non-profit making organisations are also being forced to price their products, so as to make it possible for them to recover the costs incurred to some extent. Costing of library service or activity is one of the essential elements for determination of the prices for library and information services. Apart from the pricing of products and services; cost analysis of various library and information services has the following advantages:

i) It helps in the estimation of expenditure for each service or operation.

ii) Cost data can be utilised for the measurement of efficiency of an operation and the benefits derived from it.

iii) It ensures optimal utilisation of the resources of the library.

iv) It helps in evaluating the efficiency of the staff.

v) Library managers can utilise them for decision making to determine the future actions.

vi) It helps in controlling the library operations by keeping track of the inputs required and the output derived thereof.

Cost analysis for library and information systems can be categorized into two types: macro costing and micro costing. In macro costing the present cost of the system is determined in order to estimate the future trend. In micro costing the system is divided into units and the cost of each unit is determined. The unit costing method facilitates analysis of the cost of a specific unit of service.

## BUDGET FORMULATION

The following are some of the methods the can be employed for for calculating the annual financial requirements, for efficient library services.

Per Capita Method: Especially helpful in an organization where data on the annual total expenditure is not available. For providing library services minimum amount of data per user i.e. top management or middle management or worker, is fixed in this system.

Cost of Additions Method: Total annual expenditure depends on the cost of documents added per year. Helpful for those organisations, which are devoid of data on the total annual expenditure.

Method of Details: In this method for assessing annual financial requirement past expenditure incurred on providing library services is given due weightage.

Method of Proportions: Financial estimation is arbitrary in this method and depends upon the sales turnover of the industries funding specialist libraries. Recommended library budget is 2% of the total turnover and 61% for research work in research institutions .According to Seventeenth All India Library Conference 6 to 10 percent of the total expenditure should accrue to specialist library whereas in USA research budget is stipulated as 2 to 10%.

## Budgeting Control System

### Introduction

Preparing a budget as well as setting up of a budgetary control system for an information centre depends on cost analysis and costing techniques.

### Budgetary Control System

Budgeting is a planning process in which expenditure and revenue of the organisation over a specific time period are accounted for. Budget' is a plan document and a financial statement which provides details of the proposed revenues and their utilisation for expenditure for a specific period, usually an year. It is a means of check and control on what money should have been received and how they are to be spent. Budgeting need not be just confined to money. It can be expressed both in financial and non-financial terms. But it is a practice (and it is the strength of the budget) that it is expressed with a common denominator called Rupee. Hence, the budgeting is the process of quantifying all the plans of an operation to determine whether they will achieve the desired results, and to adjust accordingly, where ever they fall short of achieving the desired results. Budget is a quantitative expression of a plan of action, a tool in the hands of an information centre manager, a road map to guide management actions towards the destination, and a tracking device to measure progress, highlight variations from the plan and show the need for corrective actions to put the operation back on track. In other words, budget aids orderly and progressive planning, coordination and implementation, serves as an instrument of financial control, and a device for evaluating results. Nobody has the luxury of working without financial restrictions. Nobody gets money without justifying its requirements. Above all, one should be prepared to face both sudden windfalls as well as severe cuts in budgets. Budgetary control system is an example of a system (particularly, the monetary and evaluation techniques of system analysis) as well as a widely recognized control function of the management.

A control system is a system whose purpose is to maintain a desired state or condition. It consists of four elements: i) a measuring device called *detector, ii)* a device for assessing the significance of what is happening by comparing with a standard or expectation i.e., *selector, iii)* a device for altering behaviour (if needed) called *effector,* iv) a means of communication among devices. Unlike biological and physical control systems which are quite simple, control systems in organisations are more complicated. Strategic planning, operational control and management control are the three broad categories of planning and control activities in organisations. "Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisations".

In more simple terms, control, as one of the important functions of management, aims at highlighting the variations between the standards set and performance and then to take necessary steps to prevent the occurrence of such variations in future. Control is the process through which managers assure that actual activities conform to planned activities and it involves - i) identifying and establishing standards for key result areas, ii) measuring and comparing actual results against standards and iii) taking corrective actions.

