

Library Services and Generated Data: Using Available Statistics to Improve the Library Services

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ABSTRACT

This study is conducted to assess the availability and usefulness of statistics generated in Nigerian University libraries. Three University libraries from each of the six geo-political zones of Nigeria were selected for the study. Questionnaires were used in data collection. Data collected were analyzed using frequency counts and percentages. On the frequency of recording library statistics, all the libraries surveyed collected data daily and kept records of registered users. None of the libraries surveyed kept records of the number of people whose visit were not related to information gathering. As regards the rate of book use, all the libraries kept records of the number of books consulted, returned, renewed and re-shelved daily. There was variation in opening hours. Few of the libraries open for services on Saturdays and Sundays, for only a limited period. All the libraries surveyed reduced opening hours during holidays. Despite automation efforts observed in most of the libraries, manual record of circulation statistics has not been completely abandoned. While majority of the institutions renew their statistical indicators (such as print materials expenditure, database etc.) annually, few of them do so quarterly. The findings of this study showed that statistics generated in library operations were useful in improving library services. These were most important in portraying the activities of the library to the University communities especially in sourcing for fund and making other necessary demands for improvement.

Keywords: *Statistics, data, Library, University libraries.*

INTRODUCTION

Libraries kept record of data generated in various forms before the involvement of electronic resources. The advent of information technology has transformed the method of data collection in libraries. This has gone further to provide materials for strategic planning. The advantages of automated data collection system are more than the manual system. However, due to problems of availability of infrastructure, managerial ability and necessary funding most libraries are still operating the manual system. Library managers appropriate services of high quality which are useful in justifying their demand for funding. Collected statistics is an easy way libraries would justify request for expansion and improvement of their facilities. Well trained staff could organize these statistics to provide a workable set of data which when properly organized, provide the basis for sound decision as regards planning on the improvement of services and resources. Statistics collected from electronic system are valuable. However, the difference between in-house generated and vendor generated statistics still pose problems. There have been discrepancies when the vendors define the

measure differently from the way the in-house data are presented. If there is disagreement on clear definition of measures, there is bound to be non-conforming figures collected. Vendors often set up measures that supply information which the library may not accept. Other problems relate to access often created by password protection and inability of users to communicate and compare what they have generated. Funding bodies base their decision on the available information which demonstrates the usefulness of the programme they are funding and how relevant they have been to the institutions. This means that the available statistics help to support the demand for upgrading of fund allocated. The image of the library depends much on the satisfaction derived by users who interact with the resources. The number of materials in circulation helps in decision making on the area to channel the fund. The rate at which users frequent the library and their demand for extension propels the library to consider a change of services such as hour of operation. It will also help to know the busiest period of service which affects the work schedule of staff.

At management level, statistics collected during daily routine duty in the library has become an indispensable tool in decision making. It shows a picture of how effective and efficient the library has been in its services to the community. Programmes and services lunched by the library are assessed based on the comparison of statistics collected from services. Statistics makes it possible to compare presentations from every section of the library. It also renders assistance on how to uplift sections that may need urgent attention. This is because the downward trend in one section seriously affects performance in other sections. In the attempt to keep regular statistics, new information emanates which are very vital and useful in carrying out both the traditional functions of the library and new duties that may arise. Quite often it is helpful to go through statistics collected earlier or through other sources. These may be relevant and often will avoid duplication of effort. Outside sources of statistics are often useful. Demographic data on expected user population which included those that have never visited the library is helpful in future planning.

