



Thesis

By

KENNETH IVO

NGOZI NWALO

**UNIVERSITY
OF IBADAN**

**Measures of library effectiveness in
Nigerian polytechnic libraries with
emphasis on user satisfaction**

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**MEASURES OF LIBRARY EFFECTIVENESS IN NIGERIAN
POLYTECHNIC LIBRARIES WITH EMPHASIS
ON USER SATISFACTION**



BY

KENNETH IVO NGOZI NWALO
B.A. (Hons) English (Lagos), M.L.S. (Ibadan)

A thesis in the Department of LIBRARY, ARCHIVAL AND
INFORMATION STUDIES Submitted to the Faculty of Education in
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ABSTRACT

The research objective is to explore how to improve the effectiveness of Nigerian polytechnic libraries with special emphasis on harnessing the strengths of the library effectiveness variables of interest - operational climate, library collections, tangible services and qualitative services. In furtherance of this, the study has measured the effectiveness of polytechnic libraries in Nigeria and ascertained the contribution of each of the four highlighted output variables to this effectiveness. User satisfaction was the measure of library effectiveness in the study.

In conducting this investigation, the survey research design was adopted with the questionnaire as the main instrument of data collection. There were three questionnaires validated by experts and pre-tests. The study population consists of 14 polytechnic libraries: the heads of the libraries, all their 97 professional and para-professional staff and 8,233 members of the user communities. All the library personnel and 89.3% of the users validly completed and returned their questionnaires. The research data was analysed mainly by t-test, step-wise multiple regression analysis and correlation analysis. All tests were conducted at 0.05 level of significance.

The research findings show that:

- I. Nigerian polytechnic libraries' are ineffective in meeting the information needs of the polytechnic community.
- II. There is no significant difference between the performance of the polytechnic libraries that are adequately staffed and those that are inadequately staffed.
- III. User satisfaction as a measure of library effectiveness has revealed a highly

significant positive relationship between Nigerian polytechnic library effectiveness and four performance indices - operational climate, library collection, tangible services and qualitative services. These variables are in order of their importance to library effectiveness as ranked in the research;

- IV. Most staff and users of Nigerian polytechnic libraries are favourably disposed to the user approach to measurement of library effectiveness.
- V. Measurements of effectiveness of polytechnic libraries in Nigeria by the opinion of the library staff on the one hand, and the users, on the other, based on the same parameters yielded significantly different results: the library staff have the tendency to overrate the effectiveness of the libraries.
- VI. Nigerian polytechnic libraries, though highly utilised, are grossly neglected by their parent institutions in resource allocation.

The research has provided useful information on the management of polytechnic libraries in Nigeria. By identifying and establishing the importance of each performance variable, this study has provided a frame-work for policy-making and resource sharing for greater library effectiveness.

The study recommends that commensurate attention be given to the four library effectiveness variables in order of their hierarchy of importance. It also calls for periodic measurement of the polytechnic libraries' effectiveness by user approach. The need to take urgent steps to rescue the polytechnic libraries from obsolescence and obliteration through greater resource allocation and better management in the overall interest of the polytechnics' missions was also highlighted.

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DEDICATION

This work is dedicated to all Nigerian Polytechnic library personnel working tirelessly to sustain user services with meagre resources.

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CERTIFICATION

I certify that this work was carried out by Mr. Kenneth Ivo Ngozi Nwalo in the Department of Library, Archival and Information Studies, University of Ibadan, Ibadan, Nigeria.

M. I. Atinmo
Supervisor

June 12, 1997
Date

Dr. Morayo I. Atinmo
B.A.(Hons)(Ibadan);
MLS (Syracuse), Ph.D. (Ibadan).
Senior Lecturer, Department of Library,
Archival and Information Studies,
University of Ibadan, Nigeria.

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LIST OF ABBREVIATIONS

i. Names of Polytechnic Libraries Studied

| | |
|-------------|---|
| APL | Federal Polytechnic Auchi Library |
| FPBL | Federal Polytechnic Bida Library |
| FPIL | Federal Polytechnic Idah Library |
| FPML | Federal Polytechnic Mubi Library |
| FPNL | Federal Polytechnic Nasarawa Library |
| FPOL | Federal Polytechnic Nekede-Owerri Library |
| IKL | Isa Kaita Library, Kaduna Polytechnic |
| KPL | Katsina Polytechnic Library |
| KSPL | Kano State Polytechnic Library |
| MWL | Mohammed Wabi Library, Federal Polytechnic, Bauchi |
| PCL | The Polytechnic Calabar Library |
| LSPL | Lagos State Polytechnic Library |
| SAML | Salawu Abiola Memorial Library, Ogun State Polytechnic, Abeokuta |

ii. Other Abbreviations

| | |
|---------------|---|
| ACRL | Association of College and Research Libraries |
| COPLIN | Committee of Polytechnic Librarians in Nigeria |
| CLNU | Committee of Librarians of Nigerian Universities |

| | |
|---------------|---|
| FESTAC | First Black and African Festival of Arts and Culture |
| GCE | General Certificate of Education |
| HND | Higher National Diploma |
| LC | Library Collection |
| LPRS | Library Personnel Rating Scale |
| NBTE | National Board for Technical Education |
| NCE | National Certificate of Education |
| NLA | Nigerian Library Association |
| OC | Operational Climate |
| QS | Qualitative Services |
| SP | Strategic Management |
| TS | Tangible Services |
| TQM | Total Quality Management |
| UK | United Kingdom |
| USA | United States of America |

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Institutions for vocational and technical education, according to Oni (1985) evolved in Nigeria out of conscious effort by the successive federal, regional and state governments to develop indigenous manpower, especially middle-level manpower. The problem of manpower development has remained a difficult one throughout the history of educational development in Nigeria. This problem was first created by the British colonial government that did little to promote technical education. Abolade (1987) recaptures the issue thus:

At the beginning of this century and throughout the first half of it, the philosophy of education in Nigeria was purely based on clerical needs. The primary intention was to produce a few semi-intellectuals who would be able to carry out the administrative errands of the colonial government.

The educational system in the colonial Nigeria did satisfy the needs of the time but certainly not the manpower needs of the post independence era.

The present day Nigeria needs young men and women who are skilled to work in the small scale industries that are emerging out of government's import-substitution programme. No doubt, the education and training that will produce indigenous technicians for the industries will come mainly from vocational-technical institutions

that are well equipped and well staffed (Abolade (1987)).

For economic and technological development of any nation, functional education, especially in the area of vocational-technical education, is a necessity. According to Abolade (1987) the much acclaimed successes of the developed nations arose from their wisdom in investing heavily in vocational and technical education. Japan, for example, is a typical example of a nation that had foresight in investing in vocational and technical education from the 1930s. At present, Nigeria, like most other developing (and even the developed) nations, consumes industrial products from Japan, which is at the forefront of the world economy.

Akanbi (1987) has extensively discussed the evolution of the concept of technological education in Nigeria. After Nigeria's independence in 1960, there were concerns for economic independence as Britain still dominated the production and distribution organizations in Nigeria at the time.

Initially, capital shortage was identified as a hinderance to the effective development of Nigeria's abundant national resources. But after the Nigerian Civil War in 1970, capital for the governments was given a big boost by favourable developments in the oil industry. According to Akanbi (1987):

The experience of this economic phenomenon led Nigeria's economic-policy-makers to believe by the 1970s, that capital was no more the hinderance to Nigeria's economic growth. The bottleneck, therefore, had to be traced to other factors... What Professor E.J. Kolde termed "capital absorptive capacity" or the country's ability to absorb the capital available.

The creation of capital absorptive capacity can only be achieved through technology and managerial proficiency, both of which Nigeria had to import.

Story (1979) reports that to meet the perceived middle-level manpower needs, the Nigerian government, at a point, had to draft the youth in large numbers to community colleges and technical institutions overseas. It was reported that in the 1977-'78 academic year, at least, 2,000 Nigerian students were enrolled in American Colleges for the Middle-Level Manpower project.

Apparently in a hurry to acquire the much needed technological manpower, the Nigerian leadership mobilised the school-leavers and sent them overseas for technical training. The objective of the project was "acquiring the technical know-how necessary to build Nigeria into a technically advanced and self-reliant nation" Story (1979).

With the passage of time it dawned on Nigeria that it is not feasible to become self-reliant either by relying on the educational capability of others or by "importing technology". On the long run, Nigeria discovered that she needed to develop its own educational capability and locally appropriate technology. This, according to a popular text (1967) can only be done through locally-based vocational and technical education, research and development, and on-the-job training.

Technological knowledge and skill are not acquired only in universities. Polytechnics are veritable partners in finding the appropriate technology for Nigeria.

Incidentally, technological education has received serious attention from many Nigerians in recent times Ezekwe (1979), Adekola (1979) and Oni (1985) . The Federal Government also demonstrated political will to encourage middle-level manpower development by establishing the National Board for Technical Education (NBTE). The functions of the Board, as stipulated in the decree setting it up include:

1. To advise the Federal Government on, and to co-ordinate all aspects of technical and vocational education falling outside the universities and to make recommendations on the national policy necessary for the full development of technical and vocational education for the training of technicians, craftsmen (and women) and other middle level and skilled manpower;
2. To determine, after consultation with the National Manpower Board, the Industrial Training Fund and such other bodies as it considers appropriate, the skilled and middle-level manpower needs of the country in the industrial, commercial and other relevant plans for the balanced and coordinated development of polytechnics and colleges of technology... (NBTE 1979).

It is the desire to develop appropriate technology that can adequately take care of Nigeria's environmental, socio-cultural peculiarities and economic developmental needs that has prompted the establishment of Universities of Technology in Nigeria in recent times. This desire has also stimulated the an unparalleled explosion in the number of polytechnics and colleges of technology in Nigeria. The country has witnessed a momentous rise in the number of these institutions from one before independence to four by 1965, twenty-seven by 1983 and forty-three by 1993 (NBTE 1984). The number is also growing by the day as the newly created states place premium on

establishing tertiary institutions, including polytechnics and colleges of technology. Private individuals have also started showing interest in the establishment of polytechnics as exemplified by the establishment of the Lagos City Polytechnic, Ikeja in 1995.

It is evident from the foregoing that the pursuit of vocational - technical education in Nigeria is not new. Technical and vocational education and training are foundations for technological take-off by any country, and this has already been illustrated. Technical education facilitates the acquisition of practical and technical know-how and makes the transfer of technology meaningful and beneficial. Odunwaije (1979) avers that " it is in

recognition of this that the Federal Government has placed high priority on the education and production of all kinds and levels of technical manpower..."

He further stated that Nigeria's total number of intermediate level manpower in large, medium and small size establishments at the beginning of the Third National Development Plan period in 1975 was about 332,500. The additional number needed in the country between 1975 and 1980 was estimated to be 139,500. This was mostly at technician level in the engineering and allied fields. It is therefore not surprising that government has expended enormous resources in establishing new institutions for vocational and technical education and training in Nigeria and expanding the existing ones since the mid-70s.

1.2 The Debut of Polytechnics in Nigeria

Yaba College of Technology, established in 1948 is Nigeria's first college of technology. Aladejana (1975) noted that polytechnics "are now making their second appearance on the Nigerian education scene". Colleges of Arts, Science and Technology had featured before, from 1952 till 1962, when the three colleges in Zaria, Enugu and Ibadan became the nuclei of Ahmadu Bello University; University of Nigeria, Nsukka campus; and University of Ife, Ibadan campus.

Within their respective ten years of existence the institutions variously offered professional courses up to intermediate level in architecture, pharmacy, accountancy, secretarial studies, surveying, estate management, administration and education. In addition, they prepared students for direct entry into the University of Ibadan, or to universities overseas through the General Certificate of Education at the advanced level.

Significantly, Aladejana (1975) reveals that:

Each of the three branches of the Nigerian College of Arts, Science and Technology had a library building designed specifically for the purpose. There were qualified librarians in-charge and the book holdings were one of the best Nigeria could boast of then. Apart from set texts for the students, there were materials for general reading and reference information. The stock formed the initial holdings for the universities that replaced them.

Unfortunately, the same favourable comment cannot be made of Polytechnic libraries in Nigeria at present.

At the commencement of this research in 1990, there were a total of 27 polytechnics and colleges of technology approved by the (NBTE) to offer the National Diploma (ND), the Higher National Diploma (HND) programmes or both. It is on these institutions that the research is focused. However, an updated list of accredited polytechnics, their ownership status, postal addresses and date of establishment is provided in the work as Appendix VII.

1.3 Objectives of Nigerian Polytechnics

Polytechnics and colleges of technology have been generally set up to provide the middle-level manpower needs of the country, especially in the professions. The NBTE (1979) and Aladejana (1975) indicate that the polytechnics offer courses at the Certificate, National Diploma (ND), and Higher National Diploma (HND) levels in engineering, accountancy, surveying, (and of late), library science, etc.

The NBTE (1984) has also outlined the objectives of polytechnics and colleges of technology as:

- (a) To provide full-time and part-time course and training in Technology, Applied Sciences, Commerce, Management, Natural and Agricultural Production and Distribution;
- (b) To provide appropriate opportunities for research and development in Technology and Applied Sciences so that existing technology may be improved or new inventions made;
- (c) To undertake production of goods and services to generate for the country the capability for technological reliance.

The instruments establishing these institutions clearly spell out the purpose for which the colleges are established and the functions they are expected to perform. On the whole, all polytechnics and colleges of technology in Nigeria have virtually the same objectives. For example, the edict establishing the Institute of Management and Technology (IMT), Enugu (1977) provides in Section 3(1) that:

...The Institute of Management and Technology... shall be an institution for teaching, training, and research in management and applied technology of a standard above that obtainable in a secondary school.

Similarly, the Polytechnic Ibadan Staff Handbook (1977) reveals that the institution was established in 1971 to produce manpower, particularly in the field of technology, who would not only be technically knowledgeable, but who will be capable of a degree of supervisory management in commerce, industry and business. The polytechnic's functions according to the publication are to be carried out in a great variety of ways including:

the provision of part-time (day or evening) as well as full-time courses, of special training courses, of work, in the development of techniques, of conferences of study groups, or of any other activities that may promote the objectives. There should at all times be the closest consultation with industry as to the best way to proceed to meet their needs.

From all evidence, Nigerian polytechnics and colleges of technology are charged with the responsibility for teaching and research for the production of middle-level

manpower in the professions and to embark on manpower training and retraining for the benefit of industries and other business and social organizations in the area where they are located. Their academic programmes lead to the award of Certificates, National Diploma (ND), Higher National (HND) and National Certificate in Education (NCE)-vocational and technical in a good number of cases. To assist students meet up with the admission requirements, the institutions also offer remedial studies leading to the SSC examinations conducted by the West African Examinations Council (WAEC). The orientation and objectives of Nigerian polytechnics appear to be drawn from those in the United Kingdom (Nigeria's erstwhile colonial masters). Cowley (1975) reveals that, faced with the problem of expanding higher education, the UK government in the mid-sixties noted the advanced work being carried out in a large number of regional and area colleges, and decided that the future of these institutions did not lie in their development as universities but as higher education establishments having their own distinctive character within the local education sector. The intention was to create a 'separate but equal' local authority sector of higher education bearing a strong interest in vocationally oriented interdisciplinary courses.

Cowley (1975) further reveals that, the UK polytechnic is a comprehensive institution having a combination of full-time, part-time and sandwich students. However, Revill (1981) reports that the polytechnics in the United Kingdom, unlike their Nigerian counterparts, cover a wide range of courses both in terms of subject-

matter and levels, GCE 'O' Level to Ordinary National Certificate (ONC) to Postgraduate degrees and research. As would be expected, polytechnic libraries in the UK will have the additional responsibility of providing materials for Post-graduate research.

In the course of data collection for this research, the researcher learnt during his visit to Kaduna Polytechnic that the various academic departments had been directed to prepare and submit to the academic registry their detailed programmes for post-graduate studies. This is a welcome development for Nigerian polytechnics and colleges of technology. One only hopes that any of the institutions introducing post-graduate research programmes would ensure that adequate facilities are put in place. Improvement in the quantity and quality of the polytechnics' library resources for example, is a *sine qua non*.

1.4 Objectives of Nigerian Polytechnic Libraries

The objectives of the polytechnic library, avers Ita (1980) are inevitably tied up with the objectives of its parent institution itself since the library is but a unit of the polytechnic. The library of a polytechnic, according to Ajibero (1992) is an indispensable link that ties all educational components together for better operation. He posits that "The library that provides this scarce commodity is regarded as the 'heart' or 'life-line' of the parent institution. On the whole, the polytechnic or college of

technology library has the primary objective of providing literature support for all the academic, research and extension programmes of the parent institution.

However, Lyle (1961) has argued that the primary purpose of a polytechnic or college of technology library should not only be to provide books, journals, and other instructional materials in support of the academic programme of the parent institution, but also to encourage the formation of a lifelong habit of reading much and reading well. A cursory look at the objectives of a few of the polytechnic and college libraries would reveal that though, couched in different languages, their central objectives are the same.

The Anambra State Polytechnic, Oko (1991), for example, stipulated that its library was set up to serve the following objectives:

1. To provide materials-books, periodicals, audio-visual materials, etc.-to support the teaching-learning programmes of the polytechnic;
2. To provide materials and active support for all research efforts within the polytechnic;
3. To provide books and periodicals of a general nature to encourage reading for leisure and recreation...;
4. To provide audio-visual and other electronic teaching aids to enhance individual learning and audio-visual education and to provide entertainment;
5. To organize workshops, conferences, seminars and lectures that will enhance operational efficiency of library and other polytechnic staff.

Similarly, the Federal Polytechnic, Bauchi (1990) states that its library is the focal

point of all academic activities in the institution. The objectives of the library include the following:

1. To acquire, organise, store and make available relevant books, illustrations, etc; records, cassettes, tapes, slides, films, filmstrips and micro-films including micro-film and microcards;
2. To develop as a learning resource centre, and to provide equipment necessary for use of the audio-visual materials, to demonstrate and encourage the use of such materials;
3. To provide space for readers to use all library materials and also to use their own materials;
4. To promote the use of library materials at all stages within and in addition to the education programmes;
5. To assist in the design of programmes by providing bibliographical information, and to ensure that resources exist to meet the programmes so designed;
6. To act as an information and reference centre for;
 - a) The entire Polytechnic Community
 - b) Ultimately, Industry and Commerce, Schools and other institutions within and outside the locality that may require the specialist collection of the library and...;
7. To collect, organise, and store all materials appropriate for the Polytechnic archives.