Budgetary control is one of the oldest and traditional control techniques used by managers. Budgetary control is the process of comparing, what was planned with what has been accomplished, during the budget period. It is not a past-oriented or post-action control but a future-oriented control system. It is not a post-mortem type assessment but a continuous examination of the progress made and comparing it with the cost standards and time lapsed so that the manager is able to make adjustments in the operation on a day-to-day, week-to-week, or month-to-month basis for rest of the period of the budget.

Some important sources of finance for an information centre include: i) regular and ad hoc grants from parent organisation and/or governments, ii) ad hoc grants or subsidies from endowments and other agencies interested in this promotion of information dissemination, and iii) revenues earned in the form of fines, fees and service charges. Important heads of expenditure of information centre are: i) collection building and updating (books, journals, reports, etc.), ii) binding and other maintenance costs, iii) furniture and equipment, iv) building, v) salaries and wages, vi) stationery, postage, etc. Depending on the size of the information centre and nature of its parent organisation, the complexity of budget and budgetary control system may vary from a simple fairly fixed (constant) voted grant of budget for books, journals from parent organisation and other reading materials to a most complex situation where grants are received from parent institution and other agencies in addition to certain revenues earned. These sources of finance may have several restrictions in their deployment. Allocation has to be done to all heads as explained above and by type of material (i.e., books, journals, reports, etc.), subjects, or departments and so on. An "effective budgeting can display endless variety". The parent institution normally decides the budgeting method used by an information centre.

**Need for Budgetary Control System**

Control system is required to measure progress made towards attainment of goals stated in plans, to uncover deviations, if any, to indicate corrective actions and to affect corrections to the organisation before the deviations become serious. As budget is only a futuristic plan, how far the actual operations of the information centre have conformed to the budgeted programme will be known only after completion of the budgeted period (i.e., financial year). Knowing post-facto how much deviation or underspending or ineffective utilization of resources has taken place is, like discussing the ways of avoiding an accident after the accident has occurred. Hence, continuously monitoring the operations to examine how the operations are carried out, whether there are any deviations, the causes for deviations and ways to rectify deviations within a week or a month will be of immense help. Though a budget is prepared once in a year, the budgetary control process is a day-to-day, week-to-week, fortnight-to-fortnight, month-to-month and quarterly-to-quarterly activity for a check on all revenues and expenditures budgeted and stated before hand. Continuous review of the situation is done taking into account the actual as well as committed expenditure till date so that the goals are reached by the end of the year rather than leaving it to chance.

**Budgeting and Budgetary Control in Service-Oriented Organisations**

Information centres are paternalistic, service-oriented and not-for-profit organisations. Budgeting and budgetary control in such organisations are more important than in profit-oriented organisations. The operating manager of profit-oriented organisation can safely be allowed to modify plans provided that the revision plan promises to increase profits. In other words, budgeting becomes the most important part of management control where the annual revenue is almost fixed. As such, operating managers of such institutions are expected to strictly adhere to plans as expressed in the budget.

**Characteristics of Service-Oriented and Not-for-Profit Organisations**

i) Compared to profit-oriented organisations, service-oriented and not-for-profit organisations will not have *inventory* and if there are any resources available for sale, they are essentially fixed assets. In other words, services cannot be stored and if they are not sold, the revenue from those unsold services are lost for ever.

ii) Such organisations are normally *labour intensive* organisations.

iii) There will be dominance of professionals in service-oriented and not-for-profit organisations.

iv) They exist primarily to render a service and hence tend to be service organisations. There will be difficulty in measuring the quantity and quality of services. The success of these organisations is measured primarily by how much service and how well they render it. In other words, their success should be measured by how much they contribute to the public welfare.

v) The quality of service cannot be inspected and measured in advance i.e., before rendering the service.

vi) In view of (iv) and (v) above, there appears to be lack of a profit measure. Generally there is no single criterion to measure success of such organisations. Multiple objectives, lack of relation between cost and benefits, and difficulties in measuring performance and comparing performance of different units of the same organisation, are some peculiarities of such organisations.

vii) Market forces play a less significant role in service-oriented and not-for-profit organisations.

viii) Due to lack of shareholders, there appears to be differences in ownership and power. Consequently there is a tendency for service-oriented and not-forprofit organisations to be political organisations.

ix) Historically, the cost accounting and other control techniques were developed for manufacturing (i.e., profit-oriented) companies, and hence less applicable to service oriented and not-for-profit organisations. Further, inadequate management control has become a tradition in such institutions.

x) Lastly, most of the service organisations are relatively smaller and operate on a single location.