Statistics collected on library operations are indispensable in the effective management of the library. Adetoro (2008) observes that libraries rely on numerical data to understand the present and make corrections and improvement in the future. In many libraries, statistics are compiled on daily, weekly and annual bases through recording activities and services they provide. According to Sokoya (2002) library statistics include: traffic, registered users, materials consulted and journal loan which are described as derived record of library use. Hameed (2004) emphasizes that statistics are effective tools for library management appraisal. In line with this, Horvik (2006) reports that institutions have put in place systems that will enable them collect data on users and output. The progress in user satisfaction is a serious compelling feature which will make every funding institution yield to request for funds. However, accuracy is essential in data collection because error will dislodge the expected aim. Hence, Jilovsky (2005) emphasizes the need for carefulness and consistency in data collection and insisted that reliability is essential to build confidence into the figures. Data intended for a particular purpose can be used for a different purpose as well. This same author also proposed that collection and processing of data be regularly reviewed and updated to ensure that they remain relevant and usable in the changing

information environment. Egghe and Rousseau (2001) propose that all staff be involved in data collection by making them understand the purpose of collecting such statistics. Their understanding of the importance will make them put in maximum effort which will give genuine result. Proper sampling and survey technique are required to make data reasonably accurate and easily usable. DeBacher (2008) discusses about libraries that still operate manual circulation system and concluded that they can also keep actual records. In the same way another alternative method of data collection has been suggested by Borgman and Furner, (2002). In their view, citation analysis could be the next option. Study of the citation index reveals performance of users whose names are listed. When the statistics have been adequately collected, the next issue that comes up is how to use the data and for what purpose. Roswitha and Boekhorst (2007) observe that academic libraries have been collecting data for use in strategic planning and decision making at both operational and managerial level. McDonald (2006) observes that online data can be accessed anytime and from anywhere and remains for future use. Whatever method one decides to use, accuracy is the watch word that will provide an effective and workable statistics which actually forms the bedrock of defense that protects the library from being subdued when soliciting for the attention of the management.

Since the advent of information technology, library services have been so much affected that it has become the live wire of service system. Nfila (2009) is of the opinion that information technology has transformed the generation of management information for decision making. It has also provided avenue that enables the library to remain valid in the system. The fact that remote server can be used to generate useful information was portrayed by Claire and Bremmer (2004) when they observe that the open University Library obtains quantitative usage server from the proxy server to all remote resources. Apart from the ease of operation, there is the economy on the labour saved in data collection. Gathering of statistics on use of databases, monographs, electronic and print journals have been reported by Cheng, Bischof and Nathanson (2002). It is possible to gather information on the behaviour of users when they search for materials. The system is also able to record their failures and successes. Such information will enable information officers' record successes and failures. Millian and Kyriaki-Manessi (2007) design an on-line user study which captured data about the general behavior of customers and their satisfaction as they navigate the catalogue. On the same level, Adams and Noel (2008) while speaking in favour of library automation and its effect on access to circulation pointed out that the data collected are dependent on how the system has been set to operate. In which case, any desired information could be realized from the system.

Circulations of e-resources enables the library realize how crucial the selected items had been in resource management. Libraries are faced with a load of e-resources. Selection of the ones to acquire is also a problem. The record of rate of use of each resource is a good measure of the level of usefulness of the particular item. Kemp (2004) emphasizes that evaluation of the e-resources is necessary for the purpose of selection and canceling e-resources. It was also noted that the statistical measure with which libraries can study the vendor-generated and library-generated statistics are still in the process of

being defined, measured and reported in consistent and comparable ways. Presently, there is discrepancy between vendor-generated and library-generated statistics. For instance, this author reported that each time a patron clicks a link to an electronic resource; the server log generates a log entry and the Internet Protocol (IP) address of the base library. Davis (2002) believes that comparing print usage and e-resources may not be possible because of these discrepancies. Stamper and Jaguszewski (2003) confirmed that there is difference between local usage statistics and vendor-supplied usage statistics. This survey is to assess the availability and use of statistics in Nigerian university libraries, and also to establish how these statistics have been used in the past in the libraries surveyed. Specifically, this study is conducted to assess the availability and usefulness of statistics generated in Nigerian University libraries.