The foregoing objectives are not significantly different from those of the Federal Polytechnic Oko already stated. Instead, one would notice that the Federal Polytechnic Bauchi library has tended to be more elaborate in stating its objectives.

All the objectives of the libraries of the two institutions stated thus far re-echo in the objectives of the Lagos State Polytechnic Library (1980). Emphases, however, were given to the provision of reference information service to the user community and acting as a link with the world of books and libraries outside the polytechnic's locality. It is also committed to the provision of user education. The Polytechnic Calabar (1984) indicates that its library provides the bibliographical apparatus-books, journals, newspapers, manuscripts, films, recordings and other documents necessary for the attainment of the educational objectives of the Polytechnic.

Ita (1980) posits that the Nigerian polytechnic or college of technology library, like other academic libraries world-wide, is the nerve-centre of the teaching, learning and research activities of the parent institution. It is a major academic resource. For many students, the library represents their laboratory. To effectively perform its roles, the library deserves adequate funding and all the support the parent institution can give, and must be accorded due recognition by the chief executive.

For more detailed information on each of the polytechnic libraries in the survey sample, please see appendix VI.

1.5. Theoretical Concepts

No matter the amount of financial, human and material resources available (or not available) to the library, no matter the variety and magnitude of its services (or the

absence of them), the primary concern of the user is that his/her information needs be adequately and promptly met. No matter how pathetic, excuses to the user for unmet need cannot solve his/her problem. Many scholars, including Ene (1978), have thus identified the meeting of user demands as the ultimate measure of library effectiveness. Lancaster (1977), an authority in library evaluation, has stated that "the public service of a library must be measured ultimately in terms of degree of user satisfaction."

No library can be sure that it is adequately meeting user demands unless it embarks on periodic measurement of its performance. Furthermore, a management text (1963) has divided management functions into four essential elements-planning, motivation, coordination and control. The successful exercise of all these functions in the library would make the librarians to be seen as competent. Conversely, argues Webber (1972) where librarians have failed to show responsibility in these matters, the resulting services have been manifestly deficient. Given the foregoing, it follows that control is one of the cardinal elements of management function. Control, as a management function, is exercised with the aid of performance measurement or evaluation.

Evaluation has been a subject of great concern to many, not only in libraries but also industrial organisations. Philip Morse did a pioneering work on 'Control' in the 1950s and his 1968 book, based in part on that work, called attention to the importance of measuring the effectiveness of library services. Morse (1968) developed

mathematical models and collected experimental data related to the feedback control of certain aspects of library operations. In his words:

What engineers call feedback and control are essential to the stability and organized functioning of any system, whether machine, living organism, or complex industrial process. When things go wrong, as is inevitable, corrective action must be taken. A system must be so designed that any discrepancy between proper and faulty performance generates an error signal that can then be used to alter the operation of the system...so it must be with libraries.

Swanson (1979) regrets that in libraries the mechanisms of feedback and control are seldom explicit, systematic, and well understood. Their significance, particularly for the management and planning of libraries and for educational programmes in library management, does not seem to be widely appreciated. There are many ramifications to evaluation of library performance. One must therefore not see it only in terms of internal efficiency of the library system.

Lancaster (1982) has tried to survey the divergent views on evaluation and to synthesise them. Some claim that evaluation is a branch of research-the application of "the scientific method" to determine, for example, how well a programme performs. Others stress its role in decision-making: that evaluation gathers data needed to determine which of several alternative strategies appears most likely to achieve a desired result. Finally, some writers look upon evaluation as an essential component of management; in particular, the results of an evaluation may help the manager to

allocate resources more effectively. In the words of Lancaster (1982):

These various points are quite compatible. Moreover, they all tend to emphasize the practical nature of evaluation. An evaluation is performed not as an intellectual exercise but to gather data useful in problem-solving or decision-making activities.

A popular text in library administration (1968) sounded rather doctrinal in its comment on evaluation as an administrative process when it posited that:

The process of administration is no more effective than the capacity of the organization for making assessments about whether or not it is achieving its sought-for-ends. Yet the success or failure of performance is perhaps the most unattainable measure to achieve in reviewing the performance of organizations... Yet without the attempt to evaluate achievement, only the crudest yardsticks of program effectiveness in libraries or in any other kind of organization are possible. Under these terms what is a "good" or "bad" library is the personal judgement of whoever exercises such judgement based upon the criteria which he alone has fashioned since the organization will not have evolved such criteria as a basis for such assessment. While the task of measuring organizational results is not susceptible of simple measurement, it is so fundamental to rational organizational procedures that it must be energetically pursued in any agency which strives to enhance the intelligent attainment or organizational goals.

Certainly, every organization with stated objectives needs from time to time to find out whether or not it is working towards the achievement of organizational goals and to what extent. This is a difficult exercise which must be performed based on a number of carefully worked out criteria for it to serve any useful purpose.

Wasserman (1968) posits that measurement of performance is undertaken primarily, perhaps, because there is no other equally rational criterion for evaluating

performance. It is said to be "like a blind man, in a dark room, groping around for a black cat that isn't there." The simile highlights the difficulty in performance measurement as indeed Wasserman himself confesses: "It's true-this measurement issue is difficult, it is elusive, it is frustrating and nobody has all the answers."

Wasserman further argues that difficulty in performance measurement arises primarily because there appears not to be quantitative measures of output in which librarians have great confidence.

"The tendency has been to evaluate inputs (such as funding, personnel, and collection size and growth) with the assumption that they will predict the adequacy of the outputs".

This weakness, according to Marchant (1976), has led to overemphasis on internal efficiency and a lack of concern for the place of the library within its environment. Ford (1989) avers that there is more than one kind of measure for library performance:

The most difficult are those which deal with abstract concepts in the library's objectives. Many people measure only those activities which are easy to measure, but the results of this can be misleading. Libraries need to have a range of measures to illustrate the wide range of activities which they undertake.

Academic library evaluation occurs in three patterns:

1. As part of an accreditation procedure;
2. As a survey by an outside consultant; and

3. As an in-house self-evaluation.

These processes use a variety of standards and formulas as guides. The findings derived from their use, however, are usually considered within a subjective context that emphasises the objectives of the institution. Understandably, many have embarked on the measurement of the easily quantifiable library provisions and services, such as book stock and volume of circulation, because it is better to measure aspects of library performance than to have no measures at all. This approach appears somewhat escapist. Nevertheless, it is better than the approach adopted in the American Library Association's (ALA's) *Handbook on Statistics* as reported by Mason (1976). Library services that might be both measurable and worth measuring have been omitted from the published compilations because "qualitative measurement of services in different libraries is virtually impossible and quantitative measurements by themselves are not very meaningful."

Kantor (1981) acknowledges that performance measurement of libraries is fraught with difficulties but expresses a rather optimistic view on the matter when he posits that:

...for libraries, as for other non-profit enterprises, the measurement, documentation and evaluation of productivity is a central problem. The flow of funds into labour and capital within a library can be traced with the same accounting detail found in the commercial and industrial sectors... Measurement and documentation of these benefits provide a foundation for evaluation, justification, and regulation of library expenses.

If the librarian cannot justify the library expenses before the sponsoring body through evaluation of performance, not much fund can be approved for future library operations. Evaluation is therefore very necessary in persuading the sponsors to allocate adequate funds for library operations. No wonder, the functions of budgets are said by King and Bryant (1971) to include planning and evaluation of performance.

In a study by Lundberg (1981), many of the respondents indicated a special interest in the results of the performance measurement question in the library, since they generally agreed that good service is hard to measure objectively. This shows that even the users do not believe that an objective assessment of how well they are served is practicable.

The overwhelming difficulties of library performance measurement have also been of great concern to managers of company libraries. Wasserman (1968), for instance, posits that it is most difficult to measure and assess the company library because it produces no tangible, clear cut identifiable product. Instead, its traffic is in ideas, absolutely the most nebulous of all the components that comprise a company's final product. Thus, Wasserman asks:

"From a purely economic standpoint, how does one calculate the "value-added" of so elusive, so intangible a raw material as facts that shape decisions and ideas that generate ultimate action?"

However, Wasserman acknowledges that the problem is not unique with libraries. It

is also faced by the public relations department, by advertising, by research and by every other functional facility in industry which cannot demonstrate its end product in concrete and tangible terms. In spite of the measurement bottlenecks, Wasserman (1968) points to the danger of failure to measure library performance as he warns that:

Without demonstrable, visible proof of its attainment using an acceptable managerial-type yardstick, the library becomes an inevitable target of cost-conscious managements which wield that frightening instrument of internal destruction-the budget-cutting scapel.

In the face of competitions among people of different professions in organizations and the society and heightened scepticism, libraries have to stoutly defend their place in society. Kantor (1981) warns that "Unless we can find the instrument of measurement (of library performance) our efforts are liable to be criticized or even dismissed as intangible and unnecessary."

Similarly, Kantor states that measurement and documentation of library benefits to the institutions which support it provide a foundation for evaluation, justification and regulation of library expenses. "Without measurement and documentation", Kantor warns, "the library is at the mercy of institutional good-will-a quality which vanishes quite as fast as the supply of disposable funds." Every effort, therefore, need be made to work out a system of arriving at as objectively as possible the quantitative and qualitative output of libraries.

According to Line (1994), the modern organization is emphasising Total Quality Management (TQM) as a technique for Strategic Planning (SP). TQM, which aims at

providing a user driven service that is timely, appropriate and free of error involves a set of techniques for the analysis of operations and requires a change of culture.

Moore (1994) has presented a brief history of the quality movement from the early emphasis on inspection to the emergence of a set of concepts and approaches which are often collectively referred to as total quality management (TQM). He notes the need to emphasise the determination of customer needs and the putting into place of systems for measuring customer satisfaction. These two particular issues are of obvious relevance to those charged with the provision of library and information services, including the management of polytechnic libraries in Nigeria.

1.6. Statement of The Problem

The main problem addressed by this research is the ineffectiveness of polytechnic libraries in Nigeria. This problem was first experienced by the researcher when he was a librarian at the Federal Polytechnic Oko from 1986-1990. Official engagements at this period offered the opportunity to visit many of the polytechnic libraries in Nigeria. Informal interviews with the librarians and library officers in the polytechnics visited revealed that the libraries were equally ineffective due to problems similar to those experienced at the Federal Polytechnic, Oko.

Furthermore, personal observation during the visits to Nigerian polytechnic libraries showed that the libraries are inadequately provided for in terms of physical

facilities, staffing, collection and library furniture. These shortfalls in library provisions invariably reduce the effectiveness of the libraries in meeting their user needs. Above all, the literature of librarianship in Nigeria evidently shows that Nigeria polytechnic libraries are ineffective due to one kind of problem or another. The impression one gets from the literature is that polytechnic libraries in Nigeria do not get the deserved support by their parent institutions.

It is hoped that one important way of getting the needed financial and moral support of their parent institutions is for the libraries to embark on periodic performance assessment by user approach. Once performance can be objectively measured and documented, the Polytechnic Librarians will, among others, have in their hands, a portent tool for persuading the management of their parent institutions to strongly support the library programme.

So far, librarians have no confidence in a single measure of library performance, especially those relating to abstract services and concepts like user education and enhancement of library use by provision of a good catalogue. According to Kantor (1981), one of the problems of evaluating library services is that, frequently, the thing people would like to quantify cannot be measured directly. That a reference transaction has taken place, for example, tells nothing about the degree of difficulty of the transaction and, correspondingly, value of the service rendered to the user. Is he satisfied? Is he going away grudgingly? Would he have preferred a better analysis of

the information volunteered at the reference desk?

In spite of these measurement difficulties, it is essential to have uniform criteria for measuring performance of polytechnic libraries in Nigeria so that, in comparing two library systems, one could identify the one that performs better. The NBTE, for instance, carries out resource inspection in the polytechnics and colleges of technology for the purpose of accreditation. How is the Board sure that a polytechnic library adjudged the best in terms of stock, number of seats for readers and number of serving professional and para-professional personnel will actually satisfy its users most?

Annually, polytechnic libraries in Nigeria like all other libraries, are expected to write reports on their operations during the year. Because of the lack of a widely acceptable measure of library performance, the reports are usually restricted to statistical estimates of additions to stock, books either borrowed or (supposedly) consulted in the library, new departments opened, and things of the like. These, for all intents and purposes, are no true indicators of how well the libraries have served their users.

Moreover, some of the views widely held by librarians on the relationships that exist between library performance and certain inputs, such as funds, staff and stock, are based more on sentiments than on proof from library research. This situation, if unchecked could perpetuate the practice whereby undue emphasis is placed on possibly less important library performance variables.

Without actual performance data, management is bereft of vital information for proper planning and taking necessary corrective measures to improve performance when it ought to. When management has a false notion of its library's effectiveness, it is bound to live in a fool's paradise. The library users are also bound to suffer untold deprivation and hardship.

There is no doubt that lack of dependable performance measure for polytechnic libraries in Nigeria will adversely affect the users who depend on them for information resources. A study by Fowowe (1989) has revealed that out of 813 respondents at the University of Ilorin, 94.8% were users of the facilities of the library. Out of these, 406 respondents (49.9) were satisfied with the library's services, while 358 (44%) were not satisfied.

Osundina (1974) reports that another survey, conducted by the Human Resources Unit of the University of Lagos showed that only about 10 percent of undergraduate students in the University had the funds to buy books they badly needed. She therefore argues that:

The problem of the Nigerian student (including polytechnic students) is not the question of wanting to use the college library. The question is whether or not his university can provide for his needs in the first place, and secondarily, whether or not he has access to what are provided. Because he has no funds to buy textbooks, or because the books are not even on sale in book stores, accessibility becomes, to him, a paramount factor in the achievement of his educational objectives.

Though the two studies were conducted in universities, Nigeria's undergraduates

generally share similar socio-cultural backgrounds and face similar economic hardships. What have therefore affected library use, or dissatisfaction with the services in universities are also likely to affect users of polytechnic libraries in Nigeria (majority of whom are students). Nzotta (1989) has even adduced evidence to suggest that effective library services are more important for the attainment of the objectives of colleges of education, (and by inference, allied colleges) than those of other academic institutions.

Furthermore, Nzotta's study reveals that most library collections are incapable of supporting the academic programmes of the colleges, most of the libraries are understaffed and some manned totally by untrained personnel, and the level and variety of services offered are below standard. Without proper performance assessment on a periodic basis, library management will be unaware that the library's performance is far below expectation and might see no need to improve on it.

Whether or not the librarians want to know about their actual performance, the users always feel the pinch. In fact, Cowley (1975) reports that students of polytechnics in the United Kingdom radically reacted to inadequate library services in 1971. In February that year, they took a militant action and occupied most polytechnic libraries for a whole day. Thereafter, urgent priority was given to library improvement.

It is wiser to learn from the mistakes of others than to wait for one's own experience which might be fatal. Therefore, there is dire need for a comprehensive

measurement of the performance of polytechnic libraries in Nigeria to ascertain how adequately they are meeting the demands of their user communities. It will be foolhardy to continue to depend on belated performance measures till Nigerian polytechnic students decide one day to embark on militarism to protest their deprivation.

Ndekwa (1991) avers that since the downturn in Nigeria's economic fortune in the late 70s, it has become common knowledge that universities and other institutions of higher learning in Nigeria are inadequately funded. Consequently, many services provided by the institutions can no longer be adequately supplied while many of their facilities are begging for serious revitalization.

Ndekwa (1991) has also argued that even when funds are made available, they are grossly inadequate because of the soaring prices of books, including those locally produced, and the effect of the depreciation of the Naira on the cost of importing library materials and equipment. "Despite these (setbacks), libraries must continue to supply services for intellectual development."

Lamenting the dwindling funds made available for academic libraries in Nigeria, Akinpelu, (1991) revealed that:

...the last two years (1989/90 and 1990/91 academic years) it seemed that only salaries of staff in the University of Ibadan are released... a great deal of the budgetary allocations are only on paper.

Given the situation in Nigeria's premier university, the situation in Nigerian polytechnic libraries is better imagined than experienced. This is more so, considering

the economic recession and its attendant hyper inflation in Nigeria since the 1992/93 academic year, obviously the worst in Nigeria's history.

Akinsanya (1991) has also highlighted the adverse effects of economic recession on the funding of Nigerian libraries. The Structural Adjustment Programme (SAP) and the Foreign Exchange Market (FEM), direct products of economic recession, have brought about the devaluation of the Naira and inflation. According to Akinsanya:

...this is so much that almost every social service is at a stand still. And prominent among such social services are libraries and information centres of which materials and human resources are threatened to extinction as a result of poor funding.

Drake and Harold ((1979) posit that funding is one of the primary economic elements in the external environment which have the greatest impact on academic libraries. Therefore, with the ugly picture painted of the state of funding of Nigerian academic libraries, it is most likely that the provision of polytechnic library resources and services that depend on adequate finance will be adversely affected. Without a proper measurement of the performance of polytechnic libraries in Nigeria, the full import of poor finances cannot be manifested. How then can the polytechnic librarians explore how to sustain the morale of users in the face of the present economic quagmire?

1.7 Objectives

The purpose of the research is to determine the efficacy of user satisfaction as a measure of effectiveness of Nigerian polytechnic libraries, identify why the libraries

are performing at the present level and what can be done to improve them. The

specific objectives to achieve the stated purpose are:

1. to determine the performance of polytechnic libraries in Nigeria by user approach;
2. to find out how well the polytechnic libraries are funded;
3. to test whether a significant relationship exists between staffing and performance of the polytechnic libraries;
4. to determine the relationship between the polytechnic libraries' collections and their performance ratings; and
5. to identify other factors that significantly affect the performance of polytechnic libraries in Nigeria and the hierarchy of their importance.

1.8 Research Questions

This work has sought answers to the following research questions:

1. How well are Nigerian polytechnic libraries patronised?
2. Why do members of the polytechnic community visit their library?
3. Why do some members of the polytechnic community not use the polytechnic library?
4. How adequate is the staffing of polytechnic libraries in Nigeria?

5. How well are the polytechnic libraries financed?
6. How effective are polytechnic libraries in Nigeria?

1.9 Hypotheses

The following null hypotheses were tested to help in accomplishing the objectives of this study:

1. There is no significant difference between the performance of Nigerian polytechnic libraries that are adequately staffed and those that are inadequately staffed.
2. There is no significant difference in the assessment of the performance of polytechnic libraries in Nigeria by the users on the one hand, and the libraries' personnel on the other.
3. There is no correlation between the performance of polytechnic libraries in Nigeria and the following variables:
 - i. operational climate (OC);
 - ii. qualitative services (QS);
 - iii. tangible services (TS) and
 - iv. library collection (LC).