## Problems of Output Measurement

Apart from other disadvantages of budgetary control system, the absence of profit measure is quite typical to service-oriented and not-for-profit organisations. "The absence of a single, satisfactory and overall measure of performance that is comparable to the profit measure is the most serious management control problem in a not-for-profit organisation".

Since service-oriented and not-for-profit organisations have multiple goals and these goals usually cannot be expressed in quantitative terms, often there is no clear cut objective function that can in turn be used in analysing proposed alternative courses of action. Secondly, there is no plausible way of estimating the relationship between inputs and outputs. There appears to be no direct relationship between costs and benefits. There is a clear difficulty in measuring the performance of service-oriented and not-for-profit organisations. Further, due to dissimilar functions, the organisational units cannot be compared in service-oriented and not-for-profit organisations.

Profit-oriented organisations measure their output by the amount of revenue earned based on prices charged for goods and services sold. For individual profit centres, revenue is measured by transfer prices. Service-oriented and not-for-profit organisations either should; device similar monetary measures of output or rely on non-monetary measures.

Information centres have not given adequate attention to their pricing policies. It is not relevant here to discuss or debate on the merits and demerits of charging for information services. If charges are introduced on information services and suitable pricing policies are developed, it becomes easy to measure the efficiency and effectiveness of information centre and its responsibility as a cost centre. The general rule should be that prices are equal to full cost (Full cost pricing). If price exceeds its cost, the information centre becomes profit-oriented organisations. If the price is below full cost, it results in misallocation of resources in the economy. Secondly, "the smaller and more specified the unit of service that is priced, the better the basis for decisions about the allocation of resources and more accurate the measure of output for management control purposes", provided the cost of paper work does not overweigh the benefits and the pricing policy is consistent with the overall policy of the organisation. The management control process is further facilitated if price is set prior to the performance of the service (prospective pricing). The transfer pricing concept should be adopted to measure the output of any responsibility/cost centre within the information centre. .

The non-monetary output measures could be classified in many ways. They can be subjective or objective, descrete or scaler, quantitative or qualitative. Generally, there are three important categories of non-monetary output measures. They are identified based on what they intend to measure.

i) *Result measures: A* result measure tries to express output in terms that are supposedly related to an organisation's objectives. It is an ends-oriented, surrogate or proxy measure and tells directly the impact of the organisation on the outside world.

ii) *Process measures: A* process measure which is means-oriented relates to an activity carried on by the organisation, and measures the output of a responsibility centre or an individual. There is an implicit assumption that, what the responsibility centre does is congruent to the objectives of the organisation. Process measures, measure efficiency but not effectiveness, and are most useful to measure current and short term performance.

iii) *Social indicators: A* social indicator is only a rough indicator of accomplishment of an organisation and is affected by any uncontrolled extraneous factors. Social indicators take into account the result of the work of the organisation and they are useful for long-range analysis of strategic problems. They are nebulous, difficult to obtain on a current basis, little affected by current programme effort and susceptible to external influences and hence of little value in day-to-day management.

Lastly, inputs themselves are used as proxy output measures with the assumption that inputs are often a better measure of output than no measure at all. The classical example is, the money spent on research projects is used as proxy output measure. One should be careful and as far as possible, avoid reliance on such measures.

**Budgetary Control Process in Information Centres**

The three basic steps in the control process are establishing standards, comparing results with standards and taking corrective action. Preparation of budgets is nothing but establishing cost standard. This process begins with top management setting goals and objectives and the lower level managers developing budgets for their units and the same successively reviewed and integrated at each higher level.