METHOD

The questionnaire method was used in this survey. Attempt was made at forwarding online questionnaires to some members of the Nigerian Library Association whose e-mail addresses were captured at one of the annual conferences of Nigerian Library Association. The response to this method was not encouraging. Hence, alternative method of posting the questionnaire was adopted. This method was more effective since responses were received from all the six geopolitical zones in Nigeria. The sample size consists of twenty-two questionnaires mailed to some University Librarians in these Zones. Enclosed with the questionnaires were self-addressed envelopes which made it easy for the respondents to forward their responses to the researchers. Eighteen of the positive responses (three from each zone), were used for this analysis. Existing literature was consulted to extract ideas that were employed to construct the questionnaire. Information requested in the questionnaire dwelt on frequency of data collection, and records of material use.

RESULT AND DISCUSSION

With the failure of attempt to collect information through personal e-mail, the postal system was successfully used. As stated earlier, three replies received from each of the Universities in the six geopolitical zones of the nation were analyzed. On the whole, replies were received from eighteen universities. About 82% success rate was recorded. The method of analysis was by simple percentage. On the frequency of data collection, all the institutions collected data daily. They were able to record monthly average. None of the libraries took record of the number of people that entered the library as users and non-users. However, they all kept record of number of registered users. On the method these libraries adopted when collecting information on daily activity, library staff that were responsible for data collection moved round at intervals to take statistics. On rate of library use, staff takes record of users who were seated at the particular time the counts were taken. The numbers of books consulted, returned, renewed and re-shelved daily were recorded. This gave information on the rate of book use. There is variation in opening hours. From table 1, 55.56% of the libraries remain open for 14 hours from Monday – Friday. On

Saturday, 16.67% of the libraries open for 12 hours, while 44.44% remain open for 10 hours. Sunday opening hour shows that 11.11% of the libraries open for 10 hours, 22.22% open for only 4 hours. However, 44.47% do not open at all on Sunday. The libraries have different time table for examination period. All the libraries reduce the period they remain open during holidays. Current resources elevate the quality of institutional provision. In this era of information explosion, available current information embedded in back files are useful for retrospective searches. The ability of the library to provide up to date information to their client is dependent on the frequency at which they are able to keep in touch with recent developments. Statistical indicators enable institutions to deal with various challenges.

Institutions were asked the frequency at which they review some of their statistical indicators. Table 2 shows that 72.22% of the institutions review their operational expenditures annually while the remaining 27.78% do so quarterly. Review of electronic material expenditure is never carried out in 22.22% of the institutions. Print materials expenditure is reviewed annually in 50.00% of the institutions. Internet terminal subscription is done in most cases annually. Databases are never reviewed in majority of the institutions (61.11%). In-house electronic material use is rarely reviewed as well (72.23%). However electronic material use is never reviewed in 61.12% of the institutions.

The inter library loan scheme is gradually phasing out. The inter library loan statistics shows that it is no longer popular with libraries. The use of UNESCO Coupons to order for photocopies has gone into oblivion. All libraries have different colours of library identity cards for different user groups including staff. Students are also split into undergraduate graduate and part-time users' categories. The non- bona fide members of the institutions (such those on remedial courses and researchers from other institutions) are identified as temporary users and issued identity card accordingly.

Automation of the circulation system is ongoing and has not fully been implemented in all libraries surveyed. This implies that in all cases manual recording of circulation statistics have not been abandoned completely. While some institutions effectively considered computerization since 1995, there are other institutions that have just started in 2007. The first generation Universities are among early starters while those recently established have just started computerizing their systems. Almost all the institutions hold their current information on both print and electronic resources. Most of the institutions have acquired electronic journals but not all are used heavily. This is because not all users have access to them due to problems of connectivity.

