CHAPTER- 4

LIBRARY HOUSEKEEPING OPERATIONS AND SERVICES

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4.0 Introduction

Modern libraries are complex systems that consist of many procedures and functions. Integrated Library Systems (ILS) have been part of libraries quite few years back. The core functionality of the traditional ILS has not changed much. Traditionally, these functions (subsystems) included acquisition of materials, cataloging and classification, circulation and interlibrary loan, serials management, and reference services.

An attempt is made in this chapter to delineate the functions, features, services and management aspects carried out in an integrated library software. The automated operations considered in this study, viz., acquisition, catalog, circulation, serials control, OPAC, Services and Administration. Each process involves a number of automated functions which are briefly described. These explanations convey the significance and meaning of the functions involved in each of these operations. These explanations hold good for the remaining part of the thesis. Most libraries have some of these items on their systems and may be other additional features, along with a variety of specifically local requirements.

The following sections 4.1 to 4.6 will give an account of various housekeeping operations carried out by using integrated library software which are considered for this study.

4.1 Acquisition Module

The Acquisition module enables the library staff to handle the following major functions related to acquisition of library material.

- Suggestions management.
- Ordering, cancellation and reminders.
- Receiving and Accessioning.
- Invoice Processing and Payment, including fund control.
- Master file management such as currency, budget, vendors, publishers etc.

Through this module library staff can search the entire database of library holdings for the purpose of duplicate checking etc. By using various combinations, a number of reports could be generated.

Library's acquisitions department is responsible for purchasing books and other documents, including serials for the library's collections. All steps involved in manual acquisition process are automated. Besides this, other services are also offered and reports are generated out of the date entered once. It begins with the arrival of a request to purchase (indent) from a member (indenter) or request for purchase from a vendor (documents on approval), and finally purchase and merger of the records with catalog module and later records can be browsed from the OPAC.

Normally, there are a number of master files, which are used in automated acquisition system. These files contain the data about vendor, department, members, budget, currency, remarks, subject and letters.

The process of acquisitions is mainly a repetitive work because it is not unusual to find the same information being repeated at various stages right from selection to the procurement processes. Acquisitions involves a great deal of record keeping as well as facing usual difficulties of tracking orders and determining when claims should be produced. Manual acquisitions systems are labour- and paper-intensive, and usually produce only a limited amount of management information. Automated acquisitions reduce the amount of paper
handling and generate a wide variety of reports, which help in taking appropriate decisions at various stages of acquisition operation.

'Acquisitions' encompasses all aspects of the procurement of all types of library materials, whether by purchase, gift or exchange, from the request stage through transfer of materials to cataloguing. Fiscal processes are also included within the scope of acquisitions (Boss, 1992).

The major objectives of automated acquisitions systems may be summarized as follows:

- To reduce labour- and paper-intensive work involved in manual acquisitions
- To maintain up-to-date information/record of all activities involved in acquisitions
- To have effective and efficient control over ordering, claiming and cancellation functions
- To provide accurate and timely financial information
- To provide necessary management information reports, whenever they are required.

While difference in purchasing practices and procurement regularities may lead to local variations in acquisitions systems, certain basic characteristics and work steps are always similar in all the systems. Thus, this study concentrates more on these commonality found in automated systems. The following sections describe briefly these various automated functions, which are considered in this study:
4.1.1 Detailed Annual Budget

It contains budget details of the department and institute for whom the library is procuring materials. Year, Department/Organisation, Budget head, allocation are inputted and saved. It may be repetitive for as many departments and as many as budget heads. The allotted money for purchasing of books and other materials to the library has a fund structure of at least more than one level of hierarchy that is updated dynamically.

Automated systems are particularly valuable in fund accounting and audit trial. A good system maintains correct and current financial records and a good audit trial. Obviously, this function must be sufficiently flexible to operate with the library's policies and changing fiscal management requirements.

One of the main features in this function is that the system should allow to maintain funds under different budget heads as required by the library from time to time. The maintenance will encompass creation, modification and closing of funds by specifically authorized staff.

The appropriate fund should be encumbered immediately, as soon as the material is ordered. Once the items are received and the invoices are approved for payment, the funds must be disencumbered and correct expenditure is recorded. This needs to be automatically done, once the price and other amounts (such as discount, postage, foreign exchange etc) are recorded into the system and the payment signal is indicated to the system.

4.1.2 Selection Process

The library acquisitions process begins with the selection of materials by the acquisitions staff or with the arrival of a request from the patrons. The
library's catalogue and on-order files are first consulted to determine whether the item is on order or already in its collection. Once all the details are inputted to the system, the list will be made available for a book selection committee for approval.

4.1.3 Approval Process

After the list has been printed, received and verified, it is placed before the competent authority for approval. The committee scans the list/ request in right perspective against the availability of budget and accords the approval/recommendation for purchase. Some requests they may keep in pending due to paucity of funds. The library committee will approve the items which are selected for the library. The library committee will select the items.

4.1.4 Order Process

After the assignment of vendor, supply orders are generated. A single supply order is prepared for all the documents being order to vendor. The supply order is generated for a list of books approved and for a given vendor. The system supply order number retrieves the records of documents ordered in it.

The system will also provide a variety of order statuses, including, but not limited to: in pre-order process, on order, claimed, received but not paid, partially received, currently received, completed, cancelled allows one purchase order number for each title.

A thorough checking is normally done to avoid unwanted duplication. If the acquisitions system contains bibliographic data file of library holdings, it is searched to determine whether a given material is already owned. Otherwise, the on-line catalogue is consulted.
Further, on-order/in-process file will have to be checked to see whether the item is already on order. If a record is already there either in on-line catalogue or in on-order file, assuming that an additional copy will be purchased, the system should support for creating a new order record just by copying automatically the relevant field. By this, the operator's efforts and time to create an order record are minimized. Then, the system should extract necessary details from the operator to reflect the specific requirements of the new order.

However, for a completely new order, all the details are to be filled-in afresh. While specific details will necessarily vary from one system to another, each order record typically consists of some combination of the following fields: an order control number; an order date; a purchase order number; a requester's name or code; a vendor's name or code; an indication of the acquisition type, price, a fund name or code to which the item is to be charged; and a status code or other information required for the tracking of an item at various stages of acquisitions process.

A good acquisitions system supports various order types such as standing order, on approval, prepaid order, gifts and exchanges and so on. Depending upon the type of order, the system should accept the relevant details from the operator. An efficient system handles ordering of multiple copies and multiple volume documents by accepting minimum possible information and allowing for copying the repetitive data from record to record. Once an order record has been generated, the system must be capable of transforming the input data into actual orders to be sent to the vendor or other sources (Dykeman, 1989).