The starting point for budgetary control process in information centres is the income derived from known funding sources. In other words, the process of budgeting and budgetary control starts with estimating the amount of revenue that the information centre is likely to receive for operating purpose for the year. The next step is to budget expenses that equal this amount of revenue. Unlike profit-oriented organisations where budget for marketing expenses can influence the amount of revenue, the service-oriented and not-for-profit organisations should have a different kind of simple matching of revenue and expenses. The expenses planned should be approximately equal to the revenue. If budgeted expenses are lower than the expected revenue then the quantity of service cannot be provided to those who have provided revenue and have a right to expect service. If budgeted expenses are in excess of revenue then it may lead to undesirable actions of drawing down endowment or other capital funds that are intended to provide services to future generations. The prudent course of action usually is to reduce expenses rather than to anticipate that revenue can be increased. Budgetary control process is a day-by-day, week-by-week, fortnight-by-fortnight, month-by-month, quarter-by-quarter, year-round process. Both revenue and expenditure have to be monitored as proposed in the budget document. Often, in practice, the budget document does not specify the exact dates on which the revenue and expenditure are incurred during the year. Based on the programme for the year and costing analysis, target for each period (week or fortnight or month) has to be fixed in advance. As the budget for library and information centre is essentially the expenditure-oriented budget, the expenditure has to be divided by subjects, by departments, by groups of users, by languages, by formats, by type of reading materials in case of collection development, and other usual heads like maintenance and service charges, equipment, furniture, building, wages and salaries etc.

Most of the practitioners are much concerned and are more serious about the phases of actual use of funds, accounting, auditing and financial control. This phase in itself involves allocation of funds as envisaged in the budget, encumbering funds under each head, fund accounting and financial audit. Allocation of funds might have been based on past practices and performances, differential publication rate and inflation rate, level of demand, actual use and the total programme of the information centre. Actual allocation could be by departments units, by subjects, by type of material, by users, by language or by format. Such an allocation of funds provides better control and more effective way to monitor funds and has the best chances to achieve a fair balance in development of programmes and services. However, a rigid allocation, particularly for collection development, may lead to difficulty in transferring funds from one account to another and consequently underspending in some cases may occur even when the other heads starve for funds. In addition to such ineffectiveness, approval, blanket and standing order plans as well as development of reference, general and special collections may not fit into any heads. Further, matching the needs and `monies' available becomes complicated, time consuming and it maybe difficult to develop models even after massive efforts. However, it may be noted that such formal allocation of finds may not be necessary in a small library.

In the weekly or monthly budget report, for each item of expenditure the total expenditure amount budgeted, the actual expenditure and the commitments (encumbering of funds) made both during the period as well as till the end of the week or month have to be shown. In addition, if the budget contains identification of foreign exchange (FE) component of the expenditure, the same should also be provided. Here, the actual expenditure refers to the expenditure amounts for goods and services received and for which invoices or bills have been received and paid for. Normally the bill register of the information centre provides the actual expenditure. The total actual expenditure for a given week or month has to be broken down and distributed to various subjects, departments and other heads either manually or with the help of a computer. Committed expenditure refers to the outstanding expenditures for goods and services which have been ordered but not yet paid for. The goods or services may or may not have been received by the library. Usually, committed expenditures are worked out by maintaining a separate record regarding the value of orders released and these records have to be updated for adding information on new orders and deleting part or complete supply of items of outstanding orders. At times, the total expenditure till date is arrived at by adding the actual expenditure to that portion of committed expenditure which is expected to fructify during the financial year.

The most difficult task in budgetary control process in information centres is encumbering funds. Encumbering funds is a complex process that allows one to set aside `monies' to pay for ordered items. The process of encumbering funds is difficult and complicated for various reasons. Firstly, it is common that there will be underspending and overspending in some heads. Secondly, there are some uncertainties about funds left unencumbered. Thirdly, there are uncertainties about supplies (delayed supplies and non-supplies). Information centres make several orders for documents under many heads in a given financial year and supplies are received continuously at non-fixed intervals. Generally there is no automatic cancellation of unbilled orders, and hence no discounts and handling charges of documents. Moreover, exchange rates for foreign currencies keep changing frequently causing variation in the value of funds encumbered. Lastly, moving `monies' back and forth by encumbering and disencumbering in a manual system can lead to errors.

Statements relating to commitments and actual expenditure should be regularly checked and continuously reviewed to control the budget. Any anticipated increase in expenditure over and above the amount identified in the budget must be offset by a decrease in expenditure in that area during the rest of the period. Unexpected and inevitable increases should be absorbed by reallocation of funds from other heads with the approval of a competent authority. A model called corporate financial model should be designed incorporating budget and financial data to report on what has happened and to project what might happen assuming certain changes. Such reporting and budgetary control should cover the capital expenditures also.