On how users learn to have access to electronic resources provided in the library, the library staff put them through. The lecture on use of library and its associated practical sessions have been found quite handy. Subsequently, users make contact with the systems personally through the library computers. Local cybercafés and personal work stations have also been helpful. No institution was able to give actual figure of their electronic user population. This is same with the number of accessible e-books and full text e-journals. The users confirmed that the availability of institutions databases have enabled them access the materials from various locations.

Finally information generated in libraries as operations are carried out is for use in improving services provided to the users. These institutions were asked to explain areas where statistical information has been found useful in their institutions. The information they provided showed that all sections of the library are involved in the use of these information. There are requests made from outside the university communities where the information is needed. Information requested for by the sponsor of the institutions or donors to the institution are met with these data generated internally. When writing monthly and annual reports these pieces of information are found to be indispensable. When requests are made for staff increase or adjustment, these data justify the request. Also, decision to acquire or discard resources is backed up with these statistics.

Table 1: Operating hours of the libraries surveyed

| Monday – Friday | Number of Institutions | Percentage |
|------------------------|-------------------------------|-------------------|
| 14 Hours | 10 | 55.56 |
| 13 Hours | 3 | 16.67 |
| 10 Hours | 3 | 16.67 |
| 8 Hours | 2 | 11.10 |
| Saturday | | |
| 12 Hours | 3 | 16.67 |
| 10 Hours | 8 | 44.44 |
| 8 Hours | 3 | 16.67 |
| 5 Hours | 2 | 11.11 |
| 4 Hours | 2 | 11.11 |
| Sunday | | |
| 10 Hours | 2 | 11.11 |
| 8 Hours | 2 | 11.11 |
| 5 Hours | 2 | 11.11 |
| 4 Hours | 4 | 22.22 |
| Nil | 8 | 44.44 |

Table 2: Frequency of Review of Statistical Indicators

| | Annually | Quarterly | Bi- Annually | Never |
|---------------------------------|----------|-----------|--------------|--------|
| Operation Expenditure | 72.22% | 27.78% | - | - |
| | 13 | 5 | - | - |
| Electronic Material Expenditure | 38.89% | 33.34% | 5.50% | 22.22% |
| | 7 | 6 | 1 | 4 |
| Print Material Expenditure | 50.00% | 33.34% | 16.66% | - |
| | 9 | 6 | 3 | - |
| Database | 38.89% | - | - | 61.11% |
| | 7 | - | - | 11 |
| Internet Terminal Subscription | 55.55% | 33.34% | 11.11% | - |
| | 10 | 6 | 2 | - |
| In House – Material Use | 27.77% | - | - | 72.23% |
| | 5 | - | - | 13 |
| Electronic Material Use | 38.88% | - | - | 61.12% |
| | 7 | - | - | 11 |

CONCLUSION

Generated data are quite indispensable in the operations of a library. It is the backbone for strategic planning. For successful management of the affairs of a library, evidence of what is done and what is expected to be achieved are vital to future planning. The information leads to eloquent decision that propels the institutions to achieve desired heights.

Libraries are service-oriented divisions and since the need of its users are dynamic and constantly changing, the method of service provision has to change in line with the development. The library needs to be alert to know when there is increase in the demand on the system. This is also true when there is a decline in the use of the system. In-house collection of circulation data are expected to rise all the time as the user population increases. It is also noticed that due to the presence of internet facilities, library record on inter-library loan was not significant in the survey.

Identification of user group has the advantage of checking resources used and in making future projection. It provides a healthy interaction between library users and staff and eliminates over stretching the library facilities. It was not possible to collect actual figure of electronic use population. However, it is possible to have figure of electronic use because of the use of information generated by the electronic system. It is noted that all the figures given are always progressive from time to time. This shows expectation of progress in future. Data generating is essential for the progress of the library operations. There is no limit to increase in information available and libraries are expected to be prepared to accommodate what so ever increase that comes along by actively generating and making use of collected data. Use of electronic resources has eased the work involved in data compilation and analysis. All libraries are changing to electronic records which will make the work of data generating easier.

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