4.1.5 Standing Order

An order is placed by a library with a publisher or vendor to supply each volume or part of a specific title or type of publication as published, until further
notice. Unlike subscriptions, which must be paid in advance, standing orders are billed as each volume is shipped. This option may be integrated to place standing order which is procured by the library as and when these are published.

4.1.6 Receiving Process

Once the documents have been received along with the invoice, these are taken on charge and bills are forwarded for payment. A supply order may be for multiple document, and there may be multiple receipts against a supply order. In case any advance payment has been made with standing order, the same may also be entered and adjusted against final payment.

Basically, the received item processing in an automated system involves updation of order record to indicate the receipt of the item. When an item is received, the systems operator retrieves the appropriate order record to verify the correctness and completeness of the order. Depending on the situation, the operator has to take further actions.

The system should enable the operator to record a variety of received statuses to indicate the precise disposition of the items. For example, if an item is received damaged or defective, this fact needs to be recorded in the order record.

The system should efficiently handle the partial receipt of an order, receipt of the item without invoice, receipt of the items through different order types, items received but not ordered, etc. The system should enable verification of the correctness of bibliographic details of the items supplied, and in case any deficiencies are noticed, it should take appropriate measures. Further, in case,
the bibliographic or other details are incomplete or incorrect, the system should allow for updating them at this stage.

4.1.7 Invoice Process

When a vendor's invoice is received, it must be reviewed in order to ascertain that whether the item was actually received and that the amount billed corresponds to the amount encumbered. After the invoice is verified, it is normally sent along with an accompanying voucher to the accounts office in order to prepare a cheque for payment of the material.

If an item is received before its invoice, the receipt of the item is recorded into the system. Further, the non-receipt of the invoice is also recorded in the system so that the system can generate claims for the invoice. Similarly, if the invoice is received before its item, the receipt of the invoice along with other details are entered into the system with an indication of the non-receipt of the item. In this case the system generates claims for the item. Further, the fund file has to be suitably updated automatically.

If the item and invoices are received together, after verifying their correctness the receipt of the both are recorded. Suitable updation in order file, invoice file and fund file may be made at this stage.

4.1.8 Payment Process

The purpose of this function is to assist the library staff in performing the work related to payment of invoices for library materials acquired via different types of purchase schemes. The assistance includes maintenance of the record of all invoices approved for payment, maintenance of records of payment,
maintenance of cheque register, voucher register etc. The most important thing is the maintenance of complete audit trial for all transactions done in this function.

4.1.9 Reminders to Vendor Process

Claims is an area where an automated system has been found very helpful. If an order is not received within the specified period, a claims notice/reminder has to be generated and sent to the vendor unless notification of delay has been received and noted in the system. A system should provide for both automatic claiming of ordered materials and operator initiated claims. In the former case the system triggers claims notice production automatically, and in the latter case the claims are reviewed and released by the staff for printing. A good system arranges the items to be claimed in vendor order and print all claims to a vendor on a single claim notice, unless the library requires that they be printed on separate forms.

The claiming function should also incorporate the claiming of invoices and bindery orders. The system should have the capability to produce follow-up (subsequent) claims, if no response is recorded by the system within a specified period. Although the acquisitions systems may support the issuance of any number of claims, generally, a maximum limit is fixed by the library as the probability of receiving the item after that limit is very low.

4.1.10 Accessioning Process

Accessioning process involves assigning Accession Numbers to the items received. Some systems automatically generate the range of Accession Numbers and in some systems Accession Number has to be assigned by the operator. To record in an accession list the addition of a bibliographic item to a
library collection, whether acquired by purchase or exchange or as a gift. The process of making additions to a collection is known as accessions. Accession register is a record book with records all accessions and their accession numbers.

4.1.11 Routing and Bindery Preparation

Routing function intends to send materials to faculty, staff, researcher, or other specified categories of clientele for review prior to shelving. The existence of this function eliminates one more source of exception processing and its attendant manual efforts. Routing information needs to be suitably maintained by the system. But it has to be always linked with the order record. On demand, routing of selected items should also be supported.

Bindery predations means preparing a list of documents needed to be sent for binding. The system should support by marking those documents and showing them in OPAC.

All this means that the data contained in the acquisitions system must be specific enough to enable the system to determine what is to be done for each item received.

4.1.12 Print of Accession Register

Accession register is a record book with records for all accessions and their accession numbers. A list of the bibliographic items added to a library collection in the order of their addition. Normally, such a list includes the accession number, brief bibliographic identification, source, and price paid for each item. Once the document is received, all other bibliographic details will be inputted. Later the accession register will be printed.
4.1.13 Print of Invoice Register

Invoice register is a record book with records for all invoices and their invoice numbers. A log or report of accounts payable invoices created for a specific vendor, batch, date range or other parameter.

4.1.14 Print of Spine Label

A small typed or printed label affixed to the lower spine of a book or other bibliographic item at the time it is processed, displaying its location symbol and call number, for use in reshelving and to assist the user in retrieving the item from the shelf once the call number has been found in the library catalog. Once the document is received, all other bibliographic details will be inputted. Later the spine labels can be generated based on the call numbers to paste it on the spines of the documents.

4.1.15 Data conversion in Standard Format (ISO 2709)

MARC 21 or CCF defines a standard for the markup of bibliographic data. ISO 2709 defines how the marked up record is formatted so that it can be read by computer programs and can be transferred among computers. ISO 2709 is usually referred to as the MARC or CCF communications format. Bibliographic records can be imported/exported through the software as part of retrospective conversion process. MARC records can directly uploaded to the Acquisition section for processing.

4.1.16 Communication through Email to the Vendors

This feature allows the exchange of information through written or electronic mail to the vendors for any acquisition related matters like order placed or reminders can be sent, etc.
4.2 Serials Control Module

The complex job of keeping track of serials can easily and effectively be handled by using Serial Control module. This module broadly handles the following functions:

- Suggestions.
- Subscription (renewal and new subscription).
- Payment including fund control etc.
- Check in of issues including prediction of issues arrival.
- Reminder generation.
- Binding management.
- Master database management.
- Search status of every item.
- Reports generation etc.