1.10 Assumptions

The following assumptions are considered appropriate for this work:

1. Polytechnic libraries that are adequately funded will be more effective than

those that are inadequately funded.

2. Libraries that measure their performance annually will attract more financial support by the parent institution. This in turn will make them more effective than the polytechnic libraries that do not measure their performance annually.
3. The library personnel will contribute more to library effectiveness, the more their qualifications and experience.

1.11 Scope and Limitations

The scope of this research covers a significantly representative number of polytechnic libraries in Nigeria selected through the criteria given in section 3.6. It is concerned with the library provisions which can directly meet user needs. Therefore, the research is confined to the libraries' effectiveness in meeting user needs.

There was no intention to measure directly the internal efficiency of the libraries' management, technical and readers' services. Internal efficiency, however, could be manifest in the satisfaction of users with the resources and services. For example, if cataloguing has been adequately done, in good time, and the catalogue cards properly filed in the public catalogue, there is likely not to be user frustration in locating needed materials with the aid of the catalogue. Certainly, the work is concerned with the entire library personnel and stock and with only user-oriented services provided on a regular basis.

Because of the transient nature of the majority of the polytechnic libraries' users (the students graduate and leave within two years of their admission, on the average), this research is limited to measuring the performance of a given library only within an academic year. Retrospective measurement of performance of yester years is impracticable.

A comprehensive performance measurement of the polytechnic libraries' contribution to local industries and other outside bodies and to the overall polytechnics' administration was not contemplated, given the time and resources available for this research. Most of the polytechnic librarians are principal officers of their institutions involved in general institutional managerial duties. Such contributions, while not being underrated, are outside the scope of this work.

Finally, it is expected that the number and quality (indicated by qualification(s) and experience) of the libraries' personnel will positively affect their ability to meet users' demands. Nevertheless, lack of commitment to duty and general indiscipline of some of the personnel may annul the effect of those factors. This will, however, not be peculiar to this work. It is an acknowledged hazard of social science research.

1.12 Significance of the Study

This study is significant in the following respects:

1. By objectively measuring the performance of Polytechnic libraries in Nigeria,

this study will be of great use to Nigerian polytechnic librarians. They are expected to adopt the same technique applied in the research to measure their libraries effectiveness.

2. By determining the extent to which polytechnic libraries in Nigeria are funded, this study has revealed the difficult situation in which the polytechnic libraries are operating. This revelation could arouse the attention of the appropriate authorities like the National Board for Technical Education who could take necessary actions to improve polytechnic library funding.
3. Since this study has established the relationship between library effectiveness and staffing, it will undoubtedly stimulate the interest of the management of Nigerian polytechnic libraries in improving on their staffing both in number and quality.
4. Most of the assumptions of librarians in Nigeria and overseas on the relationship between library performance and certain supposedly effectiveness variables are often based on sentiments, not on library research. This study, by establishing the hierarchy of the importance of operational climate, library collection, tangible services and qualitative services to library effectiveness has provided a framework for policy-making for greater library effectiveness. The outcome of this research, for example, could reduce the incidence of over-emphasis on only one or two performance variables in Nigerian polytechnic

libraries.

5. Another major significance of the research is the provision of reliable information on the operations of polytechnic libraries in Nigeria. Evidence from library literature is that writers on academic librarianship concentrate all their attention on university libraries. Available literature on polytechnic libraries in Nigeria, no matter the subject, figuratively speaking, can be counted on the fingers. This research has, therefore, contributed to the literature of available on polytechnic libraries in Nigeria. The exposition of the activities of individual polytechnic libraries could bring about a cross fertilization of ideas among Nigerian polytechnic libraries for greater effectiveness.

1.13 Definition of Terms

Confucius, that ancient Chinese sage who has been held responsible for many pseudo-philosophical statements, was reported by Marchant (1976) to have been asked by one of his disciples what was the first thing he would do if he were appointed head of government. *"I would rectify the use of terms"*, replied Confucius. The disciple then inquired what such an action had to do with government, and received the answer: *"If words are not used correctly then speech becomes tied in knots, and business comes to a standstill"*.

No doubt, Confucius' argument was an overstatement. Nevertheless, the crux

of the matter is that failure to clarify operational terms or words could result in misunderstanding and misinterpretation of one's expressions. This being the case, a number of words and terms that will be recurrent in this work have been either defined or explained in accordance with their intended meaning. The recurrent words and terms to be clarified are given below.

1. ***Budgeting***

This is the annual statement of projected (library) services and programmes and what it would cost to provide them. The budget is made to attract funds from the sponsoring body for the execution of planned projects and programmes. It also indicates all the expected sources of finance for the library's programmes and how much is expected from a particular source. Past achievements, expenditures and problems of the library are also stated in the budget to justify the present financial demands.

2. ***Evaluation***

"Evaluation" according to Horngren (1972) is the art of setting a value on a system or its component. The term, "evaluation" implies quantification and comparison with laid down standards of library provisions and services. When we evaluate, we quantify performance and judge it against a given standard of library practice (output) and, sometimes, against the output of another library considered as ideal.

3. *Library Collection*

'Library collection' in the work refers to the total book volumes, variety of books in terms of subject and form, variety and number of serials titles, units of audio-visual materials, depth of the collection, document availability rate and adequacy of the stock in terms of quantity and quality (in the opinion of the users).

4. *Library Effectiveness*

The term is used in this work to mean the extent to which the library is meeting users' needs and demands in relation to its goals and objectives. "Library performance" and "library effectiveness" have been used interchangeably in the research work.

5. *Library Funding*

This term has been used in the work to refer to the obligatory act of making money available to the libraries for their legitimate operations. In the present context, the polytechnics provide the funds for their libraries' operations. The level of funding, however, is invariably tied up with how much money the parent institution has to spend within a given fiscal year.

6. *Library Goals and Objectives*

The term is used to refer to the definitive statements (often written) of the

purposes of establishing a library. In other words, it spells out the intended contributions of the library to the system or community to which it belongs. This is often broken down to specific library functions, e.g., lending, user education, reference service and provision of conducive environment for private studies.

7. *Library Standards*

Warncke (1981) defines standards as "an official statement of a level of performance, measurable to a high degree of exactness, and including a measurable means of measurement. 'Library standards', according to him, are either descriptive rules for "proper" management, or quantitative rules for "minimum" inputs of materials, personnel, and physical facilities. This is the intended meaning of "library standards" in this work.

8. *Measurement*

'Measurement' in this work means quantification. King and Bryant (1971) posit that, in the field of information service there has been a singular lack of consensus as to what to quantify or how to quantify it.

9. *Operational climate*

This is used in this research to refer to:

- I. Library building, its spaciousness and aesthetics, its acoustics, ventilation, lighting and other related features for users' convenience while in the library;
- II. Physical facilities like the number of seats for readers and their relative comfort, photocopying facilities for users (dependable and subsidized), availability of cloak room for users' personal effects, availability of neat toilets open to users, etc.
- III. Library policies relating to library privileges-length of time the library is open to users daily, including week-ends and public holidays; number of books a user is allowed to borrow at a time; duration of 'book' loans; opportunity for overnight and week-end loans; assistance to users in inter-library loans; noise control; friendliness of library staff and their preparedness to assist the users fully at all times and other policies that can attract users to the library and ensure their satisfaction.

10. *Performance*

'Performance', refers to output relative to the library's goals and objectives.

It covers the provision of both tangible and intangible, direct and indirect services-acquisitions, book loans, provision of journals, reading space, library

guiding, reference, bindery, reprography, services etc.

11. *Performance Measurement*

This means the quantification of output (of direct benefit to users) relative to the library's goals and objectives. Performance measurement is a process of evaluation.

12. *Performance Measurement and Evaluation*

The term implies quantification of output relative to the library's objectives with the purpose of value judgement against set standards or better library systems.

13. *Polytechnics and Colleges of Technology*

As has been previously explained, these are tertiary institutions set up in Nigeria to provide vocational and technical education and training for middle-level manpower. The two terms 'polytechnic' and 'colleges of technology', in this research, refer to similar tertiary institutions. They will therefore be used either jointly or interchangeably all through the work.

14. *Qualitative Services*

This term refers to all those direct and indirect services to users in the library,

which though very beneficial to them are, by their nature not easily quantifiable. Examples of qualitative services include enhancement of library use by a good user education programme, facilitation of document retrieval from the library by a dependable library public catalogue, provision of indepth reference service to users and ease of library use due to effective library guiding.

15. *Staffing*

"Staffing" is used in the work to represent the number of personnel of the libraries, their qualifications and experience and staff development programmes-in-service-training, sponsored study leave, attendance of conferences, seminars, workshops, etc.

16. *Tangible Services*

'Tangible services' refers to the direct and indirect services to library users which are amenable to easy statistical computation. Examples of tangible services are number of book loans to users, number of photocopies, number of books catalogued and classified for a given period and inter-library loans assistance to users.

17. *Technical and Vocational Education*

The terms, "technical" and "vocational", are used interchangeably in most of the literature, just as there seems to be no conscious differentiation between the concepts, "education" and "training". Though a significant difference exists between 'technical education' and 'vocational training', the two terms have been used interchangeably in this work. 'Technical or Vocational education' shall refer to the basic scientific theories and vocational-technical skills taught and imparted to students in polytechnics and allied institutions. Technical or vocational education is geared towards the production of the much needed middle-level manpower for Nigeria.

18. *User*

'User' refers to anybody who visits the library with the purpose of taking advantage of its resources and services to acquire information, for educational development and for leisure.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

In this chapter, an extensive review of library literature on performance measurement and evaluation has been made. Evidence from available literature on performance measurement shows that librarians have never underrated the importance of measuring library effectiveness. However, the non concrete nature of a great deal of library services seems to have resulted in the concentration of efforts on the quantitative measures of library output rather than qualitative.

This trend appears to be a case of "half a loaf is better than no bread". Quantitative measures alone, Stoikova (1989) has stressed, are no true measures of library performance. Radfor (1968) was even more equivocal on the subject by stating that "quantitative measurements by themselves are not very meaningful." Willemse (1989) however points out that the quantitative measures of library performance in the past did serve a useful purpose as they, at least, justified the libraries' budgets.

In recent times, involvement with library evaluation has been on the increase. Kaser (1974) has attributed this increase to the development of new techniques which make evaluations more objective and scientific. Interestingly too, librarians show a great deal of appreciation of user satisfaction-meeting user demands-as the ultimate *raison d'être* of library services. Mackenzie (1971) referred to user approach to performance measurement as 'market research'. This is considered necessary in order

to have rational planning to predict the responses and behaviour of users consequent on the provision of a service.

Lancaster (1978) has outlined three possible levels at which evaluation of an information service can be carried out. These are:

1. Effectiveness evaluation
2. Cost-effectiveness evaluation
3. Cost-benefit evaluation.

According to Lancaster, an evaluation of effectiveness is an evaluation of user satisfaction. Such evaluation should determine how well an information service satisfies the needs of its users. This type of evaluation is, however, often restricted to a consideration of how well the service meets the demands (i.e., expressed needs) of users. The latent or unexpressed needs are often completely ignored.

In discussing evaluations of effectiveness, King and Bryant (1971) draw an important distinction between *macroevaluation* and *microevaluation*. Macroevaluation tries to answer the question, "How well is the system performing?" and the results of such evaluation do not tell how to improve it in future. On the other hand, microevaluation is analytical and diagnostic. It tries to determine why the system performs at the present level and what may be done to increase the performance level in the future.

According to Lancaster (1978), cost-effectiveness evaluation is one that relates measures of effectiveness to measures of cost while a cost-benefit study is one that

attempts to relate the costs of providing some service to the benefits of having this service available. This research is concerned with microevaluation.

The literature of performance measurement mostly covers publications on libraries overseas, mainly Britain and the United States. Librarians in Nigeria have nevertheless shown some interest in the subject through their publications.

A great deal of publications relating to performance measurement has already been cited in Chapter One. There is no intention to repeat what has previously been reviewed as it will serve useful no purpose. The rest of the literature review have been made under four broad headings-Evaluation Criteria, Library Effectiveness, Methods of Performance Measurement, and Problems of Performance Measurement in Libraries.

2.2 Evaluation Criteria

There are measuring rods for every system, including libraries. Though no one method so far has been universally accepted by librarians, the most common among them have been reviewed.

The evaluation of library service is an important aspect of library administration for establishing library goals and policies. The criteria for such an evaluation, according to Chweh (1981), vary from library to library. "The most common among them are the number counts of such items as library card holders, circulation, reference questions, book acquisition, staff addition...".

2.2:1 Library Objectives

Lancaster (1978) posits that evaluation pre-supposes the existence of stated objectives. Thus, it is not possible to evaluate any service unless there is a set of objectives against which the services can be measured.

Hamburg *et al* (1974) hold the view that the basic objective of a library is the exposure of users to bibliographic resources. The more exposure that occurs the better the service performs. Lancaster (1988) slightly expands this objective and suggests that:

...a reasonable overall objective for libraries and other types of information services is to optimize the exposure of users to documents or information, to optimize accessibility of documents/information to users, or both of these. Optimization of accessibility implies a somewhat passive information service (one that waits for user to make demands) while optimization of exposure suggests something more active...

Lancaster (1988) further suggests that it is useful to relate all evaluation activities, applied to library and information services, to the general objectives of improving exposure/accessibility. "The specific functions that an information centre performs, or the services it provides, should all be designed to improve exposure/accessibility". While certain desired outcomes will be the justification of the library's existence, it is more directly concerned with the processing of inputs in order to generate outputs, which are the information services it provides. Lancaster (1988) posits that:

The primary input, financial resources, is used to acquire major secondary inputs, namely information resources (mostly publications of various types), personnel to exploit these resources, and physical facilities to store materials, offer services and so on.

Van House (1986) supports the view that the goals and objectives of a library, or any organization for that matter, should be the basis for measuring its performance or determining its effectiveness.

This is further buttressed by Ene (1978) in her research work. She states that although the effectiveness of any public library is judged by its set objectives, some attempts have been made to use some set down criteria to assess the different aspects of public library operations. According to Ene,

"The method commonly used in assessing the effectiveness of public libraries is that of the application of set standards to measure the quantity of operations in these libraries".

Rabello (1988), while not contesting Ene's view, points out that the resulting quantitative evaluation methods generally used by libraries are inappropriate as they give no indications of 'value' in qualitative terms: studies focus on the use of a collection, not the value of a collection to users. "More emphasis on evaluation in the widest possible sense", he concluded, "is essential to develop services adapted to real user needs". Rabello (1988) also suggests that evaluation should not only relate to the library's objectives but that the scope should be widened to include analysis of the library objectives themselves. "There is nothing gained by fulfilling objectives which do not themselves serve any function".

Individual libraries are making effort to establish locally appropriate system of evaluation. For example, (Cotta-Shonberg (1993) reports that Commercial High School library in the United States has completed a project to evaluate its service and

hopes to set up a permanent evaluation procedure. This practice is worthy of emulation by polytechnic libraries in Nigeria that need to annually evaluate their services in order to attract deserved support by their parent institutions. Such a necessity is stressed by House (1993) who discusses how to use data collection and research to improve library management and decision making. This writer regrets that much of the work of library evaluation has been for internal purposes whereas a library manager must convince those providing resources that the library's mission and goals are of value to the parent organization's larger mission, and that it is capable of achieving them.

2.2:2 Library Standards

Library standards are the commonest measures of library performance and yet about the most controversial. There appears to be no objective basis for establishing standards for libraries. This is why Bloss (1981) laments that:

A library practitioner has looked in vain to the library education community for a spark of interest in developing library service standards based upon solid research.

Warncke, a one time Associate Executive Director of the American Library Association (ALA), in a position paper (1973) prepared for the Standards Committee of the Public Library Association, defined 'standard' as "an official statement of a level of performance, measurable to a high degree of exactness, and including a measurable means of measurement". Bloss (1981) identifies one of the problems of standards as definitional. For instance, *Webster's Third New International Dictionary* relied on by

many a writer has in this instance, eighteen different definitions of 'standards'. From that array, it will no doubt be possible to select a definition to suit the particular purposes of the commentator. Kaser (1972) explains that, at the planning and preparatory stages of setting up a library, the practitioner usually looks up to a guideline for defending budget estimates, determining space, staff and collection requirements by whatever name (guideline, standards, criteria) that might be employed with some degree of confidence and credibility as aids to decision. The existence of standards of library practice could therefore be of great use to a new library.

Beasley (1968), an authority outside librarianship, posits that:

Standards are neither objectives nor performance measures. Objectives are general statements of purpose, and performance measures are a quantitative means of relating benefits (outputs) to costs (inputs). Library standards are either descriptive rules for "proper" management, or are quantitative rules for "minimum" inputs of materials, personnel, and physical facilities. However, they are often considered to be objectives or performance measures or both.

Quantitative standards, in recent decades, have sprung from the aggregate experience of the profession-to the degree that can be determined-rather than from the experience of individual experts. Standards must, almost by definition, arise from the possible.

Lancaster (1977) has extensively discussed the relevance of standards to the evaluation of library services. He notes that library standards are guidelines rather than the type of enforceable standard that operates within industry. In his own words:

They [standards] tend to be derived by looking at quantitative aspects of selected institutions that are considered to be "good" institutions. Such aspects would include size of collection, hours of service, space,

seating, and so on. Library standards emphasize inputs (resources) rather than outputs (services). They have some value, as procedural guidelines, in establishing absolute minimal requirements for various types of libraries, and sometimes in convincing the appropriate authorities that the library is underfunded, but are too general and imprecise to be used in the detailed evaluation of library services.

From the foregoing review, it can be seen that while there is the definitional problem of standards in librarianship, there appears to be a unanimity of opinion on the concept, and limited value of 'standards' in performance measurement.

2.2:3 Standards for College Libraries

The College Librarian who must discharge his professional responsibilities within the framework of an academic institution is dependent on the level of support he receives from the college administration for the implementation of the library programmes he plans. Brown (1972) feels that:

The availability of clear and authoritative standards setting forth the specific limits of acceptable library practice and support may mean the difference to the librarian between professional fulfilment and frustration.

Brown (1972) further reports that in 1929, the ALA established standards for academic libraries based on their total expenditures and for each class presents a typical budget with a schedule of professional positions and salaries, a figure for student and clerical help and an amount for books, periodicals and binding.

The method used in compiling the specifications was to obtain a subjective rating of approximately 100 college and university libraries from a group of experts.

