

## Constraints for evaluation of acquisition operations and supplier performance using LibSys

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The objective of this paper is to discuss the constraints faced while evaluating the book acquisition system at the Central Library of Indian Institute of Technology, Kharagpur using reporting options offered by the library automation package, LibSys. The study examines how the Acquisition Section of the Central Library, IIT Kharagpur meets the expectation of its users and suppliers using parameters such as time involved for ordering, accessioning for making payment. The Section is also interested in assessing the performance of its different suppliers considering the percentage of books supplied and the time required to supply them. Since the evaluation is to be conducted in a time bound manner, it has been decided not to use the manual registers to collect the required data considering the time involved in scanning and analyzing manual data. Only option left out is to use the LibSys that facilitates data outputting through its different reports. This paper discusses the constraints faced while collecting data and proposes the need for 'customer specific' report options in commercial software packages. The paper also highlights the importance of suitable provisions in automation packages for evaluating the performance of different sections of library and its various stake holders.

### Introduction

Acquisition work is a back office kind of activity of any library that regulates acquiring and preparing materials for use into serviceable articles without delay and at minimum cost<sup>1</sup>. The acquisitions department provides a vital service for the entire library processes whereas methods of evaluation for the productivity of the department are rare<sup>2</sup>. Alsbury makes interesting comparisons about the acquisitions department of a library with its suppliers and considers the degree to which the criteria used to evaluate supplier performance can be applied to the evaluation of acquisitions functions<sup>3</sup>. The general concept of evaluation of the acquisitions function is based on a traditional view of acquisitions as a support activity for the building of library collections, and as a transaction-based operation full of routine tasks and detailed procedures which lead to conflicts in the ways the quality and effectiveness of the process are judged<sup>4</sup>. The basic elements in the acquisition purchase procedure are<sup>5</sup>:

- i. Searching the library records to determine that book is not readily available,
- ii. Checking the correctness of the bibliographic description, including the standardized entry,

- iii. Ordering material and recording the order for temporary internal control,
- iv. Receiving material, updating the order records, and approving the invoice for payment,
- v. Forwarding it to the catalog department, and,
- vi. After the title has been catalogued, clearing the order record from the active files.

The Acquisition Section of the Central Library, IIT Kharagpur conducts itself in a mix of manual and computerized operations. The computer operations are conducted through the library automation package, LibSys (see URL <http://www.libsys.co.in> for details about this package). This package is used to check for duplicates to prevent procuring multiple copies of books, generate order forms, process bills and complete bibliographic details for onward processing of books in the processing and circulation sections. Though order files are still maintained using reports provided by the LibSys, the accession and invoice registers are maintained in handwritten forms because the customizations provided by the LibSys are not fully in agreement with the local requirements.

The manual and computer operations conducted in tandem sometimes increases the time required to conduct

various tasks related to the acquisition operation thereby reducing the overall efficiency. Similarly, working with different suppliers and in a totally decentralized fashion in a large institute often leads to certain other difficulties. Thus, to examine how the Acquisition Section meets the expectation of users and book suppliers, an evaluative study is conducted to assess the efficacy of the acquisition operations. The success of the Acquisition Section depends to a large extent upon its book suppliers who take special efforts to arrange and supply books recommended by the teachers and researchers at the earliest possible time. Thus it is very crucial to assess the performance of the different suppliers of books. Performance evaluation studies have also become crucial as libraries are getting more quality conscious like other service institutions.

For the present study, since the evaluation was to be conducted in a time bound manner, manual registers were not used to collect the required data considering the time involved in scanning and analyzing the same. The only option left out was to use the data provided by LibSys that facilitates data outputting through different reports.

#### **Acquisition Section of Central Library, IIT Kharagpur**

The Acquisition Section of the Central Library, IIT Kharagpur collects requests for books from about 500 faculty members attached to over 30 departments of the Institute. The Section gets the required data entered in the LibSys software. It then interacts and places orders for these books with around 40 suppliers who are local as well as outstation, checks and accessions the procured books and transfers them to the Technical Processing Section for further processing such as classification, cataloguing, and indexing. The current annual budget allocation for purchasing general books (books meant for research activities procured in single copies) as well as textbooks (books prescribed for courses and normally procured in multiple copies for Text Book Library (TBL)) is Rs. 1.5 crores and around 3000 books are added to the collection. The section annually places orders for purchasing over 1600 titles, generates about 1000 orders and processes around 700 bills. This involves substantial professional and administrative work, especially because books are ordered right from the first month of the financial year and books as well as bills are processed till the last month of the financial year.