Serials management, an integral part of library operations, has become increasingly complex over the years. The emergence of electronic journals has made Serials Control as further complication. Serials management always has been an area that is labour intensive, demanding high degree attention to accuracy and detail. The benefits of the application of automation in other areas of library operations is now well established; it is a natural progression for librarians and system designers now to seek to apply the power of computer to control one of librarianship's most troublesome processes (Paul, 1989).

As used in this study, the term 'Serials' denote those publications which are issued in successive parts on a recurring basis, usually, but not necessarily, at regularly scheduled intervals and usually having numerical or chronological
The term 'Serials control' refers to those tasks which support the procurement and management of serials collection in a library.

There may be a number of master files, which are used in automated serials system. Some files like members, vendors, budget, department, which are common are used in circulation, acquisition and cataloguing systems. These files contain the data about journal, vendor, publisher, department, binding specifications, budget, currency, subject and letters (Tonkery, 1983).

The major objectives of automated serials control system may be summarised as follows:

- To have effective and efficient control over subscriptions, claiming and cancellations activities
- To record and maintain accurately and timely the serials holdings data
- To have a good control over binding and related activities
- To provide accurate and timely financial information
- To provide necessary management information reports, whenever they are required
- To reduce labour- and time-consuming work involved in manual serials control systems

The following sections describe briefly the various functional requirements of an automated serials control system:

4.2.1 Detailed Annual Budget

It contains budget details of the department and institute for whom the library is procuring materials. Year, Department/Organisation, Budget head,
allocation are inputted and saved. It may be repetitive for as many as departments and as many as budget heads.

Automated systems are particularly valuable in fund accounting and audit trial. A good system maintains correct and current financial records and a good audit trial. Obviously, this function must be sufficiently flexible to operate with the library's policies and changing fiscal management requirements.

One of the main features in this function is that the system should allow to maintain funds under different budget heads as required by the library from time to time. The maintenance will encompass creation, modification, and closing of funds by specifically authorized staff.

Other features related to accounting function include alerting depletion of accounts, calculation of foreign currencies and handling of exceptional situations. Maintenance of a full audit trial, particularly for financial transaction, is essential. The audit trial details should be recorded in such a way that they should identify the person effecting the transaction as well as the date, time, nature of transaction carried out etc.

Automated systems are particularly valuable in fund accounting and audit trial. Obviously, this function must be sufficiently flexible so as to operate with the library policies and changing fiscal management requirements (Saffady, 1983).

Other main feature in this function is that the system should allow to maintain funds under different budget heads as required by the library from time to time. The maintenance of funds encompass creation of funds, closing of funds or modification of funds by suitably authorized persons.
On payment for the new subscription and renewal of subscriptions, the system should adjust the funds appropriately. The system should record the actual price paid, postage, foreign exchange, etc, as appropriate to each serial.

Maintenance of a full audit trail, particularly for financial transaction, is essential. The audit trial details should be recorded in such a way that they should identify the person effecting the transaction, the date, the time, the nature of transaction carried out, etc.

4.2.2 Selection Process

The library Serials acquisitions process begins with the selection of serials by the acquisitions staff or with the arrival of a request from the patrons. The library's catalogue and on-order files are first consulted to determine whether the item is on order or already in its collection. Once all the details are inputted to the system, the list will be made available for a selection committee for approval.

4.2.3 Approval Process

After the list has been printed, received and verified it is placed before the competent authority for approval. The committee scans the list/request in the right perspective against the availability of budget and accords its approval/recommendation for purchase. They may keep some requests in pending owing to paucity of funds. The library committee will approve the items which are selected for the library. The library committee will select the serials.

4.2.4 Subscription Process

The process of acquisition, in serial control system, refers primarily to the tasks involved in making new subscriptions, re-subscription, renewal and
cancellation of subscription. In order to handle the acquisition work efficiently, the system should maintain in-process file and a vendor file. The in-process file may contain the bibliographic and order data as well as invoice data if required. The system should be able to produce automatic subscription renewal alert. Acquisitions through gifts and exchanges should also be supported by the system. The system should provide support of production of orders, claims, cancellation notice and other communications required in this function.

4.2.5 Receiving of Titles Process

Once the documents have been received with invoice, these are taken on charge and bills are forwarded for payment. A supply order may be for multiple document, and there may be multiple receipts against a supply order. In case any advance payment has been made with standing order, the same may also be entered and adjusted against final payment.

Basically the received item processing in an automated system involves updation of order record to indicate the receipt of the item. When an item is received, the systems operator retrieves the appropriate order record to verify the correctness and completeness of the order. Depending on the situation, the operator has to take further action(s).

The system should efficiently handle the partial receipt of an order, receipt of the item without invoice, receipt of the items through different types of order, items received but not ordered, etc. The system should enable verification of the correctness of bibliographic details of the items supplied, and in case deficiencies are noticed, it should take appropriate measures. Further, in case, the bibliographic or other details are incomplete or incorrect, the system should allow for updating them at this stage.
4.2.6 New Order Process

The committee may approve some new serials to be added from the current subscription year. The details of such journals are added in the order and purchase order is generated. The journal database is updated and check-in record is then added to the bibliographic record and check in boxes are added in the Kardex record with the appropriate parameters.

Acquisitions, in serial control system, refers primarily to the tasks involved in making new subscriptions, re-subscription, renewal and cancellation of subscription. In order to handle the acquisitions work efficiently, the system should maintain in-process file and a vendor file. The in-process file may contain the bibliographic and order data as well as invoice data if required. The system should be able to produce automatic subscription renewal alert. Acquisitions through gifts and exchanges should also be supported by the system. The system should provide support of production of orders, claims, cancellation notice and other communications required in this function.

4.2.7 Renewal Process (continuation of Titles)

The libraries adopt different procedures for renewal of subscription for next period. Most of the libraries start the serials subscription process at least 2 to 3 months in advance. If a library's practice is to renew the subscription for the serials one month prior to the subscription date, renewal period is taken to be 30 days. So one month prior to the expiry of current subscription status of all serials.

4.2.8 Membership and Receipts Against Membership

The libraries adopt different procedures for subscription to serials. One way a library/institution can become a member of a publisher/organisation or a
body. So the system should support the basic functions associated with membership and receipts against membership.

4.2.9 Standing Order

An order placed by a library with a publisher or vendor to supply each volume or part of a specific title or type of publication as and when published, until further notice. Unlike regular subscriptions, which must be paid in advance, standing orders are billed as each volume is shipped. An order to supply each succeeding issue of a serial, periodical or annual publication, or subsequent volumes of a work published in a number of volumes is issued intermittently.