It was found that libraries whose services were considered above average had in almost every case income equal to or in excess of \$25 per student and the library income was also over 4 percent of the total income of the institution.

According to Milan (1930) a summary of "suggestions for Minimum College Library Standards" was made in 1927. These widely ranging standards covered library income, book stock, annual appropriations for books and other factors. The figures were in most cases related to the number of students, faculty or the total income of the institution. There was some consensus that the standards should be developmental in nature and should rise to higher levels as the property and/or size of the institution increased.

College Library Standards have not been very definitive. Brown (1972) states that before 1934 the North Central Association (USA) merely required a college library to be professionally administered, with a minimum collection of 8,000 volumes and an expenditure of at least \$5 per student. In 1934, according to Waples (1936), following a study made for its Committee on the Revision of Standards of the Commission on Higher Institutions, the association adopted new criteria. The basic assumptions of the study are: (1) an effective college must have a good library and (2) the functions of the college library should be defined entirely by the educational programme of the institution.

The analysis resulted in the identification of six measures for the educational value of the college library:

- (1) The number of general reference books held by the library that were contained on a checklist of selected titles;
- (2) The number of periodicals currently subscribed to from a check list of periodicals preferred by college libraries;
- (3) The average annual expenditure for books and periodicals during the preceding five years;
- (4) The annual expenditure on library staff salaries weighted for the size of the enrolments;
- (5) The average annual number of free loans per student; and
- (6) The average annual number of loans to faculty members.

Between 1934 and 1959 several efforts were made at formulating acceptable standards for college libraries in the United States. Various Committees of the Association of College and Research Libraries submitted successive reports on the standards issue. The Association of College and Research Libraries (1959) reports that one of the most significant of such standards was adopted in January 1959 by the Association of College and Research Libraries (ACRL) Board of Directors. The document is the first comprehensive guide for the evaluation of college libraries, embodying in less than six pages the compelling factors in good college library administration. Quantitative measures of adequacy were also included.

The section on the functions of the college library goes beyond the traditional support to the college programme and stresses that the library has a laminae purpose

of its own, "to present the heritage of Western and Eastern thought". It further prescribed that the library should endeavour to meet the legitimate demands of all its patrons, should stimulate the use of all its resources, and should play a role in the community and in the world of scholarship beyond the campus. The document presages the independent functions claimed for today's information centres. This essentially modern section ends with the compelling statement that the standards presented in the document must always be interpreted in the light of the objectives and needs of the individual institution.

Standards prescribed for staff include the minimum number of professional librarians required for effective service, the use of supporting personnel, the qualifications and status of the professional staff and their place in the instructional programme of the institution. A minimum of three professional librarians-the Chief Librarian and the staff members responsible for readers services and technical processes-is called for. It suggested that professional staff members should not spend their time on works of an essentially clerical nature.

The Conference of Polytechnic Chief Librarians in Nigeria (COPLIN) has taken a cue from the foregoing college library standards in the United States. In a document on Standards for Polytechnic Libraries in Nigeria Published by the NBTE (1988), a minimum of three professional librarians-the Chief Librarian and the librarian in charge of readers' services and technical services-was recommended as professional staffing target for all polytechnic libraries in Nigeria.

At the Dallas Conference of the ALA (1971), an ACRL membership meeting received a proposal of its Academic Status Committee, "Standards for Faculty Status for College and University Libraries." This document goes far beyond the 1959 standards statement, reflecting both the increasing professionalization of librarianship and insistence on the academic nature of the librarian's work. Quantitative standards, according to Brown (1972) were also suggested, based on an analysis of small college library statistics, providing yet another instance of the judgement of academic library experts working from objective data.

Clapp and Jordan (1965), of the Council on Library Resources challenged the quantitative figures for library collections in the "Standards for College Libraries" as merely reflecting the accidentals of college library statistics. They presented a new formula which they had developed for their own use taking into separate account the principal factors which affect the requirements for books in connection with academic programmes.

The Clapp and Jordan's method was to count titles on various basic general academic and subject lists and use the count to construct their formula for estimating the size for minimal adequacy of the collections of senior college and university libraries. A certain number of volumes was to be added to a basic undergraduate collection of 50,750 volumes for each faculty member, each student, each undergraduate in an honours or independent study programme, each field of graduate concentration (Master's work). Brown (1972), highly impressed by the formula, states

that "the authors' method of breaking their estimate down into component parts gives an air of conviction to the whole."

There were specifications regarding the size of the library building and provision of seats (1/3 of student enrolment). Another operative factor of note is: "in-house service" should be given by the college library to persons living in the geographic community. Above all, the standards lay emphasis on the evaluation of library service and on the difficulty inherent in such an evaluation.

Of the various ways suggested to measure the success of library activities, one can question the theory that improvement in library service to students can be measured by an upward trend over a considerable period of time in the per capita figures of books on regular loan to students. Brown avers that both the extensive use of paper backs which students buy in preference to borrowing library books and the trend toward longer periods of loan have reduced the reliability of this measure.

Inter-library cooperation was also advocated. The present research work has gone beyond quantitative assessment of adequacy of polytechnic library collections to the qualitative assessment of services rendered to users.

In the United Kingdom, the Library Association (LA), (1968), suggested some principles and a few quantitative norms for polytechnic library standards. It was recommended that the libraries should contain not only books and periodicals but also nonbook media and facilities for their use. They should play a major part in the teaching programme by stimulating intellectual curiosity and independent learning and

by counteracting the specialization inculcated by teaching courses. The following definitive statements concerning the stock of the library were made:

1. A basic stock of 150,000 volumes and 3,000 periodical titles for 2,000 undergraduates. A minimum annual budget of £60,000 for books and periodicals and £10,000 for other library materials. 80% of the stock should be on open access at 90 sq. ft per 1,000 volumes, and the other 20% at 45sq. ft. per 1,000 volumes.
2. Seating requirements should vary according to subjects studied; one seat to four students in sciences and technology and one to three for other disciplines. Each undergraduate reader's place would occupy 25sq. ft. and post graduate, 35 sq. ft.

Staffing requirements are given in proportion to the size of the stock, etc. But the guide, in an appendix, lists a total of 97 staff, of whom 38 were professionally qualified. Humphreys (1972) submits that this was out of proportion to the situation existing in most polytechnic libraries at the time.

The Library Association (1972) indicates that the next version of the LA's standards was issued in 1971. It gives full account of the different aspects of college libraries. Its first principle is that the library's stock should be sufficient to meet the main needs in all subjects taught in the college. It suggested that the basic stock for a college without degree work should not be less than 10,000 book titles and 100-600 periodical titles.

Library staff was to be provided in a ratio of one to every twenty teachers, with a ratio of 40:60 professional to non-professional staff.

The recommendation on building cover siting, convenience of access, planning for expansion, aspects of construction and some indications of size - 6,000 sq. ft. for a small college, 18,000 sq. ft. for a regional college based on one place for every five students of applied science and technology, 1:4 for pure science and technology, and 1:3 for other disciplines, at 25sq. ft. for undergraduate and 35sq. ft. for post-graduate. Book stocks should occupy 90 sq. ft. in open access and 45 sq. ft. in closed access for 1,000 volumes, and library staff should be allocated 100 sq. ft. each.

The college library expenditures should be 2 - 3 percent of the college expenditure. These figures were close to those of other library association standards at the time.

On the whole, the standards for college libraries were meant, above all, to be useful to the librarian, to the college administration, to the budget administration, to the budget-approving authority and to protect the interest of potential library users. As a yardstick for measurement of the college library performance, standards have been found to be grossly inappropriate. The emerging techniques of library performance measurement look beyond prescriptive standards to user satisfaction.

According to Walch (1993), in 1986, the Association of College and Research Libraries (ACRL) Committee on Standards reviewed the existing college library standards. This was aimed at addressing developing concerns in academic libraries.

These include collections and staff formulae, budget, audio-visual collections and services, networking and co-operative associations. Walch surveyed 215 academic libraries in the US, to determine the use and effectiveness of the 1986 standards. Results show that the standards are widely used and that there is keen interest in the application and further development of the standards.

Nevertheless, it does not appear that the stipulated standards are actually being met despite their wide application. A research work by Goudy (1993) has revealed that the library budget allocation, which was recommended to be a minimum of the total institutional budget was not being realized on a USA nationwide basis, instead, the percentage was steadily declining.

2.3 Library Effectiveness Measures

Okpala (1984) avers that Library effectiveness does not necessarily connote library efficiency. Effectiveness measures the satisfaction of needs while efficiency is concerned with making maximum return from units of inputs into a system. Wessel and Cohressen (1967) state that when operations are efficient, services are effective. Therefore we cannot ignore efficiency if we are to achieve library effectiveness.

As far back as 1955, Convey had made library effectiveness the subject of serious research. Since then several studies have been done all over the world on the subject. Marchant (1980) briefly discusses the measurement of library effectiveness using the open system theory of organizations and a model for evaluation of academic

libraries appropriate to the open system. Ene (1978) has carried out research on the effectiveness of libraries in Benin-City, Nigeria in meeting user needs. According to Ene, although the effectiveness of any public library is judged by its set objectives, some attempts have been made to use some set down criteria to assess the different aspects of public library operations. The method commonly used in assessing the effectiveness of public libraries is that of application of set standards to measure the quantity of operations in these libraries. Bird (1981) did a preliminary study to probe the views of libraries, relating to role of evaluation and the assessment of effectiveness. Interviews were conducted in a 10% sample of library authorities in England. A workshop was set up to further explore the levels of understanding of and commitment to the use of evaluative techniques applied to library performance. Two detailed check lists relating to effectiveness and evaluative design were generated and used as basis for the work.

Bird's was a rather modern technique of assessing library effectiveness and a far shift from the traditional system of applying standards as measure of effectiveness. Sell (1980), blazing the same trail, undertook a study to broaden the theoretical base on which effectiveness of library services can be determined, to translate findings into operational terms, and to test operationally, system of assessing and monitoring effectiveness on the basis of the findings. The methodology developed questionnaire in which the users were asked to rate the relative importance, level of user satisfaction, user benefit, and effectiveness of each library service. The questionnaire was tested on

a college library with promising results.

The user's satisfaction has of late been acknowledged as the ultimate measure of library effectiveness. For instance, user education is an important service rendered by libraries. Schrader (1981) posits that no matter the amount of effort made by the library, no matter the cost in time and money of user education, it can only be said to be effective if it achieves its purpose-making users acquire skill in library use and independent studies in order to fully exploit the rich resources of the library. James (1983) has stressed that in using a library, the library users are pursuing their own ends and relating the library to them:

What they want from the library, what they do with the library, how the library can best provide for them, will depend on the individual, his purposes and the place of the library in his bank of resources for fulfilling them.

Fowowe (1989) has equally asserted that the effectiveness of a library as an instrument of education is determined by the success with which it is able to provide the user with the information he seeks. He further posits that:

"...the library can fulfil its function best by pursuing a policy of constant self-evaluation in order to be alert to the changing needs of its users".

But how can a library know whether it is satisfactorily playing its role? Behling and Cudd (1967) have stated that "the ultimate authority, the library user, is the most logical source of answer". And the users can easily be consulted if the library adopts a policy of periodic measurement of its effectiveness.

Unfortunately, early library evaluation of effectiveness were based on faulty

methodology. Shera (1970) notes that those evaluation were measurement of such tangible elements as physical facilities, staff, budgets and book collections. The much talked about library standards have come under severe criticism as a method of measuring effectiveness. On library standards, Martin (1972) comments:

The main advantages of this method are that statistics are easily available, easily understood and easy to compare; the main disadvantages are lack of standard distinction between titles and volumes. Difficulty and possible inaccuracy of published data.

Ene (1973) states that other criticisms of the use of standards include failure to measure adequately the quality of service and users' satisfaction. Some of the standards are too high and therefore difficult to apply. Objectives vary from library to library, so judging a library in a particular milieu with another one with peculiar surroundings may not make much sense.

The inherent weaknesses in the use of standards for evaluating the effectiveness of libraries led to the device of new techniques which take into account the users' satisfaction. Reed (1974) avers that Public librarians blazed the trail in this matter. The whole issue of *Library Trends* of January 1974, for instance, was devoted to the modern methods of evaluating the performance of public libraries. These innovative works used techniques of systems analysis and operational research because the statistics kept by public libraries were not adequate to measure effectiveness accurately.

Morse (1968) applied operations research techniques in his book, *Library Effectiveness*. He used "unsatisfied document demand" as criterion of performance. The

system laid emphasis on book use and its potentiality for satisfying present and future requests for material. The system is complicated and difficult to follow but one of its major advantages is that the models can be updated without gathering much additional data.

Orr *et al.* (1960) used "user satisfaction" to measure the effectiveness of medical libraries. In their publication, the following criteria were selected to reflect user needs:

1. Obtaining documents
2. Locating citations
3. Receiving answers for scientific needs
4. Obtaining instruction and consultation

These services were weighed and ratings were used to assess the service qualities of different libraries. Librarians simulated users and tested the system by using a prepared checklist. One of the major shortcomings of this technique is that the librarians' weights or ratings might differ from those of actual users. Olsen (1970) modified and applied the checklist and used it in a major study. "Readiness to serve", "user instructions and education" were some of the criteria used in judging public, academic, special and school libraries in Indiana. Although this study was about the only one involving different types of libraries, it was not based on data collected from interviews of the actual users of the libraries.

The University of Lancaster, according to Buckland (1970), tested "effectiveness" by conducting a 'frustration survey'. The study tried to develop models

for the university's circulation policies and availability of documents. Unlike the previous studies, this study was found to be very useful as actual users of libraries were used and the researchers were librarians. It has already been reiterated that the system which would be best in assessing effectiveness should be user oriented.

A study carried out by the Bureau of Library and Information Science Research at Rutgers University marked yet another milestone in the development of modern criteria for measurement of library effectiveness. The study, sponsored by the Public Library Association under the auspices of the American Library Association made the users the central factor and used three criteria in assessing their needs;

1. *Collection*: Making materials available to users
2. *Facilities*: Providing facilities to users
3. *Staff*: Making staff available to users

In assessing the collection, it was assumed that the larger the collection, the more likely the library was able to satisfy requests. The assumption has been justified by Ifidon (1977). He proved that the larger a Nigerian University library collection (in quantitative terms) the more likely it is that it can support post-graduate research programmes in the humanities and social sciences. The Rutgers University study by De Prosop, Ellen and Bealey (1973) used booklists and library catalogues to assess the up-to-datedness of collection. Taken into account were titles not owned by the library, those owned but not immediately available. Periodicals stocklists were also used to check the libraries' holdings.

To test for the effectiveness of library facilities the items considered were the use made of these facilities inside and outside the libraries, the time spent by users inside the library and the satisfaction they got, the number and variety of the services offered as well as the different groups of people served within the society. Libraries were also assessed by their non-book programmes for the public, such as film shows, exhibitions, book talks and concerts. Community-outreach programmes aimed at reaching special groups (mostly those in hospital or prison confinements) were also bases for assessment. Both staff and actual users were used in the study while questionnaires, observations and mathematical computation were employed for measurements.

Cullen and Calvert (1993) examine the multiple constituencies model of organizational effectiveness. The constituencies are made up of librarians, users and councillors. A random sample from each group was surveyed using indicators of performances based on performance measures identified in the literature. Respondents rated the importance of each variable. This refinement in methodology is reminiscent of the frantic effort at performance measurement especially in public libraries in order to justify public expenditures on them. Ellis (1994), for example, has described the activities of the Business Research Services Survey in measuring the economic activities of High Point Public Library, North Carolina, and the business information it provides. Carbone (1993), in the same vein reviews performance measurement in French libraries under the technical, methodological and financial points of view in public libraries,

academic libraries and documentation centres and concludes that since the 80s an evolution has begun in performance measurement which will lead to more experimentation and research.

The search for appropriate measurement technique appears to be endless as new ideas are being tried. Salter (1993) describes the use of document availability surveys as a tool for measuring performance in colleges of further education libraries. The technique calculates the extent to which library users seek and find specific titles. When a user fails to find an item, this failure is allowed 1 of 4 categories: not owned; on loan; user error and library processes (waiting to be catalogued, shelved, bound).

Performance measurement is widely acclaimed to be the best way of ensuring value for money but an agreed method is lacking. Harnesk (1992) reports that decentralization of higher education financing in Sweden has led to demand for demonstration of value for money, but an agreed method was lacking. Vokac (1992) posits that performance measurement in libraries as an industry is a way of monitoring their efficacy, but unlike industrial products, library products vary from a simple loan to the answer to a complicated and vague enquiry. Costing of the services are also said to be very complicated if external sources are used.

Attempts are being made to fashion out widely acceptable performance measures for libraries and information centres with the support of UNESCO. Moore (1992), presents the first part of an initial draft of a manual produced on behalf of UNESCO, the aim of which is to suggest ways in which public librarians can measure the

performance of the services they operate. The intention is to provide a basic common approach which can be used widely in different countries and measures are developed at two levels: measures of resources and measures of output.

Lancaster (1978) prepared a similar guideline for the evaluation of information systems and services for UNESCO under contract.

Thus, we can see that "effectiveness" is a major concern in organizations of all sorts, including libraries. Lynch (1983) observes that public libraries have been particularly active in trying to define, measure and promote library effectiveness.

According to Van House (1986), in assessing organizational effectiveness, three basic questions must be answered.

1. What is the desired result?
2. How does one measure it?
3. What produces or causes it?

Answering the first question requires a definition of organisational effectiveness; the second, the appropriate measures and measurement methods; and the third, analytical methods that treat effectiveness as the dependent variable and seek to identify the independent variables.

Organizational effectiveness (OE) is a major topic of both practical and theoretical management research. Mohr (1982) describes it as "the Holy Grail of organizational research" while Goodman and Pennings (1981) observed that it is "one of the most persuasive, yet least delineated, organizational constructs relevant to all

participants in organizational life." Research on library effectiveness (e.g., De Prosopo (1973); Hamburg (1974); Lancaster (1977); Kantor (1984) has been concerned primarily with developing measures and data collection methods. Only a few researchers have so far addressed the issues of the definition of library effectiveness and validity of measures (D'Elia & Walsh (1983); D'Elia (1983); Van House (1985) while Getz (1980) has done a study on the determinants of library performance. The underlying assumptions on output measures for public libraries, according to Van House (1986), are that public libraries have, if not universal, at least recurring goals; that managers should be able to identify; at least, some of the determinants of the output measures, and to affect a library's performance by manipulating those determinants; and the measures are valid for both longitudinal and cross-library comparisons.