The broad activities of the Acquisition Section are as follows:

- Receiving requisitions for purchasing newly published books, reports and theses from library users,
- Checking for duplicate copies of books,
- Generating control numbers by making the required basic bibliographic entries in the LibSys,
- Seeking the approval of recommended non-duplicate titles from the Departmental Purchase Committee (DPC),
- Generating orders and sanction forms from the package,
- Despatching order forms to approved suppliers and monitoring the status of books ordered,
- Checking and receiving ordered books,
- Assigning accession numbers manually and through LibSys,
- Processing bills for payment,
- Answering any intermediate queries from users, suppliers and administration, and
- Providing status report about book budget and acquisition activities at any point of time.

#### **Evaluation parameters for acquisition section and supplier performance**

As the focus of libraries has shifted from collection building to providing access to information, acquisitions are viewed as a service to meet the information needs of library users<sup>6</sup>. It is in the interest of every acquisitions or collection development librarian to develop for each of the dealers serving the library a performance profile to obtain the best service<sup>7</sup>. The Acquisition Section of Central Library, IIT Kharagpur, undertook to assess the performance of its different suppliers as well as different activities of the Section based on the following parameters:

##### **Evaluation parameters for acquisition section**

- Time involved in ordering process
- Time involved in accession work
- Time involved in making payment to the supplier

##### **Evaluation parameters for supplier performance**

- Percentage of books supplied
- Time involved in supplying books to the library

IIT, Kharagpur

ACCESSION REGISTER

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Date/ Accy No	Title Details	Source	A/c Head	Cost	Bill No Date
20/04/2004					
173841	Khahibullaev, P Khahibullaev Phase separation in soft matter physics: micellar solutions microemulsions critical phenomena Berlin: Springer, 2003 ix+180p. 3-540-46890-4 530.474 KHA/P	DIR79	CHY	URP 59.95 (Rs. 3451.32)	15398 25/03/2004
12/05/2004					
173842	Graessley, William W Polymeric liquids and networks: structure and	DIR79	CHY	URP 60.00 (Rs. 5139.60)	15398 25/03/2004

Figure 1 - LibSys accession register with "Page Width = 80 cols"

Vendor profiling provides the librarian with a better understanding of the limitations of a vendor's services, take advantage of conditions in a buyer's market, and use the information from vendor profiles to make sensible decisions<sup>8</sup>.

The acquisition system in LibSys is designed to meet all the requirements of a modern library in acquiring its collection. The various functions related to acquisition are: checking titles for duplication, procuring approval for new titles, placing orders, receiving supplies, invoicing and accessioning, requisitioning payment, etc. Some items are received as gratis and though money transaction is not involved, these also have to be processed into the collection. Queries related to acquisition may be by any of the following: title, order no., invoice, vendor, the budget-head, accession register, etc. Results may also be printed, if necessary. The various reports generated by the system include an Approval form, Purchase Orders, the Titles On-order list, Payment Requisition Advice, Overdue Notices, Accession Register, Bill/Invoice Register, etc. Records are maintained for budget heads, vendors, exchange rates for various currencies, etc. Acquisition related functions are categorised as Title initiation, Approval Procedure, Ordering, and Invoice processing/Accessioning. The different submenus under

Acquisition are: Enter Title, Approval Process, Place Order, Receiving, Invoice Processing, Budgets, Queries, Record Keeping, Reports, Housekeeping, System Setup and Online searches. LibSys version 4 is used to generate various reports discussed in this study.

### Constraints faced with LibSys reports

The Accession register of the year 2004 – 05 was generated using Libsys by selecting the option "Page Width = 80 cols". This Accession register (Figure 1) includes the following information

- Accession Date / No
- Title Details
- Source
- A/C Head
- Cost
- Bill No / Date

Many fields required for the evaluation are absent in this Accession Register. Then an attempt has been made to generate the Accession Register by changing some options and parameters in the corresponding LibSys report with the option "Page Width = 132 cols". This report (Figure 2) generated some extra fields of Accession register. These extra fields are as follows:

ACCESSION REGISTER

Page: 1  
Date: 1

12/11/2005

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Date	Accn. No.	Title Details	Source	Acq. Budget	Cost	Misc. Chrgs	Bill No.
Ver.	Remark		Mod. Head		Net Amt	Exch. Rate	Date
Res.							Ord No./Date
20/04/2004	176841	Khabibullayev, P Khabibullayev	DIR79	F	INP 59.95	15.001530.474	KH115398
Free		Phase separation in soft matter physics: micellar solutions, microemulsions, critical phenomena Berlin: Springer, 2003 ix,180p. 3-540-43890-4 3-540-43890-4 ASIAN BOOKS PRIVATE LIMITED			(Pg. 3451.32) * 2933.63	A/P 57.57000	25/03/2004 203883 19/02/2004
12/05/2004	176842	Crossley, William W	DIR79	F	INP 60.00	15.001547.70454	115398
Free		Polymeric liquids and networks: structure and properties NY: Garland Science, 2004 xv, 559p. 0815341595 0815341595 ASIAN BOOKS PRIVATE LIMITED			(Pg. 5139.60) * 4368.66	6RA/P 85.66000	25/03/2004 203883 19/02/2004