This option may be integrated to place standing order which is procured by the library as and when these are published. Standing order serials are received directly at the library with invoices enclosed, in most cases, with each shipment.

4.2.10 Invoice Process

When a vendor’s invoice is received, it must be reviewed to ascertain that the item has actually been received and that the amount billed corresponds to the amount encumbered. After the invoice has been verified, it is normally sent along with an accompanying voucher to the accounts office in order to prepare a Cheque for payment of the material. If the item and invoices are received together, after verifying their correctness, the receipts of the both are recorded. Suitable updation in order file, invoice file and fund file may be made at this stage.

4.2.11 Payment Process

The purpose of this function is to assist the library staff in performing the work related to payment of invoices for serials subscribed via different types of
purchase schemes. The assistance includes maintenance of record of all invoices approved for payment, maintenance of records of payment, maintenance of cheque register, voucher register etc. Though very rarely is it seen in practice, the system may be made to write the cheques also.

4.2.12 Checkin Process for Title

One of the most important feature of a serials control system is its check-in capability. Because it is a highly repetitive operation, it must be fast and "friendly" to be useful to the library. The ongoing process of recording the receipt of each issue of a serial, a routine task accomplished by the serials department of a library. Automated systems allow the patron to view the check-in record for a given title.

If the checked-in issue is not the one expected but a later one, the system should automatically mark the gap. On the other hand, if the checked-in issue is not the expected one but an earlier one, the system should be able to find out whether the issue details correspond to the missing one or whether it is a duplicate issue. In either case, the system should be able to update suitable file/records with a minimum operator intervention.

A good system supports the check-in of multiple copies of an issue on a single check-in transaction even when these copies are accommodated in separate copy records. In the interest of efficiency, the system should also support check-in of special issues, combined issues, supplements, "come with" issues and so on. It is helpful, if the system provides a link to the full bibliographic record to resolve some such problems as variations in title or other bibliographic data elements.
The predictive checkin system generates a box for each issue, supplement or index that the library expects to receive. The system computer data can include volume and issue number, cover date, and expected arrival date. For issues that have already been received by the library, the data consist of the arrival date, the number of copies received, notes, etc. In addition, checkin records (both active and inactive) contain summary holdings statements, binding parameters, and other data, including library-defined, variable-length fields.

4.2.13 Reminder to Publishers/Suppliers

Claims is an area where an automated system has been found very helpful. If an order is not received within the specified period, a claims notice/reminder has to be generated, and sent to the vendor unless otherwise notification of delay has been received and noted in the system. A system should provide for both automatic claiming of ordered materials and operator initiated (forced) claims. In the former case, the system triggers claims notice production automatically, and in the latter case, the claims are reviewed and released by the staff for printing. A good system arranges the items to be claimed in vendor order and prints all claims to a vendor on a single claim notice unless otherwise the library requires that they be printed on separate forms.

The claiming function should also incorporate the claiming of invoices and bindery orders. The system should have the capability to produce follow-up (subsequent) claims, if no response is recorded by the system within a specified period. Although the acquisitions systems may support the issuance of any number of claims, generally, a maximum limit is fixed by the library as the probability of receiving the item after that limit is very low.
4.2.14 Claiming Process

The most frequently faced problem in serials management is the non-receipt of the journal issues in time. The system should automatically identify the issues that should be claimed. Some claims may be automatic and may cause the system to trigger claim notice production without or with a minimum staff intervention. Other claims will be semi-automatic in the sense that they require staff review prior to claim notice production. Certain situations demand forced claim, i.e., claiming an issue through operator initiation. The system should have all the facilities to handle all these three situations.

For items that do not have predictable pattern of frequency or enumeration, claims have to be sent for those items for which there has been no check-in activity within a library-specified period. To be really useful, the system should generate follow-up claims. The criterion for generating such claims may be one suitable to the individual library's practice. Although the system may support issuance of any number of claims, generally a maximum limit is fixed since the probability of receiving the issue after that limit is very low.

4.2.15 Tracking Vendor Licenses and Licensing Agreements

Almost all the e-journals and databases that the library makes available through its web site have restrictions on use and access that are specified in the licensing agreements signed by the library and the respective publishers and vendors. Licenses vary from resource to resource but, in general, access to some resources may be limited to on-campus use only etc. The system should have a facility to manage these use patterns.
The libraries adopt different procedures for renewal licenses of subscription for next period. If a library’s practice is to renew the subscription for the serials one month prior to the subscription date, renewal period is taken to be 30 days. So one month prior to the expiry of current subscription is the subscription status of all serials. The system should have a facility to manage the subscription process.

4.2.16 Print of Accession Register

Accession register is a record book with records all accessions and their accession numbers. It is a list of the bibliographic items added to a library collection in the order of their addition. It includes the accession number, brief bibliographic identification, source, and price paid for each item. The purpose of this function is to print accession register on demand.

4.2.17 Print of Invoice Register

Invoice register is a record book with records all invoices and their invoice numbers. A log or report of accounts payable invoices created for a specific vendor, batch, date range or other parameter. The purpose of this function is to print invoice register on demand.

4.2.18 Bindery – Preparation of Sets

This function is particularly important in Serials control system. It is a common practice in libraries to bind the completed volumes for archival storage. An automated system should able to indicate when an item is ready to be sent for binding.
At any point of time, the system should be able to provide on demand the lists of serials that need to be sent for binding. Binding orders should be prepared by the system upon the instruction from authorized staff. The binding orders may contain relevant details like type of binding (material, colour, method etc), information to be recorded on bound material, type of lettering (type face, colour etc), the mode of inclusion of index/content pages and so on.

A good system provides the staff the capability of deferring bindery orders when circumstances dictate, and to indicate to the system a time in future when the binding order should be produced for review. The provision of facilities like cancellation of orders, production of claims notice for non-receipt of bound issues as well as non-receipt of invoices etc., will add to the efficiency of the system.

Upon the receipt of the bound volumes, the system should allow to record the receipt and other details suitably.

4.2.19 Bindery – Order Process

The purpose of this function is to assist the library staff in performing the work related to order process. The serials are prepared as set based on the requirement and may be sent for the Binding process. This function will be used, if there is no inhouse binding section in the library.

4.2.20 Bindery - Invoice Process

The purpose of this function is to assist the library staff in performing the work related to payment of invoices for the library materials received from the Binder.
4.2.21 Bindery – Payment

Upon the receipt of the bound volumes, the system should allow to record the receipt and other details suitably. The purpose of this function is to assist the library staff in performing the work related to payment of invoices for Bound serials.