A noteworthy feature of all the contributions made on "library effectiveness" is that the term is used interchangeably with "library performance." The user is acclaimed the ultimate measure of library effectiveness/library performance. The present research upholds that view and so bases the effectiveness of Nigerian polytechnic libraries on user satisfaction.

Many other researchers and writers on librarianship have specifically addressed themselves to the issue of 'performance measurement' or 'determinants of library performance.' Their views are not at variance with the contributions made on library effectiveness. However, some of the most outstanding ones have been reviewed if only

to justify the approach adopted in the present research for measuring the performance of polytechnic libraries in Nigeria: 'User satisfaction.'

2.4 User Approach to Library Performance Measurement

Perhaps there is no better way of starting this important section of the review than to highlight the strong views expressed by users themselves on the criteria for library performance measurement. Writing in *The Chronicle of Higher Education*, two faculty members from Towson State University (Lev and Vatz) (1983) proposed their own scale for the evaluation of academic libraries. Their evaluation criteria are:

- Percentage of volumes not missing
- Percentage of serials unmutillated
- Average decibels of noise per floor
- Number and percentage of working photocopy machines
- Incidence of eyestrain among micro-forms users
- Friendliness and helpfulness of library staff.

On these evaluation criteria, Lancaster warns that they should not be dismissed too lightly:

That users of libraries propose such criteria, even in jest, should prod librarians into the critical examination of their services and encourage them to perform objective studies designed to make their institutions a growing organism rather than a growing mausoleum.

It is easy to see that all the criteria put forward by Lev and Vatz bother on user

convenience.

On the views of professionals, that of Alfred (1980), a one time Reader in Librarianship at the Leeds Polytechnic, readily comes to mind. He advocates the use of fairly simple measures for library performance which act in the way that a thermometer records a person's health. Says he:

One area which appeals is a measure of value to the user. This is good in that it is the one assessment of the quality of the service as perceived by the user, but it has the drawback of being tricky to measure by questionnaire, etc and is confusing if the users' reasons for trying to use the library are at variance with the librarian's intentions in providing the service...

Alfred (1980) also reveals that, a public libraries research group has suggested a more practical measure which has an indirect connection with the quality of service; the number of visits people make to the public library for different purposes; the number of people asking reference queries; the number of school children coming during library periods; and the number of "live" borrowers. The notable danger in this approach is that librarians could emphasise visits at the expense of library service and user satisfaction. It is necessary to resist the temptation to gross up the totals of visits for various purposes. For instance, one reference inquiry does not equal one visit to borrow a book. The former is certainly more significant in library service. Moreover, a library offers many different services for diverse purposes. All these notwithstanding, people only use the library if they expect their visit to be rewarded. Their continued patronage of the library is therefore an indication of confidence (satisfaction)

in the library.

Lancaster (1988), one of the foremost writers on library evaluation, has also advocated the user approach to performance measurement. According to him:

the library... can be looked upon as an interface between the available information resources and the community of users to be served. Therefore, any evaluation applied to the library should be concerned with determining to what extent it successfully fulfils this interface role.

Another notable advocate of user criteria for measuring library performance is Stephen Seokho Chweh (1981). He says that the most common criteria among libraries for performance measurement are counts of such items as library card holders, circulation, reference questions, book acquisition, staff addition, community programmes, etc.

While these items are certainly related to and may indicate the degree of successful library service, they are not the direct measures of service which users expect of libraries. To provide user-demanded services and to measure the rating of these aspects, it is essential to identify specific items that users demand from libraries. To users, these items will be criteria for library evaluation. The rating of a "good" library or "good" library service to users will have a direct correlation to how satisfactorily their demands are fulfilled.

Chweh has remarkably gone beyond mere expression of concern for library performance measurement to scientifically designing a model questionnaire to evaluate library service through the eyes of the users. Other advocates of user approach to performance measurement include King and Bryant (1971) argue that because of the way in which user activities and system functions overlap in interactive systems, evaluation of performance of such systems must involve the user, even for diagnostic purposes.

The concept of quality management is being extended from the industry to libraries and information centres. According to Brophy (1994), this concept places premium on the end user of a product as the ultimate determinant of the quality of service output. To this effect, a series of procedures have been suggested by the International Standard Organization, popularly known as the "ISO 9000 Quality Management System". The library of the Central Lancashire University is reported to have implemented the system and is the first major library to have done so.

In the implementation, the library researched the concept of "quality" as applied to a publicly funded service and has shown that strategic and operational approaches to quality management are both important alongside continuous quality improvement. The ISO 9000 emphasizes that the success of any quality management system can only be judged by the impact it has on user services.

Ertel (1994) reveals that the Apple Computer Library (Apple Computer Inc. California) has designed a tool which helped them measure how effectively they were fulfilling the needs of their information customers on a continuing basis. The library is of the conviction that one of the key components in looking at quality in organization is to focus on continuous improvement in meeting the clients needs. Morris (1994) acknowledges that the concept of user-centred library services is discussed in library literature as an antidote to a systems-centered approach. The consensus is that our (information professionals) attitudes have to change in order to develop user-centered services. It is also recommended that user approach to measurement of services should

replace existing system by bringing about a redesign of the library's mission.

The user-centered approach has also been advocated by Johannsen (1994) who argues that modern quality control stresses the difference between subjective and objective quality and aims at a user-centered definition. According to him, "There has been a development from a narrow control of products to Total Quality Management (TQM). Its basic method is the Plan-Do-Check-Act circle".

Winkworth (1993) calls attention to the subject by summarizing the history and current status of the use of performance measures and indicators in UK academic libraries, with particular emphasis on current developments and analysis of recent external influences. In another publication, Winkworth (1993) presents an approach to framing service performance indicators and discusses the selection of performance indicators for the library, overall quality of library services, the user survey is the best bet, backed up by more objective targets and measures for particular activities.

In Nigeria, Ene (1978), Ifidon (1977) and Fowowe (1986), among others, have conducted serious inquiries and surveys on how well public and academic libraries are satisfying their users' demands. These variously but unanimously assert that user satisfaction is the ultimate measure of how well the library is performing (quantitatively and qualitatively). Fowowe, for instance, posits that the library can fulfil its function best by pursuing a policy of constant self-evaluation in order to be alert to the changing needs of its users. He raises the question of how a library can know whether it is satisfactorily playing its role. To this, Behling and Cudd (1967) state that "The ultimate

authority, the library user, is the most logical source of answer". They state further that "...it would seem more logical to seek users' opinion and measure their attitudes in an active and systematic manner." Thus, one can see that the user approach to performance assessment of polytechnic libraries adopted in this work has strong theoretical backing.

On his own part, D'Elia (1980) conducted a 'User Satisfaction Survey' of St. Paul's Public Library, Minnesota. He distributed a total of 208 copies of a questionnaire for the survey based on a conceptual model which treats user satisfaction as a function of

1. The user's demographic characteristics,
2. The various uses made of the library by the user, and
3. The user's evaluation of the characteristics of the library used.

Coffindaffer (1987) did his Ph.D research on "six output measures correlated with user satisfaction in the branch libraries of the Carnegie Library of Pittsburgh system." It was concerned with user satisfaction as expressed by adult users and six specific output measures defined as "library services" by the Public Library Association, a division of the American Library Association. The study was predicated on user satisfaction as an indicator of public library effectiveness. To provide data for the research questions, two surveys were conducted. The first included the directors of all the 18 branch libraries. The second was a user survey of a sample of the registered adult borrowers at the branches. Four hundred and ten (410) users in the sample survey population were

selected from the total numbers of registered borrowers of the branch libraries. The sample was distributed proportionately among all branches. Using Statistical Package for the Social Sciences (SPSS), he computed the variables and the regression analysis. User satisfaction was used as the independent variable while the six output measures were the dependent variables. It was found that no significant positive correlation existed between user satisfaction and any of the six specific output measures tested. This finding is at variance with the result of the present study which showed a highly significant relationship between user satisfaction and five output variables - staffing, operational climate, library collection, tangibles services and qualitative services.

Coffindaffer's finding calls into question the use of output measures for the assessment of public library effectiveness or that of any other library for that matter. It also has failed to take into consideration the "non-users". Every non-user is a potential user. The present research has therefore taken into consideration the views and feelings of the non-users. A study by Safari, Renoult and Jullien (1989) has revealed reasons for non-attendance to the library by users. This vital information is to be used by library management for planning and modification of operational strategy.

Another Ph.D dissertation by Whitlatch (1987) at the University of California, Berkeley (1987) has much significance to the present research. The study inter alia identifies user and reference librarian differences in perceptions for the following service outcomes: general quality of service, relevance of information and amount of

information. For approximately all transactions, librarian judgements of service value were adequate substitute for user service value judgements because librarian ratings on all aspects of service were identical to or lower than those of users. It seems the librarian's judgements in the California research were not only objective but modest. Contrary to this modest assessment, the present research established a significant difference in the ratings of the levels of polytechnic library performance by the users on the one hand and the librarians on the other. This finding also justified by priori evidence from the Nigerian public service where people praise their performance even when those served strongly feel otherwise.

Bernard, Oort (1986), at the University of Technology, Loughborough, for a Ph.D study evaluated the performance of twelve business school libraries from eight European countries, Denmark, France, Ireland, Italy, the Netherlands, Norway, Switzerland and the United Kingdom. It was discovered that library policy is very much customer (user)-oriented with a flexible approach that can be recognised since business school librarians generally are prepared to change services to better satisfy their readers' needs if possible. In most of the business school libraries, an effective and efficient performance was observed. However, readers were only assumed to be generally satisfied with the services provided since many alumni of the schools still made user of business school libraries.

2.5 Other Library Performance Measurement Techniques

Making a survey of an individual library system was the first approach in the evaluation of library services. This is still in vogue at present, though the techniques are more refined than those used in the 19th century. Wand (1972) reveals that the first major survey in the public library field followed the Philadelphia Centennial of 1876 and was published as the US Government Report on public libraries in the United States.

Apart from surveys, libraries, over the decades have applied statistics as a measure of performance. Statistics, according to Shick (1974) represent facts which then can be used for planning and development. "Statistics deal with numerical data and the methods of collecting and interpreting them in order to arrive at sound conclusions." Library statistics are so concisely and precisely organized that they are easily comparable. The comparison could be with that of the same library for different periods or different libraries for the same period. Librarians have therefore wisely reduced information about some activities of their libraries to statistical form.

There are standards for library statistics. Sanz has estimated the results of 6 years of applying standards by libraries in France. He reveals that in 1987, AFNOR adopted the standards which existed internationally, as reference texts and at the end of 1992 it voted for European status of the ISO standard for library statistics.

Dipeolu (1974) has listed aspects of library operations easily amenable to statistical quantification. they are:

1. Resources-books, periodicals, manuscripts, maps, microforms;
2. Library use-(a) circulation of books both for home use and for use in the library
(b) reference and other forms of assistance to readers;
3. Expenditures on (a) books, periodicals etc. (b) Salaries (c) capital-equipment,
etc.
4. Personnel-showing the total number of positions as well as the ratio of
professionally trained members of staff to other categories;
5. Building facilities-total square footage of space; amount of work space and
shelving, etc.
6. Library processes-number of books classified, catalogued and finished;
7. Interlibrary loans.

Library statistics has local, national and international use all of which have been highlighted by Dipeolu. In recent times serious queries are raised by librarians and information workers on the reliability of statistics as a measure of library performance.

The crux of the argument of the critics is that statistics alone can be deceptive as they are merely quantitative, not qualitative indicators of output. For instance, Stoikova (1989) claims that the established practices of recording answers to readers' queries reflect quantitative rather than qualitative factors. The statistics has no way of indicating whether or not the query was dealt with adequately and efficiently. Little data is also available about the readers' education or preceding knowledge.

Other approaches to performance measurement of libraries are operations

research and systems analysis. These have developed from the principles and ideas of scientific management of the early twenties and the later time and motion studies.

According to Ogundipe (1980), 'Operations Research' has been defined officially by the O.R. society in Britain as:

the application of the methods of science to complex problems of men, machines, materials and money in industry, business and defence. The distinctive approach is to develop a scientific model of the system, incorporating measurements of factors such as chance and risk, with which to predict and compare the outcome of alternative decisions, strategies and control. The purpose is to help management determine its policy and action scientifically.

Operations Research method has been used to test, question, evaluate and develop many library activities, practices and problems. Leimkuler (1980) avers that:

"Much of the various research work and publications produced by the University of Lancaster Library Research Unit, the Manpower Unit at Cambridge... use the techniques of Operations Research".

Operations research would ideally wish to ensure that the coordination and integration of procedures or activities within the library system is time and labour saving and the most effective.

As a measurement technique in libraries, operations research has a serious setback. With operations research, we know more about what goes into a library than what comes out of it. For example, we can measure the titles held in the library, the number of staff, and the major functions. These pieces of information mainly serve those who work in the library not those who use the library.

Economic modelling of library operations has generally a small literature of

analytic papers, which can be subdivided into those which seek to describe the operating expenses as a function of other variables and those which accept circulation as a single indicator of productivity, seeking to describe it as function of other variables.

Baumol and Marcus (1981) carried out a study of academic libraries, exploring linear relations between a variable called total operating costs and a set of intermediate variables such as staff and volumes added. Libraries were grouped according to the enrolment of the supporting institution and several (different) formulae were obtained. By t-test, the most significant variables in the combined fit seemed to be volumes held, volumes added and the size of the professional staff. The simple correlation coefficient indicated that total operating costs were mostly highly correlated with the number of librarians (over 0.90 at both public and private institutions). The relation of operating costs to measures of output was not examined.

Pratt (1975) studied the distribution (for the year 1971) of the monograph holdings, periodical holdings and budgets of 2,751 academic libraries in the US and concluded that they were described by a log-normal distribution. In a related study, Stayner (1979) examined the relation between total budget and output (measured by circulation alone) for a collection of public libraries in Victoria, Australia. Fits of total circulation to budget were implied by some of the tables presented with the 90% confidence range being about $\pm 20\%$.

2.6 Summary

The foregoing literature review shows that librarians have expressed much concern over the performance measurement of library services. A comprehensive measurement of library performance periodically is considered very important because the outcome could help the library management convince the funding authorities on the need to give greater support to the library's programmes. Furthermore, the performance measurement is considered very necessary in order that the library could know how well it is performing and how to improve the present level of performance.

Over the years, librarians and information scientists have adopted various approaches to quantify library output and appraise its effectiveness. The popular techniques adopted to measure library performance include application of library standards, computation of library statistics, operations research and a measure of user satisfaction.

Owing to the inherent difficulty in measuring library output, especially the abstract services, many practitioners have concentrated their energy on measuring only those aspects of library services which are easy to quantify. However, a great many are of the opinion that mere quantitative assessment of library performance will be of limited usefulness. Those interested in economic modelling of library operations were more interested in measuring cost effectiveness and internal operational efficiency.

While internal efficiency is desirable for libraries, the literature stresses that library effectiveness should be the ultimate concern since an efficient library may still be ineffective in meeting the user needs.

Several reasons have been adduced in the literature on why an opinion survey of the users' satisfaction should be the ultimate measure of library effectiveness. The highlight of the argument by the proponents of user approach to library effectiveness measurement is that the library exists for the users, so it is only the users who can indicate how well the library has met their needs, relative to its goals and objectives. By allowing the users themselves to assess the library's performance, the library management can know which aspects of the services are being well provided and which aspects fall short of the expectation of users, and so need improvement.

While advocating the user approach to library performance measurement, many writers emphasize 'user demands' rather than 'user needs'. This, according to Willemse (1989) is a great defect since there is a great deal of difference between demand and need. Very important user needs, for example, may not be demanded because they are unaware that the library is capable of providing them.

The literature emphasizes that, in order to obtain the required financial support for their services, libraries must convince the funding authorities of the relevance of their goals and objectives. Consequently, the measurement of library performance must be related to the goals and objectives of the library. The library's performance must be determined in order to ensure that appropriate measures are taken for the

attainment of the set goals and objectives.

CODESRIA - LIBRARY

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The success of every research largely depends on the adoption of an appropriate research method. No one research method is ideal for all types of investigation and for all circumstance. While some investigations are best conducted by laboratory experiments, others require participant observation while some yet are more suitably conducted by interviews and questionnaire surveys.

Most researches conducted in librarianship adopt the survey research technique which is popular with social science research. Depending on the nature of a specific research, a combination of various research techniques could be employed to conduct a study. What matters at the end of research is not so much of what techniques have been adopted but how effective such a technique has been in eliciting the needed research data. If a researcher fails to adopt an appropriate research technique, the collected data will be unreliable and the outcome of the research, undependable.

3.2 Research Technique Adopted

The survey research method was adopted in this study. Library survey has been described by McDiamid (1940) as "the most careful and critical and actual analysis of library condition" Line (1982) posits that the survey is a recognized and accepted part of modern society. It is one of the means by which society keeps itself informed, a way

of bringing under control situations of increasing size and complexity, of obtaining perspectives and standards of comparison. The library survey, according to Line (1982), is interpreted as a systematic collection of data concerning libraries, their activities, operations, staff, use and users, at a given time or even a given period. Line further posits that:

"A study of a whole library and its operations is a survey; a study of the order routine in one library is not; a study of the order routines in several libraries is".

To this, one would add that the study of a condition, for example, library effectiveness in several libraries, is a survey.

A common element of surveys is measurement, and on this lies many of the difficulties. For instance, the measurement of attitudes is very complex. That users think the library satisfactory may be a fact, but it is a fact of quite a different order from the average number of books they borrow per annum. In the words of Line (1982):

"The statement, 'I am satisfied by the library' merely records the fact of the respondent's satisfaction; it does not on itself indicate that the library is an adequate library or that he is difficult to satisfy...."

Even if both these are true, the statement still does not tell what his level of expectation is or what standards of comparison he is using.

The present survey ascertains both kinds of fact. The output (encompassing quantity and quality) of Nigerian polytechnic libraries has been measured by the users' satisfaction. Babbie (1986) posits that it is only when facts pertaining to the quantity

and quality of library output are available that one can make judgement on adequacy.

There are 43 polytechnics and colleges of technology in Nigeria with numerous personnel, students and potential library users. Survey is an excellent instrument for measuring attitudes and orientations in a large population. Lyle (1967) believed that:

...the library survey has contributed substantially to the improvement of library service and the status of the profession. It has helped classify the purpose which librarians and libraries are trying to serve... What the library does, where it is going, and what means are appropriate to carry out its mission.