Figure 2 - LibSys accession register with "Page Width = 132 cols"

- Acquisition mode
- % Discount
- Order No / date
- Remark
- Record
- Budget Head
- Class No.
- Net amount
- Ver
- Exchange rate
- Miscellaneous charges

But this Accession register alone is not enough to provide all the data required for the evaluation work. The Bill No./Date, Order No./Date, Accession No./Date etc., have been identified in respect of a particular title. Rest of the data like control no., its creation date and payment

request no., are not available in this accession register. This warrants searching for alternative report options in the package to extract the required data. There is no such facility in LibSys to generate a single report containing all the needed information. As a result, two more reports had to be generated to collect the missing information. One of them is the "Title in Acquisition" and the other is "Invoice Register". The report generated through the option "Title in Acquisition" is shown in Figure 3.

This report provides the list of "Accessioned titles" supplied by a particular supplier. For example, the report of "Titles in Acquisition" containing the information i.e., "Accessioned titles" of the book supplied by one supplier for the year 2004 – 05 was generated. This report contains the following information:

Page : 1  
Date : 13/11/2005

Cut-off Period : From - 31/03/2004 Upto - 1/04/2005  
Vendor : dyoti, the book people

S.No.	Budget Head	App No/Date	Title	Order No/Date	Status	Price	Qty
1.	SC/ST	2/12/2004	Linear algebra / Lipschutz, Seymour. ; TMI, 1989	50601(11/04/2005)	Accnd	250.00RS 23053	5
2.	TBL	30/08/2004	3G Networks: architecture, protocols and procedures; based on 3GPP specifications for UITS WCDMA networks / Kasper, Smit. ; TMI, 2004	204545( 8/01/2005)	Accnd	495.00RS 30140	5
3.	SC/ST	19/01/2005	Abstract algebra / Dummit, David S. ; John Wiley, 2003	50603(11/04/2005)	Accnd	5.50USD 24441	5
4.	TBL	2/08/2004	Adsorbents: fundamentals and applications / Yang, Ralph T. ; Wiley Interscience, 2003	204503(18/08/2004)	Accnd	99.99USD 19310	1

Figure 3 - LibSys report for "Titles in Acquisition"

- Serial Number
- Title
- Approval Number / Date
- Status
- Control No
- Budget Head
- Order Number / Date
- Price
- Quantity

The Date of "Approval Number" has been treated as "Control Number Creation" date. With the help of this report the "Titles in Acquisition" for every supplier has been generated.

The report, "Invoice Register" shown in the Figure 4, provides information on the fields as follows:

- Serial Number
- Amount
- Order Number / Date
- Request Number/ Date
- Accession Number
- Invoice Number / Date
- Miscellaneous charges
- % Discount
- Cheque No / Date

In this report there was the facility to specify the option to generate the Invoice Number with the titles or with the Accession Number or both of them.

Thus three different reports, i.e., "Accession Register", "Invoice Register" and "Titles in Acquisition" were generated. While comparing these three reports, it was found that there is a common field "Order Number / Date" in all these reports (table 1) using which data can be compared in more than one report and all the required data for the proposed evaluation collected. In this table, fields common in two reports are shown in italics and those common to all three are in bold and italics.

It was also observed that data was missing in "Accession register" generated for previous years like 2003-04, 2002-03 and 2001-02. This is surprising because while checking with individual accession numbers in the query option, data for a particular book has been displayed, whereas the same is shown in the report format of

LIB, Bangalore BILL REGISTER Page : 1  
Date : 12/11/2005

Cut-off Period : 31/03/2004 - 1/04/2005

S.No.	Invoice... Cheque ...	No.	Date	Amount	Misc Chrgs Order No. / Date	%Dis Req No. / Date	
Aryan Publishing Co. Pvt. Ltd. (APC)							
1	470		27/07/2004	5409.00RS	204075 1/06/2004 204000	15.00 9/02/2005	
	- Chirality: physical chemistry / Symposium on the physical chemistry of chirality. No. 1, Ban.					* 180502	
2	385		12/07/2004	15935.00RS	204076 1/06/2004 204116	15.00 2/09/2004	
	- Encyclopedia of environment and pollution control. / U S Environmental Protection A.					* 179768 -179768	
	- Poverty a global review: handbook of international poverty research / Gyen, Elva.					* 179771	
	- World of earth science / Letter, X Lee.					* 179772 -179773	
	- Knowledge-based intelligent information engineering systems and allied technologies: Proceedings / International conferences on Knowledge-based Intelligent Info.					* 179769 -179770	