4.2.22 Title History – Change, Split, Merge, etc.

A peculiarity of the Serials is that the title may change, split, merge etc. for various reasons. The system should allow to perform this options depending upon the requirement. The system should be able to produce the reports for specific kind of titles.

4.2.23 Title Holdings Details

The total stock of materials, print and non-print, owned by a library or library system, is usually listed in its catalog of all the copies, volumes, issues, or parts of an item owned by a library, especially a serial publication, indicated in a holdings statement in the record representing the item in the catalog. One of the advantages of automated systems is the relative ease with which reports can be generated.

4.2.24 Communication through Email to the vendors

This function will help the libraries to exchange information through written or electronic mail to the vendors for any acquisition related matter such as orders placed or reminders to be sent. One of the advantages of automated systems is the relative ease with which reports can be generated and can be directly sent to the vendors by e-mail.
4.2.25 Article Indexing

Once the serial is registered in the system, a professional will scan the serial and select the articles which are important and the thrust area of the institutes. A bibliographic information of an article is inputted into the database. Search feature will enable users to search these articles indexes. A good system has this facility and article indexing feature is getting importance because of the emergence of electronic resources and internet.

4.3 Catalog Module

This module is used for retrospective conversion of books, technical processing of books received from Acquisition Section, printing a range of records for verification, searching by title and accession numbers, authority files for publishers etc. This module broadly handles the following functions:

- Data Entry
- Retro conversion
- Export/Import of records
- Catalogue card generation
- Authority file maintenance
- Report Generation
- Catalogue Search
- User Services
- Stock verification

The following sections describe briefly these various automated functions which are considered in this study:
4.3.1 Bibliographic Standards – CCF and MARC 21

In the online catalog, the description of a specific item, designed to differentiate between copies or versions of the same items. The descriptions consist of the title and statement of responsibility (author, editor, etc.), edition, type of publication, publisher information, physical description, series, notes, etc.

Bibliographic database is a database of resources available at libraries in print format. With the revolution of information technology in the field of libraries, bibliographic catalogue has come up into the form of bibliographic database. Some of the internationally recognized standards and formats are being used by many libraries of different countries for creating databases.

**CCF:** An international standard digital format for the description of bibliographic items is developed by the UNESCO. It facilitates the creation and exchange of data by using ISO 2709 format.

**MARC 21:** An international standard digital format for the description of bibliographic items is developed by the Library of Congress. It facilitates the creation and dissemination of computerized cataloging from library to library within the same country and between countries. The MARC 21 family of standards now includes formats for authority records, holdings records, classification schedules and community information, in addition to formats for the bibliographic record (*Chandrakar et al, 2004*).

4.3.2 Catalog Code - AACR 2 and CCC

Anglo-American Cataloguing Rules (AACR) and Classified Catalogue Code (CCC) are a detailed set of standardized rules for cataloging various types
of library materials. Many libraries follow AACR 2 and CCC for rendering the bibliographic information of the documents in the library.

Use of common standard for cataloguing will make it possible for libraries to pool their efforts through the use of derived cataloguing and shared cataloguing projects. Of equal importance, is the adoption of AACR which has provided consistency and clarity for library users who use those catalogue records to access the diverse collections of libraries.

4.3.3 Multilingual facility

This is an application that can simultaneously display and manipulate a text in multiple languages. Language barriers present a major problem in the effectiveness of resource sharing and in common access to the resources of libraries. Now Unicode is playing a major role in resolving this problem. The system should have the support for multilingual facility.

4.3.4 Authority Files

Authority Control means that names, subjects, and series entries in database are validated against a set of national databases to ensure consistency in the way that those terms have been assigned. Several different authority files can be used for validation. The Library of Congress Name Authority File and the Library of Congress Subject Headings are the most common. Also many libraries are using Sears List of Subject Headings, etc.

The lists of different subject headings developed by different institutions such as LCSH, Sear's List of Subject Headings, MeSH, Thesaurus etc. are available.
4.3.5 Classification Schemes

There are different classification schemes which have been developed by various organizations for classifying the books on different subjects. Dewey Decimal Classification (DDC), Library of Congress Classification (LC), Universal Decimal Classification (UDC) and Colon Classification (CC) systems are the most frequently used call number classification systems worldwide.

4.3.6 Printing Facility

In an automated cataloging system, the data can be searched and various kind of reports can be generated. The following are a few examples of outputs generated by the systems;

Catalog Card – Catalog cards can be printed by using Print of Catalog card function. Facility could be either print of single card or range of series by Accession Number or Record Number.

Added subject headings – Added Subject Headings can also be printed in a similar way as Catalog cards are printed.

Shelflist – The Print of Shelflist Labels feature allows to print the shelflist cards.

Spine labels – The Print of Spine Labels feature allows to print the Spine Labels to paste on the items.

Barcode labels – Barcode Labels can also be a feature that allows to quickly copy or print an item’s basic cite and call number.

4.3.7 Barcode

A printed label containing machine-readable data encoded in vertical lines of equal length but variable thickness, which can be read into an attached...
computer by an optical scanner. In libraries barcodes are used to identify books and other materials for circulation and inventory and to link the borrower's library card to the appropriate patron record in automated circulation systems. Several different technologies exist for reading barcodes. The most common and most accurate is a laser scanner that mounts about 12 inches above a surface. Its beams face downward and follow a number of different paths. Barcodes can be scanned even when presented at odd angles.

A new and innovative replacement for barcode technology is RFID (Radio Frequency Identification Devices). RFID is used in retail environments, and has begun to be installed in libraries. RFID brings many more advantages of barcodes, but uses a different type of reader to collect data. When this technology is used in libraries it allows books to be checked out and returned without the need to physically handle every item. In addition, it makes library inventory projects much more efficient.

4.3.8 Data Conversion

This ISO 2709 for data exchange standard specifies the requirements for generalised interchange format that will accommodate the data describing all forms of material. It describes a generalised structure designed specifically for exchange of data between processing systems and not necessarily for use as a processing format within systems. The format may be used for the interchange of records by using various communication media.

Library systems vendors have a software that enables them to extract data from other sources (spreadsheets, database managers, home-grown programs, text files, etc.) and convert that data to MARC or CCF.
4.3.9 Z39.50 Protocol

Z39.50 is a communications standard which describes the rules and procedures for communicating between two computer systems for searching and retrieving information from databases. It is a “broker architecture” which offers client-based services that interact with external servers through a standard protocol. It enables a remote source to be searched by using the interface of the local client, obviating the need to master a variety of search interfaces and facilitating the integration of bibliographic resources.