3.3 Study Population

At the time this research proposal was made and approved in the 1991/92 academic year, there were thirty-one polytechnics in Nigeria at various stages of accreditation by the NBTE for the award of the National Diploma (ND) and Higher National Diploma (HND). At present, there are forty-three polytechnics in Nigeria listed by the NBTE. A comprehensive list of polytechnics in Nigeria, their date of establishment, their owners, geographical location and postal addresses is given at the end of the work as appendix VII.

Though there are forty-three polytechnics in Nigeria, the study sample was drawn from the twenty seven polytechnics that have secured accreditation of many of their programmes by 1988. The list of the twenty-seven polytechnics which constitute the study population was also the most up-to-date at the NBTE by the time the present research proposal was approved. Attention is being focused on the twenty-seven accredited polytechnics because they are likely to have substantially developed their

library resources to meet accreditation requirements.

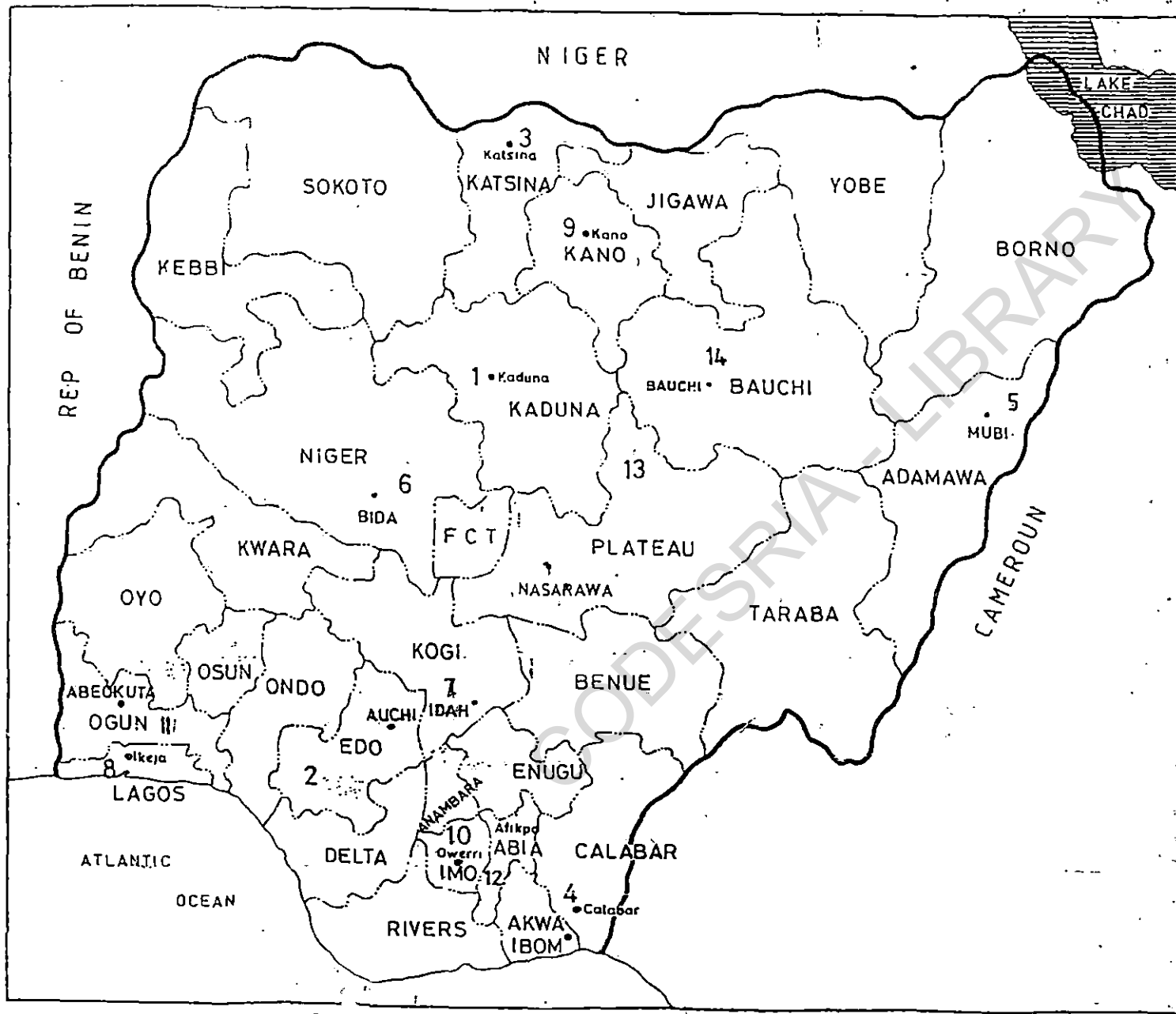
Fourteen out of the twenty-seven polytechnic libraries have been selected for the main study based on the criteria explained in Section 3.6:1. The sample constitutes 52% of the twenty-seven libraries. It is hoped that the finding of the study, based on the sample, *ceteris paribus*, will also apply if the whole polytechnic libraries in Nigeria were to be studied. After all, Cochrane (1963) avers that a sample population of 35 percent is appropriate and more than enough to enable generalization to be made about the entire population being studied. The locations of the polytechnic libraries in the study sample are shown in Figure 3.1.

At each of the fourteen polytechnics, ten percent of the user (prospective user) population, were surveyed, using a combination of quota sampling and stratified random sampling. The ten percent sample used in the study is very adequate considering the guidelines for determining sample size for research activities by Krejcie and Morgan (1970). The questionnaires were distributed equitably among staff and students in the various academic and non-academic departments of the polytechnics. Within each quota sample, respondents were chosen randomly. The chief executives of the fourteen libraries studied and all professional and para-professional staff were requested to respond to the other two questionnaires as already discussed.

The para-professional staff were included in the study because Ajibero (1992) has revealed that they play very important management roles in relatively small libraries like those of Nigerian polytechnics. They solely man many important service

points "and perhaps undertake the actual running of the libraries on a day-to-day basis."

CODESRIA - LIBRARY



| | |
|----|------------------------------------|
| 1 | Kaduna Polytechnic |
| 2 | Auchi Polytechnic |
| 3 | Katsina Polytechnic |
| 4 | The Polytechnic, Calabar |
| 5 | Federal Polytechnic Mubi |
| 6 | Federal Polytechnic Bida |
| 7 | Federal Polytechnic Idah |
| 8 | Lagos State Polytechnic, Isolo |
| 9 | Kano State Polytechnic |
| 10 | Federal Polytechnic, Nekede Owerri |
| 11 | Ogun State Polytechnic Abeokuta |
| 12 | Federal Polytechnic Afikpo |
| 13 | Federal Polytechnic Nasarawa |
| 14 | Federal Polytechnic Bauchi |

--- STATE BOUNDARY
 F.C.T. FEDERAL CAPITAL TERRITORY
 • STUDY AREA

0 100 200 Km.

STUDY AREA

3.3:1 Choice of the Polytechnics-Sample

The twenty-seven polytechnics (accredited by 1988), owned by either the federal or state governments are evenly distributed all over the country.

Out of these, 14 have been systematically selected for the study based on the following criteria:

1. Source of Funding
2. Age (1948-1983)
3. Geographical Spread

Having ranked the selection factors in order of priority, proportionate sampling of the polytechnic libraries (based on the three factors) was embarked upon. In determining the particular library to be included in the sample from a set of libraries of desired characteristic, random sampling technique was employed. Though each subgroup was numbered, no uniform sampling fraction, for example, sampling one fifth of the population, was applied. Instead, a sampling fraction most appropriate for each subgroup was used. This sampling method, while not being inconsistent, is considered most suitable to the work because the stratified samples of the total population of the polytechnics are of varying sizes based on the priority factors: the number of polytechnic established within each of the three period sub-divisions, the number owned by either the federal or state governments and the number that fall within each of the four designated geographical zones in Nigeria (South-East, South-West, Middle-Belt and North).

This random sampling technique makes it possible for members of the study population with varying characteristics that are important to the research to not only have balanced representation but also gives an equal chance to individual members of the population to be selected. In a situation where two out of thirteen members of a sub-group need to be selected, for example, it is appropriate to select one out of six by counting systematically. On the other hand, if one member of a sub-group, out of five needs to be selected it is appropriate to select the median. In other words, number 3 in the sub-group of five will be selected. Where one member out of a sub-group of six members needs to be selected, the choice becomes somewhat difficult. Statistically, the mode ought to be selected. Unfortunately, it is not possible to add up two polytechnics and take one-half of them for the study. In that case, a choice has been made by following alphabetical precedence out of the two members of a sub-group that constitute the mode.

3.3:2 Source of Funding/Ownership Criterion

Funding is considered to be central to all resource provisions, including personnel of the polytechnic libraries. Accordingly, six polytechnic libraries were randomly selected for study on the basis of source of funding. The source of funding, on the other hand, relates to ownership of the polytechnics. Those owned by the federal government are funded by the federal government while those belonging to the states are funded by the respective state governments that have established them.

An alphabetical list of Polytechnics in Nigeria according to how they are funded is provided in Table 3.1.

Table 3.1: *Alphabetical Listing of The Polytechnics According to How They are Funded*

| S/No. | Polytechnics Funded by The Federal Government | S/No. | Polytechnics Funded by The State Government |
|-------|---|-------|---|
| 1. | Akanu Ibiam Federal Polytechnic | 1. | Auchi Polytechnic |
| 2. | Federal Polytechnic, Ado-Ekiti | 2. | Benue State Polytechnic, Ugbokolo |
| 3. | Federal Polytechnic, Bauchi | 3. | Institute of Management and Technology (IMT), Enugu |
| 4. | Federal Polytechnic, Bida* | 4. | Kano State Polytechnic, Kano* |
| 5. | Federal Polytechnic, Idah | 5. | Katsina Polytechnic |
| 6. | Federal Polytechnic, Ilaro | 6. | Kwara State Polytechnic |
| 7. | Federal Polytechnic, Kaura-Namoda | 7. | Lagos State Polytechnic, Isolo |
| 8. | Federal Polytechnic, Mubi* | 8. | Ogun State Polytechnic, Abeokuta |
| 9. | Federal Polytechnic, Nasarawa | 9. | Ondo State Polytechnic |
| 10. | Federal Polytechnic, Oko | 10. | Plateau State Polytechnic, Barkin Ladi |
| 11. | Federal Polytechnic, Nekede | 11. | The Polytechnic, Ibadan |
| 12. | Kaduna Polytechnic* | 12. | The Polytechnic Calabar* |
| 13. | Yaba College of Technology | 13. | The Polytechnic of Sokoto State, Birnin Kebbi |
| | | 14. | Ramat Polytechnic, Maiduguri |

* **Polytechnics Selected for Study.**

A quota sample of six out of the fourteen polytechnics to be involved in the study was allocated to the source of funding/ownership criterion. This relatively high quota allocated to the criterion corresponds to the premium placed on funding in the study. Since the number of polytechnic libraries within the target institutions funded by the federal and state governments are almost at par (13 Vs 14), the quota of six was split between the two sub-sets.

The resulting choice of three polytechnic libraries from each of the two sub-sets was done by selecting the 4th out of every four polytechnics on each alphabetical list. Consequently, the following polytechnics were selected for inclusion in the study on the basis of source of funding:

1. Federal Polytechnic, Bida.
2. Federal Polytechnic, Mubi.
3. Kaduna Polytechnic.
4. Kano State Polytechnic.
5. Ogun State Polytechnic, Abeokuta
6. The Polytechnic, Calabar.

3.3:3 Age of The Polytechnics

The length of time in which a polytechnic library has been in existence, everything being equal, is likely to have impact on its provision of resources and

services for the benefit of users. For a fair generalisation to be made on the basis of the study population, therefore, it is necessary to stratify the polytechnics according to when they were established and to ensure an equitable representation of each sub-set. Three broad periods of establishment of the NBTE accredited Polytechnics in Nigeria (by 1988) are discernible:

1. 1948 - 1969
2. 1970s
3. 1980s

Tables 3.2, 3.3 and 3.4 give chronological lists of the polytechnics according to the broad historical divisions of their establishment. The lists exclude the six polytechnics that have already been selected for study on the basis of source of funding.

Table 3.2: *Polytechnics Established From 1948 to 1969*

| Polytechnic | Date Established |
|-------------------------------|------------------|
| 1. Yaba College of Technology | 1948 |
| 2. Auchu Polytechnic | 1964 |
| 3. IMT, Enugu | 1965 |

Table 3.3: Polytechnics Established in 1970s

| Polytechnic | Date Established |
|--------------------------------------|-------------------------|
| 1. The Polytechnic, Ibadan | 1971 |
| 2. Katsina Polytechnic | 1973 |
| 3. Ramat Polytechnic, Maiduguri | 1976 |
| 4. Benue State Polytechnic, Ugbokolo | 1976 |
| 5. Federal Polytechnic, Ado-Ekiti | 1977 |
| 6. Federal Polytechnic, Idah | 1977 |
| 7. Kwara State Polytechnic, Ilorin | 1977 |
| 8. Lagos State Polytechnic, Isolo | 1977 |
| 9. The Polytechnic of Sokoto State | 1977 |
| 10. Federal Polytechnic, Nekede | 1978 |
| 11. Plateau State Polytechnic | 1978 |
| 12. Federal Polytechnic, Bauchi | 1979 |
| 13. Federal Polytechnic, Ilaro | 1979 |

Table 3.4: *Polytechnics Established In The 1980s*

| Polytechnic | Date Established |
|--|-------------------------|
| 1. Ondo State Polytechnic, Owo | 1980 |
| 2. Federal Polytechnic, Oko | 1981 |
| 3. The Akanu Ibiam Federal Polytechnic. Uwana | 1981 |
| 4. Federal Polytechnic Kaura-Namoda | 1983 |
| 5. Federal Polytechnic, Nasarawa. | 1983 |

A quota of four out of the fourteen was allocated to the age criterion. More polytechnics were established in the 1970S than those established from 1948 - 1969 and in the 1980s put together. Consequently, two polytechnics established in the 1970s were selected to ensure equity within the sub-group. One polytechnic each was selected from the 1948 to 1969 and the 1980s brackets.

The first category (1948 to 1969) has three polytechnics. Auchu polytechnic,

the second polytechnic on the list and the median of the sub-set was selected for inclusion in the study.

The second category (1970s) has thirteen polytechnics out of which two needed to be selected. Since half of the total number is approximately six polytechnics, one out of every six polytechnics on the list was selected. The selected institutions are Federal Polytechnic Idah and Federal Polytechnic Bauchi.

The third category has five polytechnics. The Akanu Ibiam Federal Polytechnic, Umana Afikpo being the third on the list and the median of the sub-set was selected.

3.3:4 Geographical Spread

For the purpose of this work, the country has been divided into four distinct geographical zones-South-East, South West, Middle-Belt and the North. Many social sciences researches that are national in outlook, conducted in Nigeria in recent times, including the study by Ephraim (1995) have adopted this convenient geographical division.

The following are lists of the polytechnics according to geographical division. All the polytechnics already selected for inclusion in the study will not be listed at this point.

1. *Polytechnics in the South-East Zone*
 - i. IMT, Enugu
 - ii. Federal Polytechnic, Nekede

- iii. Federal Polytechnic, Oko
2. *Polytechnics in the South-West Zone*
- i. Federal Polytechnic, Ado-Ekiti
 - ii. Federal Polytechnic, Ilaro
 - iii. Lagos State Polytechnic, Isolo
 - iv. Ondo State Polytechnic, Owo
 - v. The Polytechnic, Ibadan
 - vi. Yaba College of Technology.
3. *Polytechnics Situated in The Middle-Belt*
- i. Benue State Polytechnic, Ugbokolo
 - ii. Federal Polytechnic, Nasarawa
 - iii. Kwara State Polytechnic, Ilorin
 - iv. Plateau State Polytechnic, Barkin-Ladi
4. *Polytechnics in the North-West Zone*
- i. Federal Polytechnic, Bauchi
 - ii. Federal Polytechnic, Kaura-Namoda
 - iii. Katsina Polytechnic
 - iv. Ramat Polytechnic, Maiduguri
 - v. The Polytechnic, Sokoto

A quota of four out of the fourteen polytechnics to be included in the study was allocated to geographical spread criterion. Since there are four zones in Nigeria one

polytechnic from each zone had to be selected for even representation.

Zone i. (South-East) has three polytechnics. The second polytechnic on the list was selected because it is the median of the sub-set. This is the Federal Polytechnic Nekede.

Zone ii. (South-West) has six polytechnics. Two members of the sub-set-Nos 3 and 4 on the list constitute the mode of the list. Since the polytechnics cannot be added like ordinary numbers and divided to derive the mode, the alphabetical order of choice was adopted for the selection. Thus, Lagos State Polytechnic was selected as it precedes Ondo State Polytechnic in the alphabetical sequence.

Zone iii (Middle-Belt) has four polytechnics out of which one needed to be selected. The alphabetical precedence of the two institutions that constitute the mode of the sub-set was adopted. Federal Polytechnic, Nasarawa was thus chosen instead of Kwara State Polytechnic that also falls within the mode.

Zone iv (North) has five polytechnics. The median of the sub-set was selected, and this is number 3 on the list-Katsina Polytechnic.

There are other possible ways of selecting the sample population for a work such as this. However, the method adopted is considered to be very straight-forward and free from any form of bias. The 14 polytechnics of which libraries have been selected for study are listed in Table 3.5.

Table 3.5 Polytechnics Selected For the Study

| S/N | Name of Polytechnic | Ownership | Year Est'd | Zone |
|-----|--|-----------|------------|-------------|
| 1. | Federal Polytechnic, Bida | Federal | 1977 | Middle-Belt |
| 2. | Federal Polytechnic, Mubi | Federal | 1979 | North |
| 3. | Kaduna Polytechnic | Federal | 160 | North |
| 4. | Kano State Polytechnic, Kano | State | 1978 | North |
| 5. | Ogun State Polytechnic, Abeokuta | State | 1978 | South-West |
| 6. | The Polytechnic, Calabar | State | 1973 | South-West |
| 7. | Auchi Polytechnic | State | 1964 | South-East |
| 8. | Federal Polytechnic, Idah | Federal | 1977 | Middle-Belt |
| 9. | Federal Polytechnic, Bauchi | Federal | 1979 | North |
| 10. | Akanu Ibiam Federal Polytechnic, Uwana-Afikpo | Federal | 1981 | South-East |
| 11. | Federal Polytechnic, Nekede | Federal | 1978 | South-East |
| 12. | Lagos State Polytechnic, Isolo | State | 1977 | South-West |
| 13. | Federal Polytechnic, Nasarawa | Federal | 1983 | Middle-Belt |
| 14. | Katsina Polytechnic | State | 1973 | North |

3.4 Instruments for Data Collection

The data collection instruments for the research are the questionnaire, interview, consultation of library documents and observation.