In the actual practice of budgetary control system, operating statements have to be prepared for each of the budget centres (or heads or items) involved. These statements should form part of the management information system (MIS) used to control the performance of information centre against the budget plan. A good budgetary control system should follow the theory of `management by exception' and focus its attention on matters that are adverse or show an unusual favorable variance in addition to providing full details of budget statements. Though there are differences in the degree of details to be provided to management through budgetary control system, it may be better to breakdown the operating statements into `controllable' and `uncontrollable' variations. Each individual centre may decide on the frequency or interval at which data is best controlled. In practice, it may suffice to have monthly reporting in the beginning of a financial year and changing it to fortnightly during later part of the year. However, the unit heads may have data on daily or weekly basis throughout the year to facilitate operational control and the same need not be sent to the head of the information centre.

The purpose of fund accounting or financial accounting for not-for-profit organisation is to assure proper use of `monies' provided and to make it possible to track expenditures. The major part of the fund in an information centre is operating fund. For fund accounting purposes it can be divided into two categories: i) restricted funds, and ii) unrestricted funds. Unrestricted funds allow flexibility in use of funds whereas restricted funds like grants for specific purposes cannot be used for purposes other than that specified. The cardinal principle of fund accounting is that every financial transaction is charged to some account and a record exists of what the transaction involved. Fund accounting system should allow for verification of the transactions and providing accurate report. Proper fund accounting by allowing one to know how much money is spent, how much is left and how much is encumbered or committed, aids the budgetary control process, and enables continuous checking and reviewing of the situation and examining the need for reallocation or reappropriation of funds.

Lastly, the financial audit part of the process enables meticulous but sample scrutiny of financial transactions to have proper control over irregular, inappropriate and wasteful expenditures. Information centres normally have post-audit by external/ central/statutory auditors, who usually look into loss of reading materials, irregularities in procurement processes and outstanding advance payments and supplies.

Budgetary control system often raises fear or apprehension among professionals who are responsible for the budgets. One may even develop skepticism or mistrust for having taken up measuring his or her performance based on standards. Head of the information centres may have to clear these doubts and fears by clarifying and emphasising that establishing budget, monitoring and controlling it are essential activities in the modern management of library on information centre.

**Advantages and Limitations of Budgetary Control System**

Some of the basic limitations and problems of control system itself are as follows. A control system is normally designed to handle a certain magnitude of change or deviations and hence if there is dramatic change the control system may not be appropriate. Delays or time lags in providing feedback may slow down the adaptive process and increase the time required for control system to respond. If a control system fails to identify only deviations and exceptions and report it to appropriate persons, there could be a flood-of information on everybody's table causing sickening out of `information overload'. If the standards themselves are erroneous, the whole purpose of control system is defeated. Workers concerned may perceive the control system as a tool to exert pressure on them and as an unwanted check on them.

**Advantages of Budgetary Control System**

It is necessary for a manager of an information centre to understand the strengths and weaknesses of budgetary system in general, and budgetary control system in particular, to enable him to use it as a proper tool of management.

i) The greatest strength of budgeting lies in its use of Rupee language i.e., Use of a single common denominator for a great many diverse actions and things. It defines the objectives of an organisation as a whole and in financial terms.

ii) Budget deals directly with efficiency which is the main concern of every organisation. It provides yardsticks to measure efficiency of various units of the organisation.

iii) Budgeting the formal organisation should be clear, the department or unit should have clear financial responsibilities and accounts and planning should be highly specific and must be done well in advance. Further, budgeting may become the basis for long range planning. It promotes overall perspective, cooperation and team spirit the employees as it bri the employees as it brings together the activities of various divisions. Budgeting helps to have improved communication.

iv) Budgetary control system reveals the extent by which actual results have varied from defined objectives.

v) For having detected the deviations from the predetermined standards, it provides a guide for corrective action and hence minimises wastage and losses.

vi) It facilitates centralized control with delegated responsibility,

vii) Budget under various functional units indicates the limits for expenses and results to be achieved.

viii) Since managers of different levels are involved in setting budgets, the organisation is bestowed with the collective wisdom.

ix) Budgetary system helps managers to learn from past experience.