4.3.10 Metadata to Catalog Electronic Resources

Metadata describes how and when and by whom a particular set of data was collected, and how the data is formatted. Metadata is essential for understanding the information stored in data warehouses and has become increasingly important in XML-based Web applications.

4.4 Circulation Module

The circulation control module is an important function of library management. It keeps track of members' registration, issue, renewal, return and reservation of documents. Circulation is a central and highly visible function of a typical library. Circulation, which is often compared with inventory control, involves a great deal of record keeping and correspondingly, staff time. It is highly essential that the records have to be accurate and all information has to be updated immediately after each transaction. In other words, circulation control is useful if it is in online real-time interactive mode.

Circulation, by definition, encompasses all aspects of patron loan processing and management, including closed reserves, holds, material booking
and in-library use of the collection. Automated support for circulation control vastly improves library's ability to rapidly and accurately record the loan transactions, to monitor these transactions, to record return of lent items and to support other related circulation functions (*Boss and McQueen, 1982*).

The objectives of an automated circulation control may be summarised as follows:

- To create patrons details
- To record timely and accurately the loan transaction data
- To have efficient and effective control over dues, fines and records
- To accurately provide information about the status of a book and/or library loan status of a borrower
- To provide necessary statistical and management reports.

The following sections briefly describe the functional requirements of an automated circulation system.

### 4.4.1 Registration of Users

As and when a new member joins the university and intends to use library, he/she will be given membership after certain formalities are completed and allotted a member code. Library members will be registered by categorywise. Types of documents, period of issue, and fine to be charged in case the document is overdue is determined by categories. Some software will automatically generate the member code and in some software the system will allow to enter the member code.
4.4.2 Collection of Library Fee

When a new member joins the university and intends to use a library, membership will be given after receiving the requisite library fee. Library members will be registered by categorywise and fee will be charged according to the library policy.

4.4.3 Collection of Library Deposit

Library deposit will be collected when a new member joins the Library as a member. Library members will be registered categorywise and the library deposit will be collected according to the library policy. It has be returned to the member after the membership term expires. The system should have facility to carry out this process.

4.4.4 Print of Member Identity Card

The means by which the staff at the circulation desk of a library ascertain that a patron is a registered borrower, usually the person's library card, student ID card, or a substitute. As and when a new member joins the organisation and intends to use the library, the member will get a membership after certain formalities are completed and a member code is allotted. Library members will be registered categorywise. Some of the software will automatically generate the member code and other software system will allow to enter the member code. The member identity card can be printed once the registration is over.

4.4.5 Print of Bar Code for Member Id Card

Bar code can be printed on member identity card based on the member code. The barcode can be printed either by library software or through the external software.
4.4.6 Calendar

A calendar is a holiday list of an institution. This calendar will be helpful during transaction process for fine calculation and adjusting loan periods according to the list of holidays.

4.4.7 Renewal of Memberships (continuation)

This function allows for the patron to extend the loan period. This function may be thoroughly controlled by the patron type, material type, the reservation status of the book, and other conditions as applicable to an individual library. As many a time, renewal has to be done with or without the presence of the patron and/or item, the control has to be exercised by the system automatically. In case the item to be renewed has a hold (reservation) or recall outstanding, the renewal should be denied, of course, depending on the library policy. Again, depending upon the library policy, successive renewals may be restricted.

4.4.8 Issue and Return of Items (Transaction)

All the transactions, i.e., issuing/returning, renewal, reservation, cancel reservation, written off, etc. of documents are carried out and stored in different files/databases. The following transactions are performed in automated circulation system.

4.4.8.1 Issue of Items

Charge/Issue is one of the fundamental function in a circulation control system. For charging an item, the Member Code and Accession Number are identified to the system (through Barcode scanner or keying in the data or some
other means) which are eventually validated by the system for their correctness. Only if both are through with the validation check, the system records the transaction and allows the patron to borrow the item. It also sees whether the total number of items borrowed is within the borrowing privilege of the patron.

In the interest of efficiency, the system should support for having different patron types with different borrowing periods. Further, it should allow different types of items to be loaned for different loan periods as prescribed by the library.

4.4.8.2 Return of Items

The discharge function basically involves receiving the item back into the library and updating the patron's record to reflect the returning of the item and producing an acknowledgement for returning the item, if required. The system after suitable validation, updates the concerned records suitably.

4.4.8.3 Overdue

An item is said to be overdue, if it is not returned to the library on or before the date prescribed at the time of charge or renewal or recall. The system should detect the overdue items and produce suitable overdue notices to the patron.

4.4.9 Issue/Return of Items using Barcode Scanner

The issue/return function can also be performed by using barcode facility. The barcode label pasted on the book and members' identity card to facilitate fully automated circulation control. Several different technologies exist for reading barcodes. The most common and most accurate one is a laser scanner.
that mounts about 12 inches above a surface. Its beams face downward and follow a number of different paths. Barcodes can be scanned even when presented at odd angles. This will save the time of manual entry.

4.4.10 Renewal of Items

This option is to renew the documents already issued to the members. The member can request for renewal of the document by its accession number.

4.4.11 Reservation of Items

This function helps the operator to reserve a document which is on loan. It is usual practice in libraries to maintain the holds queue on the first-come first-serve basis. Even in this function, before actually recording the holds, the system has to govern the hold placement by material type, patron type and other conditions as required by the library policy. Upon the issue of item, the system should produce a notice to be sent to the patron at the head of the queue. If the patron does not claim the item within the specified time, the system should automatically send the notice to the next patron in the queue.

4.4.12 Reminders to the Users (Recall of a document)

It is not an unusual situation in libraries to recall the items borrowed by a patron. Even in this function, the system may allow a recall to be governed by patron type and material type. Though, normally, an item is recalled, if it is overdue and/or is reserved by some patron, there may be other conditions for recall such as item is required for some other purpose in the library, i.e., the item has to be sent for binding and so on.
4.4.13 Issue of No-due Certificate

When a member is leaving the institution, the library has to be issued a no-due certificate for clearance from the library. The certificate contains the member name, member code, and date of issue of certificate details. One may cancel the membership at the time of issuing the certificate.

4.4.14 Reporting of Missing of Items

When a document is not traced by a member or missing in the library, it has to be reported at the circulation desk. The system will generate a note and change the status of a document as missing.