3.4.1 The Questionnaire

The primary data for this research was collected with the aid of three questionnaires. Bookstein (1989) posits that the questionnaire, despite its shortcomings, is a popular instrument of data collection in social sciences research. It is adjudged the best instrument for this data collection because of its suitability in gathering information from a very large population within the quickest possible time. This research covers 14 polytechnic libraries and over 6800 respondents in all.

Data collected through questionnaire include the user and library staff assessments of the polytechnic library's effectiveness, the frequency and purposes of users' visits to the library, the demographic information about the respondents, the levels of funding and staffing of the polytechnic libraries and other management information considered important in the study.

In all, three questionnaires were used in the data collection. Questionnaire I was answered by the library users and non-users. This instrument is similar to the ones used by Chweh (1981) and Fowowe (1989) in related studies. However, the modifications are considerable. The questionnaire contains 55 questions in all mainly requiring a tick (✓) on a Likert-type five-point scale. One is aware of the dangers of

a lengthy questionnaire, but the right questions have to be asked in research of this magnitude, involving several library performance markers. Babbie (1986) has stressed the need to spread questions out in a questionnaire.

On his own part, Line (1982) recommended that a researcher explores the possibility of repeating in whole or in part a questionnaire previously used for a similar survey to the one being contemplated. This is why the present researcher had to draw from the questionnaires previously used in related studies.

Questionnaire II was administered on all the professional and para-professional staff of the 14 polytechnic libraries surveyed. Section B of Questionnaire II, in order and content are a replica of Section B of Questionnaire I. This vital section contains the library performance markers on which the effectiveness of the libraries were assessed. Nwankwo (1984) advised that it is necessary in a questionnaire survey of this nature to ensure that all respondents are answering the same questions.

Questionnaire III was answered by the 14 polytechnic librarians to provide management information about the libraries surveyed. A good number of the questions in this questionnaire are open-ended to elicit original responses.

Details of Questionnaire I, Questionnaire II and Questionnaire III are provided in Appendices II, III and IV respectively.

The three questionnaires used in the study were pre-tested at The Polytechnic, Ibadan and the Federal Polytechnic, Oko. The libraries of these two polytechnics are not among those selected for the main study by criteria discussed in Section B.

3.4.2 Interviews

In the course of administering the questionnaires, the research student and his assistants conducted informal interviews with the Polytechnic librarians, other professional and para-professional library staff and some of the users. The informal interviews served as a check on the reliability of the data supplied in the questionnaires.

Furthermore, the informal interviews were useful in exploring some issues briefly raised in the questionnaires further. For example, the polytechnic librarians when interviewed gave a more detailed analysis of their operational problems, including efforts made at attracting more funds to the library. One of the polytechnic librarians in the south-west seriously complained of how her proposal to offer a compulsory credit hour course on 'use of the library' to polytechnic students was unilaterally rejected by the rector of the institution even when the Academic Board had endorsed it.

The informal interviews also revealed the special problems faced by the users of the polytechnic libraries in relation to their library's effectiveness. At the Lagos State Polytechnic, Isole, for example, some users complained of the noise of aircrafts overflying the polytechnic library while a few revealed that the library personnel hawk their wares in the library, thereby distracting serious users. On the whole, data collected through the interview method was qualitative and permitted the researcher to have indepth information on matters of interest to the study.

3.4.3 Consultation of Library Publications

Library documents like the library handbook, accessions list, annual reports and library rules and regulations were useful sources of information on polytechnic library objectives resources and services, users' library privileges, library fees and the historical background. Though a good number of the publications were not up to date, they did provide vital information about the libraries surveyed.

The effectiveness of the polytechnic library can be assessed only in relation to its objectives and these were found in the library documents.

3.4.4 Observation

In the course of the data collection, the research student and his assistants observed the libraries and their operations. The library facilities like readers' seats, reading space, toilets and book stacks. Observation was particularly useful in crosschecking the reliability of the data collected through the questionnaire and interviews. It was, for example, observed that non of the polytechnic libraries had a functional audio-visual unit despite claims to the contrary.

3.2:3 Pilot Study

To further determine the validity of the research instruments and efficacy of the overall research technique a pilot study was carried out. According to Nwankwo

(1984), it is very desirable to run a pilot test of any instrument for research and to revise the instrument on the basis of the results of the pilot study.

A pilot study in this research has assisted in factor analysis, item analysis, framing of items and removal of the "dull" or sensitive questions. It has also made it possible to observe the reactions of the subjects and to obtain information that have helped in planning for proper administration and analysis of the instruments.

The pilot study was conducted at The Polytechnic, Ibadan and the Federal Polytechnic, Oke. These polytechnics and their libraries were not eventually involved in the main study as they did not fall within the sample chosen by the criteria discussed in Section 3.6. The pilot study sample was made up of 100 users and 5 library staff from each of the two polytechnics.

A number of difficulties encountered during the pilot study were taken care of during the data collection proper. For instance, it was discovered that it was only a matter of chance for the head of the library to be present at the time of the researcher's visit. Once he was not present, no data collection of any description would be permitted within or outside the library. Even when the library chief executive was present, certain information sought, for example, library statistics, library funding for a three years period, and records of staff development programme were not readily available. The librarian, in order to complete the questionnaire needs sufficient time to consult relevant records, and this could take several days to accomplish. Under such a situation, the researcher would need to spend several days or even weeks in one

polytechnic alone. Moreover, some professional and para-professional library staff could be on leave at the time of the researcher's visit and so it would be impossible for them to participate in the study.

The pilot study also revealed that polytechnics and their libraries were afraid to give out information to research students so that such information may not be made available to the NBTE for accreditation purposes.

After considering the foregoing constraints of the pilot study, the necessity for sending the questionnaires by registered mail to the libraries ahead of the researcher's visit was established. One copy of Questionnaire I, eleven copies of Questionnaire II and two copies of Questionnaire III were sent. The head of the library was requested to complete Questionnaire II and Questionnaire III and request all professional and para-professional staff of the library to complete a copy each of Questionnaire II. Approval was also sought for the researcher to administer Questionnaire I within the polytechnic anytime he visited. All completed Questionnaires and the approval were to be kept with the Secretary of the Polytechnic Librarian who would pass them on to the researcher whenever he visited. Under normal circumstances the Secretary was expected to be in the library every working day. This arrangement thus removed the anxiety over whether or not the library chief executive will be present at the time of the researcher's visit. Because of the number of polytechnics involved in the study, their widespread locations and the political and economic crises prevalent in Nigeria at the period of the data collection, it was not feasible to inform the affected libraries

of the researcher's proposed date of visit ahead of time and keep to it. The academic calendars of tertiary institutions in the country were constantly disrupted.

To allay the fears of the would-be respondents over the information volunteered being used against their accreditation interests by the NBTE, the research supervisor was requested to write a special forwarding letter soliciting the cooperation of the librarians with the researcher and assuring the Polytechnic Librarians that all information volunteered will be used purely for academic purposes. The letter was written and sent with the questionnaires accordingly. This paid off as it contributed to 100% questionnaire response rate by the library chief executives and their personnel in most cases. The special letter of introduction by the researcher's supervisor is reproduced as Appendix I.

3.4.6 Reliability of Research Instruments

3.5 Questionnaire Administration and Response

Questionnaires II and III were mailed in advance of the researcher's visit to the affected polytechnic libraries for completion. Apart from the reasons already adduced for sending the questionnaires in advance, the action was also taken to ensure that the respondents had sufficient time to answer some of the questions that require reference to library documents. All questionnaires duly completed were collected during the follow up visit either personally by the researcher or by his research assistants.

In a few cases, fresh copies of the two questionnaires were issued to the head

of the polytechnic library and his staff because those earlier sent by post were not received. There were also occasions where additional copies of Questionnaire II were issued to the library staff to make up for the shortfall in the number sent by post.

Questionnaire I was administered by the researcher and locally recruited research assistants for each of the polytechnics visited. Each of the three main research assistants employed was also instructed to recruit local assistants in each polytechnic visited to distribute and retrieve the questionnaire among members of the polytechnic community, following the given guideline.

A survey research conducted in preparation for the data collection and the pilot study revealed that polytechnics and colleges of technology in Nigeria are more or less homogeneous in the courses they offer. From the numerous courses offered, the following broad disciplines are discernible:

- I. Agriculture and Engineering Technology
- II. Applied Sciences and Environmental Studies
- III. Business Studies
- IV. Education and Liberal Studies (including legal studies, library science and mass communication)

Out of these broad subject disciplines, Education and Liberal Studies has the highest students enrolment. This is closely followed by Business Studies. Applied Sciences and Environmental Studies and Agriculture and Engineering Technology have the least students enrolment in that order. To ensure a fair representation of opinions

from all concerned the questionnaire was equitably distributed to students and academic staff along the stated broad subject disciplines in each of the polytechnics surveyed.

The questionnaire distribution formula is presented in Table 3.6.

Table 3.6: Questionnaire I Distribution Formula

| S/No. | Respondents' Group | Percentage Allocation |
|--------------|---|------------------------------|
| 1. | Education and Liberal Studies | 35% |
| 2. | Business Studies | 30% |
| 3. | Applied Sciences, Physical Sciences and Environmental Studies | 20% |
| 4. | Agriculture and Engineering | 12% |
| 5. | Non-Academic Staff (General) | 3% |
| | Total | 100% |

This formula was subject to inevitable adjustment where the situation in a specific polytechnic demanded.

Details of the success recorded in the administration of Questionnaire I are given in Table 4.1. All copies of Questionnaire II and Questionnaire III distributed in all the polytechnics were completed and returned. The excess copies of Questionnaire II sent by post were returned during the visits.

In every polytechnic visited all the heads of the libraries, the library staff and members of the polytechnic community were very enthusiastic about the library performance assessment. While the library users and non users felt elated to have been

given an opportunity to assess the performance of their polytechnic's library, the library personnel were anxious to know the 'verdict handed down' by the users and non users on their libraries' performance.

Despite the fact that the purpose of the research was clearly stated on the three questionnaires used, many users and non users verbally expressed appreciation to the researcher and his assistants for coming to 'help them out' while the library authorities pleaded that the outcome of the research be made known to them.

CODESRIA - LIBRARY

3.6 Type of Data Required

Both quantitative and qualitative data are required for this investigation. Quantitative data relate mainly to the polytechnic librarians' finances, staffing, number of registered library users, the total population of staff and students (by inference, the population of users and potential library users) and the libraries' goals and objectives.

Qualitative data, on the other hand, relate to the satisfaction derived by users from the services and resources (human and material) provided by their libraries. In other words, how much of the user demands and expectations are met by the libraries' resources and services?

To obtain qualitative data, the Likert-type five-point scale has been used. The scale makes the data amenable to simple statistical analysis.

3.7 Period of Data Collection

Polytechnic libraries are academic libraries. As such, reliable data, especially on the users and non-users can best be collected when the polytechnics are in session. Recent socio-political developments in Nigeria make it very difficult to either ascertain or predict when the polytechnics will be in session. Their annual calendars that could serve as guide to someone who has research interest in the institutions, in the prevailing dispensation, were of limited usefulness. This was because of the disruptive effect of frequent strikes and forced closures of tertiary institutions in Nigeria on planned academic programmes.

Because of the political crisis which led to the prolonged closure of most higher institutions of learning in the country, the data collection for this research commenced in February 1994 could not be completed till January, 1995.

3. 8 Data Analysis Techniques

After a thoughtful study of the aims and objectives of this research, its hypotheses and the data collection instruments, the following major methods of statistical analyses were found to be most suitable for the work:

I. *T-Test Analysis*

T-test analysis was used to test the hypothesis 1 and hypothesis 2. In hypothesis 1, the t-test was used to test the difference in performance between the polytechnic libraries that are adequately staffed and those that are inadequately staffed. Similarly, the t-test was used to test the difference in performance ratings of the Nigerian polytechnic libraries by the users and by the library personnel. This test was to prove hypothesis 2.

Mathematically, the t-test is expressed as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\frac{\sqrt{[\frac{\sum X_1^2 - (\sum X_1)^2}{n_1} + \frac{\sum X_2^2 - (\sum X_2)^2}{n_2} - (\frac{\sum X - (\sum X)^2}{n})^2]}}{2}}$$

Where \bar{X}_1 = Mean of the first group

\bar{X}_2 = Mean of the second group

$\sum X_1^2$ = Sum of the squared scores from the first group

ΣX_2^2 = Sum of the squared scores from the second group

$(\Sigma X_1)^2$ = Square of the summation of scores from the first group

$(\Sigma X_2)^2$ = Square of the summation of scores from the second group

N_1 = Number of scores in the first group

N_2 = Number of scores in the second group

The t-test was chosen for this analysis because the researcher is interested in discovering and evaluating differences between pairs of performance scores of the adequately staffed libraries and the inadequately staffed ones (for hypothesis 1) and by the users and the library staff (for hypothesis 2) rather than the performance scores themselves.

The data analyses were carried out using the Statistical Analysis System (SAS) on a personal computer (PC).

II. *Correlation Analysis*

The Pearson correlation analysis was used to test the relationships between performance and other variables in the study-operational climate (OC), qualitative services (QS), tangible services (TS) and library collection (LC) in order to prove hypothesis 3.

The Pearson correlation coefficient,

$$r = \frac{\Sigma XY - n\bar{X}\bar{Y}}{\sqrt{[(\Sigma X^2 - n\bar{X}^2) \cdot (\Sigma Y^2 - n\bar{Y}^2)]}}$$

Where:

r = Pearson correlation coefficient and varies from +1 for perfect positive relationship to -1 for perfect negative relationship.

Y = Performance observations

X = Other variable(s) observations

\bar{X} = Mean values of observations

Σ = Summation over the observations

III. *Stepwise Multiple Regression Analysis*

This is expressed mathematically as:

$$Y = a + b_i X_i$$

Where:

Y = Performance index

b_i = Various coefficients to be estimated and tested

X_i = Various variables used in the analysis - operational climate, library collection, qualitative services and tangible services.

a = Constant term

The coefficient of determination (R^2) value resulting from the analysis was used to judge the level to which the variables (X_i) in the equation explained the observed variation in the dependent variable (Y). The tests of significance for the independent variable (X_i) in relation to the dependent variable was performed using correlation analysis to prove hypothesis 3. This was a further test of hypothesis 3. All the tests were performed at 0.05 level of significance, hence, rejection or acceptance.

IV. Analysis of Variance (ANOVA) Test

Analysis of variance is a process whereby the total variation of a set of data is split into meaningful components that measure different variation from different sources. It involves the partitioning of the total sum of squares.

Analysis of variance (ANOVA) was used to test the differences in performance between the polytechnics that are adequately staffed and those that are inadequately staffed. This test was necessary to prove hypothesis I.

Analysis of Variance Table (One-way)

| Source of Variation | Degree of freedom | Sum of Squares | Mean sum of squares | F-calc |
|---------------------|-------------------|----------------|---------------------|----------------|
| N | $n-1$ | SSN | $MSN = SSN/n-1$ | $MSN/MSE = FN$ |
| ERROR | $n(t-1)$ | SSE | MSE | |
| TOTAL | $n-1$ | SST | MST | |

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents, analyses and interpretes the research data. The results of the study are discussed and related to the hypotheses and research questions designed to achieve the objectives of the study.

4.2 Data Presentation

In the data presentation, effort was made to display all quantifiable data in tables and charts. The data relating to the research questions are presented in section 4.3 to answer the questions while those pertaining to the research hypotheses are presented in section 4.4 to prove the hypotheses.

The response rates to the three questionnaires are very encouraging. All the 14 copies of Questionnaire III distributed were answered and returned by the polytechnic librarians and so were all the 97 copies of Questionnaires II administered on the professional and para-professional staff of the polytechnic libraries surveyed. This gives a 100% response rate for both instruments. On the other hand, the response rate to Questionnaire, the principal instrument of the data collection is 89.3%.

Details of the mode of distribution and response rate to Questionnaire I are provided in Table 4.1.

Table 4.1: Distribution pattern and Response to Questionnaire I

| S/No | Name of Institution | Number Distributed | Number Completed & Returned | Number Invalidated | No. Of Non-Users | Percentage Response |
|------|---|--------------------|-----------------------------|--------------------|------------------|---------------------|
| 1. | Akanu Ibiam Federal Polytechnic, Uwana-Afikpo | 420 | 365 | 20 | 7 | 87% |
| 2. | Auchi Polytechnic | 580 | 526 | 41 | 16 | 90.7% |
| 3. | Federal Polytechnic, Bauchi | 370 | 358 | 8 | 4 | 96.7% |
| 4. | Federal Polytechnic, Bida | 600 | 528 | 42 | 24 | 87.7% |
| 5. | Federal Polytechnic, Idah | 490 | 384 | 14 | 11 | 92.5% |
| 6. | Federal Polytechnic, Nasarawa | 490 | 436 | 26 | 12 | 89% |
| 7. | Federal Polytechnic, Nekede | 620 | 566 | 13 | 10 | 91.3% |
| 8. | Kaduna Polytechnic | 1,500 | 1,105 | 68 | 42 | 73% |
| 9. | Kano State Polytechnic, Kano | 500 | 464 | 28 | 14 | 93% |
| 10. | Katsina Polytechnic | 396 | 370 | 20 | 15 | 93% |
| 11. | Lagos State Polytechnic, Isolo | 567 | 496 | 16 | 18 | 87.4% |
| 12. | Ogun State Polytechnic, Abeokuta | 440 | 428 | 18 | 6 | 97% |
| 13. | The Polytechnic, Calabar | 700 | 610 | 36 | 14 | 87.1% |
| 14. | Federal Polytechnic, Mubi | 560 | 472 | 42 | 17 | 84.2% |

Average response rate = 89.3%

4.2:1 Mode of Data Presentation

To present the research data, the following steps were taken:

- (i) A coding plan format was designed;
- (ii) From the plan, responses were extracted and coded into a coding sheet;
- (iii) Information was entered into a computer, using database management programme (DBASE);
- (iv) Initial data organisation involved validation for completeness and conformity with set objectives. This was carried out manually with the original coding sheet and later, by running frequency distribution and cross-tabulation for each of the variables, using Statistical Analysis System (SAS). Appropriate corrections were made on the data when necessary.