Figure 4 - LibSys report of Invoice/Bill Register for the year 2004 - 05 with Accession Number and Title

Table 1 - Field comparison of three different LibSys reports

Invoice Register	Accession Register	Titles in Acquisition
%Dis	%Disc	S. No. App No/Date
Accession No.	Accession Date / No.	Cntrl No
Amount	Title Details	Title details
Cheque No. Date	Bill No / date	Budget Head
Invoice No. Date	Budget Head	Price
Misc Chrgs	Class No.	Qty
Order No / Date	Order No/Date	Order No/Date
Req No. / Date	Acq Mod	Status
S.No.	Cost - Misc charges - Net Amt - Exch. Rate	Approval Number
	Ver.	
	Remark	
	Source	
	Rec.	

Table 2 - Data mismatch in manual and LibSys accession register for 3 years

Year	Type of Accession Register	Entries (Manual Accession Register)	Entries (Lib Sys Accession Register)
2003 - 04	General	1950	46
	Text Book Library	1845	65
2002 - 03	General	1705	3
	Text Book Library	1160	0
2001 - 02	General	3236	3
	Text Book Library	812	0

accession register. The number of entries in the LibSys Accession Register for these years is shown in Table 2.

It was noticed that there are minimum entries in the automated "General Accession Register" and no entry in the "TBL Accession Register" for the years 2001 - 02 and 2002 - 03. Actually the number of entries for these years is more as per the manual accession register. Thus it becomes very difficult to collect the required data from the LibSys Accession Register and other reports are to be explored to extract the relevant information from LibSys. The reports are scanned again and found that the four dates viz., Control Number creation date, Order date, Bill/Invoice date and Payment Request date could be collected from the reports, "Titles in Acquisition" and "Invoice Register". The "Accession number" of a particular title is collected from the "Invoice Register" and put in the "Queries" option of the LibSys "Accession Register" and identified the Accession Date of that particular title identified. This paper has purposely avoided giving details of actual data obtained from the study as it was not its main objective.

#### **Performance evaluation options in automation packages**

Some constraints are faced in this work largely due to the lack of suitable reporting options. If there is an option in the LibSys to generate the report in which all the five required dates would be generated in a single window, then the evaluation exercise would have been easier. Further, if there is any option to generate report supplier wise, then supplier analysis becomes easier for the Acquisition Section as well as for the library authorities.

It has been felt that the commercial automation packages should give such options through which librarian and institution head can easily evaluate qualitatively (supported by enough quantitative measures) the performance of the different sections of the library.

The library automation packages like LibSys hold a huge collection of data about various housekeeping activities in the library. But there are problems in retrieving this data as per the needs of the individual library essentially due to the rigidity with which they incorporate data retrieving options. These packages only provide options to offer quantitative aspects of data and totally negate options to make qualitative analysis of the quantitative data assimilated. However these options have become more crucial due to the quality and performance consciousness gaining more prominence these days. Library automation packages like LibSys can easily provide these options for the following without any drastic modification in their database structure or associated programming:

1. Out of the requisitions received by the library, how many books are ordered in one week, two weeks, three weeks, one month, and other time durations with percentage out of the total requisitions handled in a particular period or financial year?
2. Out of the ordered books, how many books are supplied by each of the supplier in the time periods specified?
3. Out of the supplied books, how many books are accessioned by the library during a specific duration like in a week, fortnight, month, quarter, etc?

4. Out of the accessioned and processed books, bills for the same are processed after what duration?

Facility to elicit the above information in one or more screens will be of immense help to assess the qualitative performance of the Acquisition System and the suppliers. The in-charge of the Section can thus easily ascertain the percentage of supply and late supply which may lead to placing unsupplied orders to the best performing supplier leading to better realization of books ordered. Similar features could also be included for other sections which would help the librarian and head of institution to qualitatively evaluate (supported well by quantitative data at the same time) the different sections of the library. This also helps to modify the operational procedures and redeployment of staff to increase the overall efficiency of the different sections of the library. This will also help to eliminate non-performing suppliers and encourage well performing ones leading to better performance both on the part of the library and its suppliers.

### Conclusion

The paper has discussed the practical problems faced in collecting data from the LibSys package to evaluate the acquisition system and book suppliers in the Central Library of IIT, Kharagpur. The paper also attempted to highlight the importance of 'customer specific' reporting options in library automation packages which gather qualitative aspects of a library system using the

quantitative data assimilated from the different house keeping operations. Such options no doubt make it more convenient for library authorities to evaluate the performance of different sections of library and its various stake holders. This would also make the automation packages more customer-friendly.

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