**Limitations of Budgetary Control System**

We have already seen some of the limitations of a control system. Now let us look at the limitations of a budgetary control system.

i) Budgetary control system in service-oriented and not-for-profit organisations may lead to unhealthy emphasis on easily observable factors ignoring more important areas like services.

ii) Budget and budgetary control systems tend to create internal conflicts and pressures among different departments or units.

iii) Another limitation of budgetary control system is that by involving itself in a number game, it may treat symptoms rather than the basic problems. Reports of budgetary control do not and should not be expected to reveal the real cause of any difficulty.

iv) Budgetary control system may open up the way for dictatorial behaviour on the part of the top management. This can be seen in setting standards, calling for an arbitrary cut in expenses, etc.

v) In case of line item type budget, the organisation might go through the process of budgetary control without giving any real thought as to how the operations might be improved.

vi) Budgetary control system tries tying everything to Rupees and ignores the quality of services and hence poses serious problems to service-oriented and not-for profit institutions like libraries and information centres.

vii) A budgetary control system may sometimes become very cumbersome, time consuming and unduly expensive, and require additional efforts, costs and manpower to perform.

viii) Inefficient employees may feel suspicious of budgetary control system that it is used to evaluate the results or consider it as a way of implementing cost reduction programmes and hence fail to cooperate wholeheartedly.

ix) The process may become routine with complacency of paper work and little notice or action taken. As such budgets may not help in solving day-to-day problems of supervisors but help to analyze the past performance and projecting the possible future.

x) Sometimes the budgetary control system may turn out to be ineffective if budget estimates turnout to be grossly inaccurate.

xi) Budgets are mostly inflexible and rigid and do not respond to internal or external environmental changes. Budget standards may not be revised as frequently as required.

xii) Budgets have a way of growing from precedent. An amount once spent becomes a floor for future budgets. In such situation a good manager is discouraged from taking initiative and undertaking new activities for which provision has not been made in the budget and a bad manager can hide his inefficiency behind the budget.

xiii) Not all expenditures can be controlled by way of a budget. The actual expenditures may not differ much from budgeted expenditure but the department would have performed little constructive work.

**Flexible Budgetary Control**

The budgets are, after all, estimates based on the result of intelligent judgments and hence are alterable. The budget is increasingly being used as a control device in both profit oriented as well as service-oriented and not-for-profit organisations. In other words, budgets should not be rigid, but responsive to political and economic changes as well as changes in needs of the customers. They should be sufficiently flexible to meet rapid shifts in the needs. As actual conditions may not match centre, like any other enterprise, is a dynamic entity required to adjust to changing environmental factors and economic forces. As such the budget of an information centre should be self-adjusting to reflect the new conditions of operations. Such a self-adjusting budget is known as the flexible budget. It is a marginal approach to allocating resources and incorporates all the disadvantages and difficulties associated with marginal analysis. It is not. a passive approach to budgeting and it justifies change provided the relationship of expenses is maintained rather than force a change in the composition of capital and labour to achieve a more efficient product curve (or level of production). Nevertheless, the flexible budget is one of the best control devices available to management. It is an effective tool, provided it does not attempt to measure radical changes from normal with the conditions assumed while preparing a budget, there could be differences between actual costs and budgeted costs. To mitigate the situation, the flexible budgetary control is introduced in business. Flexible budgetary control may be less relevant to information centres which do not earn substantial revenue from their services. One of the basic principles of budgetary control is to fix responsibility to the manager for costs over which he control. If the variances in costs are due to factors on which he has no control, then to that extent he should be relieved from the responsibility. Such uncontrolled variances can occur due to variations in prices, volume, etc, flexible budgeting is thus extremely useful for getting behind the causes for variances.

The process of budgetary control system in an information centre starts with estimating the revenues expected for the year, followed by planning the expenses that equal revenues and then trying to prepare time schedule for both revenues (grants) and expenses with all the restrictions relating to allocation and use of funds with provision for reallocation. An operating statement with time targets is prepared by giving detailed breakup of revenues and expenses by departments, subjects, head of account etc., as required for monitoring the expenses. This statement is used as a monitoring tool to check the noticeable variations in the expenses. If variations are serious enough then they are suitably rectified either by adjusting in the subsequent periods or by reappropriation of funds from other heads.

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