4.4.15 Reporting of Lost Items

When library materials are declared lost by the patron, the system should be able to calculate the replacement cost. If the bibliographic record for the item does not contain the required information for calculating the cost, the system should allow the library staff to enter an amount. Similarly, depending upon the policy of a library, the books may be treated as lost when the system accrues to the account of the patron an amount equal to the replacement value of the item lost (or not returned).

4.4.16 Collection of Overdue Charges

In order to ensure the prompt returning of items, it is usual practice in libraries to levy fines against the patron for failing to return items by due date. Usually, the fine accrued will be calculated upon the discharge of an overdue item. While calculating fines, it is necessary for the system to consider (as per the library policy) the type of item, the patron class, and other specifications as
applicable to individual library. Further, the system should take into account the holiday list while calculating fines. If the library policy allows, the system should allow for partial payment of fines also. An efficient system allows suitably authorized staff for waiving of the fines and levying of fines for document(s) mutilated by the patron.

4.4.17 Maintenance of Replacing Items

The documents which are lost by members will be either replaced by the same title or the money can be collected depending on the institution policy.

4.4.18 Maintenance of Damaged Items

The documents which are damaged, not usable are often written off from the accession register by using predefined procedure of that organisation. Such documents are withdrawn from the circulation.

4.4.19 Inter Library Loan (ILL) Service for Borrowing

When a book or other item needed by a registered borrower is checked out, unavailable for some other reason, or not owned by the library, a patron may request that it be borrowed from another library. Documents received on ILL from other libraries can be issued only to the members. The transaction is recorded in the transaction file.

4.4.20 Inter Library Loan (ILL) Service for Lending

The documents will be lent to other member libraries. The system will generate a report for these documents and status will be changed as issued.
4.4.21 Maintenance of Withdrawal Items

The documents may be withdrawn from the library from time to time according to the library policy. The software will generate a report for such a kind of documents and status will change for those documents.

4.4.22 Issue/Return of Loose Issues of Serials

Circulation of loose issues of serials need to be supported by the serials control systems. All regular functions in a general circulation control systems may be included in this function also.

4.4.23 Issue/Return of Back Volumes of Serials

Circulation of bound volumes of the journals need to be supported by the serials control systems. All regular functions in a general circulation control systems may be included in this function also.

4.4.24 Sending Notices by Email to the Users

This option may be used to send letters to a member about the document issued to him, that is/are urgently required by some other member. The letter addressed to the member to whom the document is issued contains accession number and title of the document details. The communications can be done through the e-mail facility.

4.5 Online Public Access Catalog Module

The Online Public Access Catalog (OPAC) module in its very rudimentary form first emerged in the late-1970s and early-1980s, subsequently going through several generations of development. The basic purpose of library
automation software is to help in creating a database of library holdings, which will, in turn, provide an online catalogue to help the users in identifying and locating their required documents.

The present trend in this field is that these systems are also supporting the Web-OPAC facility, by which the library catalogue can be browsed and linked to the electronic resources over the internet by graphical browsers. These interactive web-OPACs allow the users to access various resources of other libraries, publishers, online vendors, etc. connected to the internet (Reynolds, 1985).

The following sections describe briefly these various search features and functions in OPAC module which are considered in this study:

4.5.1 Author Search

If a user knows the name or part of the name of an author, this field can be used for searching. The Author search makes it possible to get focused results by searching only the part of the catalogue that includes authors' names. This means that, although one is searching every record in the catalogue, the search terms apply only to a small, specific part of each record. Through the author search option, it is possible to search personal name, corporate body, meeting, proceedings, etc. Search option is most powerful feature of most of the automated systems.

4.5.2 Corporate Author Search

This Search option allows the user to search for the required documents authored by corporate bodies, view and print the results.
4.5.3 Title Search (full title)

The feature allows the user to search by the title of a document. This search is used when a user knows the title or first part of the title of an item in the collection. Here, the search focuses on obtaining results specifically from the title field in the records of the OPAC, thus narrowing the search results.

4.5.4 Search by Word from the Title

This search returns records that contain the words in the title. Search results are ranked by relevance. Each keyword is searched across the title field in the catalogue record and provides a broader result set.

4.5.5 Search by Keyword Combined with Subject

This search returns records that contain all, some and one of the words in the query. Search results are ranked by relevance. Each keyword is searched across the subject headings field in the catalogue record and provides a broader result set. In general keyword searching, the patron can provide any topic of his interest and the system will help in finding the relevant items.

4.5.6 Search by Subject

For a subject search, the patron needs to use the Subject terms or Headings the Librarians assign to each item that is acquired by the Library. The Librarians use a specific list from which to choose these terms, such as LCSH, Sears List, MeSH, etc.

4.5.7 Search by Using Boolean Operators

Boolean operators are used to broaden or narrow the search request by using AND, OR, NOT operators and also combining the various search
options. For example, one can choose to find a record by combining the author's name together with the title of the book. Similarly, one can combine different subject headings or general keywords to narrow or widen the search.

4.5.8 Search by Accession Number

This search returns the records that contain the searched accession number in an item. This search is particularly helpful in knowing the status of an item when a user knows the Accession Number. The system allows the user to determine the item-level circulation status information in real-time, and to note if the items have special locations (in transit, reserve, etc.) or statuses (recalled, on hold, etc.).

4.5.9 Search by Call Number

This search returns the records that contain the searched call number in an item. A Call number is the address of an item indicating its location within the library. The call number comprises of the class number, the book number and often a date or a volume number or even a copy number. To perform this search the patron has to be aware about the class or call number of an item.

4.5.10 Search by the Shelfmark of a Book

The user has to select 'Shelfmark' as a choice for display. This search returns records that contain the search made by Shelfmark of a document. The results screen displays the author, the title, the edition, the publication year, etc along with a Shelfmark. The shelfmark link will display where the item is shelved, e.g. Text Books, Reference or main collection. This search will be usually helpful for special collections such as Music, Video, etc.
4.5.11 User information

The user can search the OPAC by member identity number and the details usually showed on loans, reservations, charges, etc. It allows the user to see a list of the Items he/she currently has on loan, showing the length of the Loan Period and the Due Date for each. The number of other people who have reserved each Work is also indicated. It may be possible to renew loans, if the Library chooses to enable this functionality. The system allows the user to determine the item-level circulation status information in real-time, and to note, if the items have special locations (in transit, reserve, etc.) or statuses (recalled, on hold, etc.).

4.5.12 Serial Issues Received/Expected

The system allows the user to see the status of the serials issues received etc. The predictive check-in system generates a box for each issue, supplement or index that the library expects to receive. The data can include volume and issue number, cover date, and expected arrival date. The user can access this information through the OPAC.

4.5.13 Status of Title (issued, reserved, withdrawn)

The system allows the user to see records for materials in all status categories such as fully cataloged, provisional records, course reserves, on order, in process, lost, withdrawn etc. The system allows the user to determine the item-level circulation status information in real-time, and to note, if the items have special locations (in transit, reserve, etc.) or statuses (recalled, on hold, etc.). The user can access this data through the OPAC.

4.5.14 Other Language Interfaces Available on the System

It is used to change the display mode of the language. So the catalogue data of the reference result including multilingual characters can be displayed
rightly. The Multilingual search system, integrates advanced linguistic technologies in a user friendly interface and bridges the gap between the vernacular languages.

4.5.15 Article Titles in Periodicals

Indexes and Abstracts offer author, title and subject access to articles in journals, magazines, and newspapers. An index will provide a citation which fully identifies a work; its author, title of article, title of journal, date of publication, the volume, issue and pagination. An abstract includes a summary of the work being cited. Users can access the “Articles Index” in the library automation software maintained by the library.

4.5.16 Restriction by Date of Publication

Search restriction is a useful technique for avoiding retrieval of too many references in response to a search, by narrowing it down. Upon selecting the option for restricting a search by publication date, the user can enter the required date or range of date. The input screen provides information on the formats for date searching that are available.

4.5.17 Restriction by Language of Publication

It is possible that users can restrict their search to certain language for the materials. Selecting to limit a search by the language of a publication displays a list of the different languages available in the system. The user has to choose the language and start searching the records required.

4.5.18 Restriction to Periodicals, Monographs, Series etc. (Format)

Selecting to limit a search by the format of a publication displays a list of the different formats available. The user can select the Formats required. The
library may have created collections which group together similar types of material e.g. periodicals, monographs, series, etc. To limit the search to only include material from within a specific collection, users can select such options as Books, Serials, etc.

4.5.19 Save/Download Data from the Catalogue

The system allows the user to search a set of bibliographic records in order to save and download or print. The records can be saved by relevance or chronological or alphabetically depending on the system features.

4.5.20 Non-print Material

Selecting to limit a search by the format of a publication displays a list of the different formats available. The user can select the Formats required. The library may have created collections which group together similar types of material e.g. electronic, print, non-print like CD-ROMs etc.

4.6 Services Module

Library management systems provide an effective media to deliver the services to its users, be it on the university campus or off the campus. Accessing bibliographic databases and conducting the specific searches on various topics, accessing library OPACs, personalised service such as SDI, CASs can be provided at minimal cost and effort. Various kinds of reference services can be generated and provided to the patrons using integrated library software.

The following Sections will give a brief account of the services which are considered for this study:
4.6.1 Interlibrary Loan Service (ILL)

An interlibrary loan module provides the staff with an information management system for interlibrary loan transactions. Interlibrary loan (ILL) service provides access to resources not owned by the library. Libraries borrow materials from other libraries and loan materials to other libraries. It can also monitor the library’s ILL activities, e.g. the number of items borrowed by individual clients, from where, for whom, etc. This may also include the facility for reserving a book, if it is on loan in the lending library or lending a required documents to other members libraries. The actual transmission of the book will be through postal mail or through courier services. Success of this service depends on the cooperative spirit of the participating libraries. Lending and barrowing functions can be carried out from this option.

4.6.2 Document Delivery Service (DDS)

It will enable a library to request another library for a copy of a document to be transmitted via e-mail, fax or photocopy. This service may be largely used for transmitting a few pages from such documents such as journal articles or chapters from the books.

4.6.3 Web Access (Links from the Online Catalog)

The online catalog provides one means for accessing electronic resources. Through title searching and subject headings, users can find any electronic journal the library subscribes to and go to that journal through the link provided. The user can find the journal, and later following publisher link the user can get hold of the individual articles.
4.6.4 Current Awareness Service (CAS)

The data entered for cataloging of books are used for the generation of accession list. Usually, accession lists are generated at fixed intervals. The list of latest additions to the library namely books, periodicals, patents, standards, audiovisual material or any other can be put into the internal web for user’s attention. Author, title and subject indexes can also be generated.

4.6.5 Selective Dissemination of Information Service (SDI)

The user profile may be created with the fields like - Name, Keywords, etc. and Keywords may be matched with the keywords of databases containing the details of books, journals, etc. User’s requests may also be collected through E-mail or pre-defined mechanism. At fixed intervals, the matched lists may be sent to respective users.

4.6.6 Listings Service/ Notification of New Materials

The documents which are added as a new collection to the library are listed as New Arrivals List. The list can be sent through email to the concerned users or it can be hosted on the library website.

4.6.7 Routing of Journal

Some libraries follow the procedure of routing the issues among its users before putting them up for display. The list of members, who are to avail this facility, is to be prepared by the library along with the number of days each of them can avail it. The systematic circulation of serials will be among the members of the library in accordance with prefixed routine procedure.
4.6.8 Table of Contents Service

The OPAC contains bibliographic records of all the resources in the library. The OPAC records do not contain the contents of the books, journals, videos, etc. Libraries can prepare or provide a link to the internet resources for a table of contents of the documents. Many records even contain the Table of Contents of the item and where applicable records will contain links to the full-text of electronic resources, electronic journals and other selected Internet resources.

4.6.9 Bibliographical Enquiry Service

The OPAC contains bibliographic records of all the resources in the library. It only contains information about those items (i.e. bibliographic information) like the author, title, publisher, call number, subject headings, number of copies, circulation status, etc. If a user needs any specific bibliographic information, the required information or list can be generated through the system.

4.6.10 Library Reference Service by E-mail

E-mail is an important communication based services. It enables members in the network to transfer/receive message from any part of the world by using the data networks to which they are subscribing. E-mail provides the facility through which other services like inter-library loan requests, location search in the union catalogue, document delivery, request transmission, referral service and academic communication can be implemented.
The word "reference" in a library context refers to reference work, which is the task of providing assistance to library users in finding information, answering questions, and otherwise fulfilling users' information needs.

4.7 Conclusion

Although each library system differs significantly in the way in which it has been implemented, at the level of basic functions all share common features. Normally, an average university library may use all or some of these functions and features for the routine housekeeping operations and providing various types of services.
References