Subsequently, the data management involved the grouping of the variables into their respective classes. Based on the subject of each question asked in Section B of questionnaires I and II, the variables were classified into four major groups - Operational Climate (OC), Quantitative Services (QS), Tangible Services (TS) and Library Collection (LC).

These groups constituted the indices used to assess the performance of the polytechnic libraries. The overall performance of each library was assessed by a summation of these indices. The performance indices and the specific variables that make up the indices are specified in Section 4.2:2.

4.2:2 Grouping of Questions in Section B of Questionnaires I & II

All the questions in Section B of both Questionnaire I and Questionnaire II are the same. Question 48 is all-encompassing and so a single performance measure. The rest of the questions (47 in all) have been categorised into four groups for the convenience of analysis. This categorization, though not physically manifested on the questionnaires, is as follows:

1. Operational Climate (OC): 1, 6, 7, 9, 10, 13, 14, 16, 17, 18, 21, 24, 25, 29, 31, 33, 34, 37, 40, 41, 43, 46, 47.
2. Qualitative Services (QS): 2, 4, 5, 11, 19, 20, 35.
3. Tangible Services (TS): 15, 22, 30, 35, 36, 38, 45.
4. Library Collection (LC): 3, 8, 12, 23, 26, 27, 28, 32, 39, 42, 44.

4.2:3 Quantification of Library Personnel Data

Data collected about the professional and para-professional staff of the polytechnic libraries are quantitative and qualitative. In the process of data presentation, all qualitative data (e.g., quality of library personnel, which in this work was measured by qualification(s) and experience) have been quantified for easy analysis. Accordingly, the number of professional and para-professional staff of the library, qualification(s) and experience of the personnel and the number of in-service training programmes (e.g., short courses, seminars, workshops and conferences) which they have attended within a given period have been rated on four different scales (1-5

in each case).

The values attached to the various levels of staffing, staff qualifications, experience and in-service training closely relate to the Federal Ministry of Education (1989) guidelines on appointments and promotion of library staff in polytechnics and related colleges in Nigeria. The values are derived following a library personnel Rating Scale (LPRS) devised for the research as provided in Tables 4.2.1, 4.2.2, 4.2.3 and 4.2.4.

Table 4.2.1: Weighted Scores for Number of the Nigerian Polytechnic Library Personnel

| No. of Professional Staff | Score | No. of Para-professional Staff | Score |
|---------------------------|-------|--------------------------------|-------|
| 10 and above | 10 | 10 and above | 10 |
| 9 | 9 | 9 | 9 |
| 8 | 8 | 8 | 8 |
| 7 | 7 | 7 | 7 |
| 6 | 6 | 6 | 6 |
| 5 | 5 | 5 | 5 |
| 4 | 4 | 4 | 4 |
| 3 | 3 | 3 | 3 |
| 2 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 |

Table 4.2.2: Weighted Scores for Qualification(s) of Library Personnel

| S/NO. | Qualification(s) | Score |
|-------|--|-------|
| 1. | First degree in a discipline + Master's degree (MLS) and above in librarianship | 5 |
| 2. | First degree in librarianship (BLS, B.Sc. B.A.) + Master's degree (MLS) and above. | 4 |
| 3. | First degree (non librarianship) + Post-graduate diploma in librarianship/BLS | 3 |
| 4. | HND Library Studies | 2 |
| 5. | Diploma Librarianship/National Diploma (ND or OND), Library Science | 1 |

Table 4.2.3: Weighted Scores for Professional Experience of Library Personnel

| S/NO. | Work Experience | Score |
|-------|-------------------|-------|
| 7 | i. Over 20 years | 7 |
| 6 | ii. 16-20 years | 6 |
| 5 | iii. 11-15 years | 5 |
| 4 | iv. 6-10 years | 4 |
| 3 | v. 3-5 years | 3 |
| 2 | vi. 1-2 years | 2 |
| 1 | vii. Below 1 year | 1 |

Table 4.2.4: Weighted Scores of Staff Development Record of Library Personnel

| S/NO. | Qualification(s) | Score |
|-------|--|------------------|
| 1. | Study leave for post-graduate studies in librarianship | 5 |
| 2. | Study leave for first degree in librarianship | 4 |
| 3. | Study leave for diploma in librarianship | 3 |
| 4. | Attendance of Short courses | 2 |
| 5. | Attendance of Seminars/workshops/conferences | 1 per attendance |

4.3 Answering Research Questions

The research questions of the study are hereby answered.

4.3:1 Research Question 1

How well are polytechnic libraries in Nigeria patronised?

To answer the foregoing question, members of the polytechnic community were asked in a questionnaire to indicate how frequently they visited their polytechnic's library. No doubt, the frequency of library visits is a good indicator of the amount of importance attached to the polytechnic library by its users.

The responses to this question in each of the 14 polytechnics studied are presented in Table 4.3.1 and Figure 4.3.1.

CODESRIA - LIBRARY

Table 4.3.1: Frequency of User's Visits to Polytechnic libraries in Nigeria

| | LID. | DAILY | A FEW DAYS A WEEK | WEEKLY | FORTNIGHTLY | A FEW DAYS IN A MONTH | ABOUT 4 TIMES A YEAR | WHENEVER THE NEED ARISES | OCCASIONALLY | ONLY AT EXAM PER | CUMM. FREQ. AND % |
|----|------|-------------|-------------------|-------------|-------------|-----------------------|----------------------|--------------------------|--------------|------------------|-------------------|
| 1 | FPIL | 125 34.8 | 131 36.5 | 31 8.6 | 20 5.6 | 11 3.1 | 14 3.9 | 27 7.5 | - | - | 359 100 |
| 2 | IKL | 432 43.4 | 303 30.5 | 184 18.5 | 56 5.6 | 20 2.0 | - | - | - | - | 995 100 |
| 3 | PCL | 202 36.1 | 208 37.1 | 55 9.8 | 5 0.9 | 65 11.6 | 10 1.8 | 15 2.7 | - | - | 560 100 |
| 4 | SAML | 95 23.5 | 148 36.6 | 25 6.2 | 27 6.7 | 62 15.3 | 4 1.0 | 23 5.7 | - | 20 5.0 | 404 100 |
| 5 | AFPL | 62 18.3 | 81 24.0 | 45 13.3 | 49 14.5 | 18 5.3 | 32 9.5 | 20 5.9 | 2 0.6 | 29 8.6 | 338 100 |
| 6 | FPNL | 125 30.3 | 153 37.0 | 61 14.8 | 19 4.6 | 4 1.0 | 8 1.9 | 8 1.9 | 23 5.6 | 12 2.9 | 413 100 |
| 7 | KSPL | 132 29.3 | 172 38.2 | 41 9.1 | 26 5.8 | 17 3.8 | 25 5.6 | 37 8.2 | - | - | 450 100 |
| 8 | KPL | 152 45.4 | 130 38.8 | 11 3.3 | 3 0.9 | 27 8.1 | 8 2.4 | 4 1.2 | - | - | 335 100 |
| 9 | MWL | 131 37.9 | 91 26.3 | 61 17.6 | 29 8.4 | 10 2.9 | 9 2.6 | 3 0.9 | 3 0.9 | 9 2.6 | 346 100 |
| 10 | FPOL | 152 28.0 | 164 30.2 | 104 19.2 | 51 9.4 | 15 2.8 | 31 5.7 | 11 2.0 | 10 1.8 | 5 0.9 | 543 100 |
| 11 | APL | 102 27.6 | 92 24.9 | 60 16.3 | 43 11.7 | 12 3.3 | 12 3.3 | 12 3.3 | 12 3.3 | 24 6.5 | 369 100 |
| 12 | FPNL | 182 39.6 | 172 37.4 | 73 15.9 | 20 4.3 | - | 13 2.8 | - | - | - | 460 100 |
| 13 | FPNL | 110 27.6 | 134 33.7 | 45 11.3 | 43 10.8 | 22 5.5 | 21 5.3 | 12 3.0 | 7 1.8 | 4 1.0 | 398 100 |
| 14 | LSPL | 186 41.9 | 110 24.8 | 41 9.2 | 19 4.3 | 37 8.3 | 8 1.8 | 43 9.7 | - | - | 444 100 |

For a given library: Upper row - Number of respondents; Lower row - Percentage of the total number of respondents.

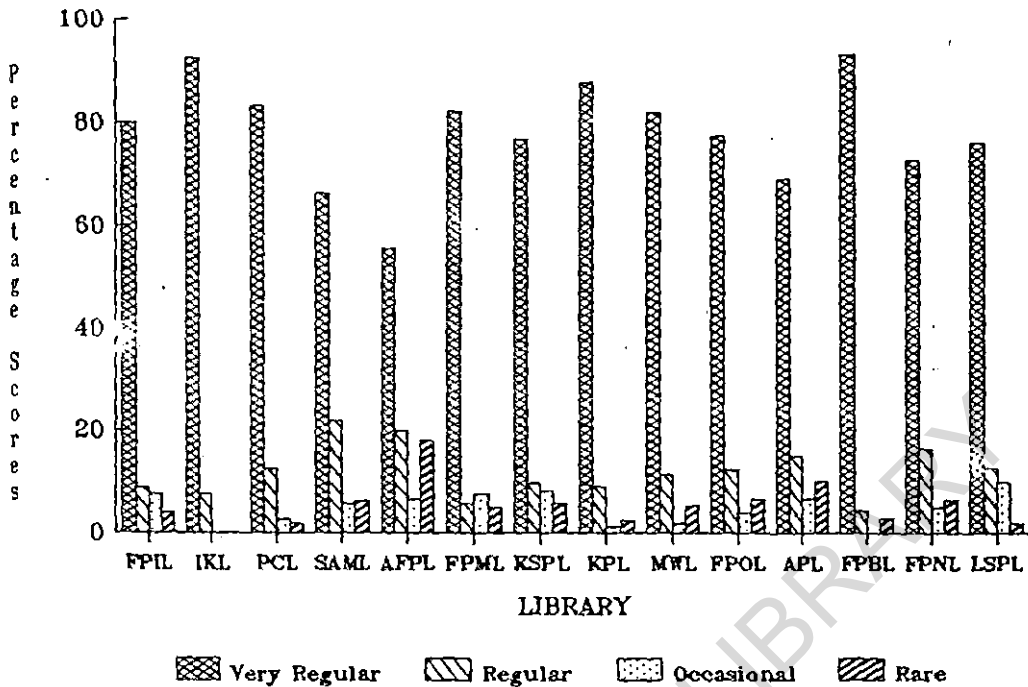


Figure 4.3.1.:

Bar Chart Showing Frequency of Users' Visits to Polytechnic Libraries in Nigeria.

It is evident from Table 4.3.1 and Figure 4.3.1 that the polytechnic communities use their libraries intensively. The number of respondents that use the library daily range from 18.3% (AFPL) to 45.4% (KPL). The percentage of respondents that visit the library either a few days in a week or weekly is also significantly high in all the polytechnics.

On the other hand, the percentage of non regular users is very low in all the polytechnics. For instance, in seven out of the fourteen libraries surveyed, no respondent admitted using the library only at examination periods. Even in the libraries where some respondents admitted using the library only at examination periods, the percentage of such users is very low, ranging from 0.9 (FPOL) to 6.5 (APL). This finding is contrary to the widely held belief that most students of Nigerian tertiary institutions visit the library only during examination periods. Perhaps, human traffic is high in academic libraries in the country during examinations because many people need to use the library resources simultaneously. The researcher, for example, observed that most of the polytechnics lacked adequate hostel facilities (if at all) and had shortage of classrooms and reading rooms.

As a result of the general shortage of accommodation in the nation's polytechnics, there is increasing pressure on the libraries. No wonder, a Nigerian polytechnic librarian, Chukwu (1988) lamented that "...our library facilities are being overused and over-stretched to a point of disrepair."

Evidence from the research therefore, is that polytechnic libraries in Nigeria are

highly patronised. This makes it imperative for appropriate measures to be taken to satisfy the user needs.

4.3:2 Research Question 2

Why do members of the polytechnic community visit their library?

To answer the question, the respondents were requested to indicate the purposes of their visiting the polytechnic library. They were given a wide range of options to choose from - to borrow books, to read newspapers and magazines, to consult professional journals, to read own textbooks and notes, to do class assignment and do research. While some visited the library for a single purpose, others visited the library for a combination of reasons.

The reasons for users' visits to the polytechnic libraries have, for convenience of analysis been coded A -W and presented in Table 4.3.2.

Table 4.3.2: Purposes of Users' Visits to Nigerian Polytechnic Libraries

| | LIBRARY | | | | | | |
|---|-----------|------------|-----------|------------|-----------|-----------|-----------|
| | FPIL | IKL | PCL | SAML | AFPL | FPML | KSPL |
| A | 20 (5.6) | 38 (3.8) | 15 (2.7) | 11 (2.7) | 19 (5.6) | 27 (6.5) | 4 (0.9) |
| B | 4 (1.1) | 56 (5.6) | 38 (6.8) | 23 (5.7) | 41 (12.1) | 53 (12.8) | 13 (2.9) |
| C | 17 (4.7) | 132 (13.3) | 16 (2.9) | 34 (8.4) | 32 (9.5) | 39 (9.4) | 22 (4.9) |
| D | 10 (2.8) | 95 (9.5) | 66 (11.8) | 57 (14.1) | 48 (14.2) | 82 (19.9) | 5 (1.1) |
| E | 40 (11.1) | 117 (11.8) | 32 (5.7) | 16 (4.0) | 32 (9.5) | 14 (3.4) | 38 (8.4) |
| F | 6 (1.7) | 137 (13.8) | - | 15 (3.7) | 39 (11.5) | 35 (8.5) | 8 (1.8) |
| G | 18 (5.0) | 9 (0.9) | 33 (5.9) | 6 (1.5) | 26 (7.7) | 31 (7.5) | 16 (3.6) |
| H | 18 (5.0) | 118 (11.9) | 38 (6.8) | 20 (5.0) | 16 (4.7) | 32 (7.7) | 9 (2.0) |
| I | 16 (4.5) | 135 (13.6) | 22 (3.9) | 15 (3.7) | 28 (8.3) | 36 (8.7) | 4 (0.9) |
| J | 11 (3.1) | 9 (0.9) | 88 (15.7) | 7 (1.7) | 6 (1.8) | - | 24 (5.3) |
| K | 63 (17.5) | 37 (3.7) | 11 (2.0) | 14 (3.5) | 7 (2.1) | 12 (2.9) | 130(28.9) |
| L | 13 (3.6) | 9 (0.9) | 50 (8.9) | 12 (3.0) | 9 (2.7) | 12 (2.9) | 21 (4.7) |
| M | 28 (7.8) | 19 (1.9) | 57 (10.2) | 19 (4.7) | 3 (0.9) | - | 4 (0.9) |
| N | 51 (14.2) | 18 (1.8) | 58 (10.4) | 109 (27.0) | 3 (0.9) | 8 (1.9) | 102(22.7) |
| O | 7 (1.9) | 20 (2.0) | 5 (0.9) | - | 13 (3.8) | 8 (1.9) | 10 (2.2) |
| P | - | 9 (0.9) | 5 (0.9) | - | 3 (0.9) | 4 (1.0) | - |
| Q | - | 28 (2.8) | - | - | 4 (1.2) | 12 (2.9) | 4 (0.9) |
| R | - | - | - | - | - | - | - |
| S | 3 (0.8) | - | 16 (2.9) | - | - | - | - |
| T | 4 (1.1) | - | - | - | - | - | - |
| U | - | - | 5 (0.9) | 19 (4.7) | 3 (0.9) | - | 12 (2.7) |
| V | 16 (4.5) | - | 5 (0.9) | 24 (5.9) | 3 (0.9) | 4 (1.0) | 16 (3.6) |
| W | 14 (3.9) | 9 (0.9) | - | 3 (0.7) | 3 (0.9) | 4 (1.0) | 8 (1.8) |
| X | 359 (100) | 995 (100) | 560 (100) | 404 (100) | 338 (100) | 413 (100) | 450 (100) |

KEY

| | |
|--------------------------------------|--|
| A = To Borrow Books | M = B,C,D,E |
| B = To read newspapers and Magazines | N = D,E |
| C = To Consult Professional Journals | O = A,D,E |
| D = To read own Textbooks and Notes | P = A,B,C,D,E,F |
| E = To do Class Assignment | Q = D,F |
| F = For Research | R = A,B,C |
| G = A,B | S = C,D |
| H = B,C | T = A,C,D,E |
| I = A,C,D | U = To read library textbooks |
| J = A,B,C,D,E | V = To prepare lecture notes |
| K = A,B,D,E | W = To discuss with friends |
| L = B,D,E | X = Cumulative Frequency and Percentage. |

Values in parenthesis are percentage of the total number of respondents.

Table 4.3.2 cont'd

| | LIBRARY | | | | | | |
|---|-----------|-----------|------------|-----------|-----------|-----------|-----------|
| | KPL | MWL | FPOL | APL | FPBL | FPNL | LSPL |
| A | 4 (1.2) | 27 (7.8) | 36 (6.6) | 29 (7.9) | 30 (6.5) | 24 (6.0) | 23 (5.2) |
| B | 6 (1.8) | 31 (9.0) | 42 (7.7) | 56 (15.2) | 64 (13.9) | 34 (8.5) | 12 (2.7) |
| C | 9 (2.7) | 23 (6.6) | 52 (9.6) | 31 (8.4) | 46 (10.0) | 32 (8.0) | 8 (1.8) |
| D | 56 (16.7) | 75 (21.7) | 103 (19.0) | 74 (20.1) | 77 (16.7) | 62 (15.6) | 28 (6.3) |
| E | 11 (3.3) | 19 (5.5) | 25 (4.6) | 23 (6.2) | 44 (9.6) | 31 (7.8) | 83 (18.7) |
| F | - | 35 (10.1) | 66 (12.2) | 33 (8.9) | 42 (9.1) | 48 (12.1) | 47 (10.6) |
| G | 11 (3.3) | 19 (5.5) | 52 (9.6) | 35 (9.5) | 34 (7.4) | 27 (6.8) | 17 (3.8) |
| H | 7 (2.1) | 34 (9.8) | 32 (5.9) | 21 (5.7) | 36 (7.8) | 48 (12.1) | - |
| I | 8 (2.4) | 31 (9.0) | 46 (8.5) | 15 (4.1) | 36 (7.8) | 31 (7.8) | 12 (2.7) |
| J | 85 (25.4) | 15 (4.3) | 16 (2.9) | 6 (1.6) | 8 (1.7) | 15 (3.8) | 13 (2.9) |
| K | 54 (16.1) | - | 16 (2.9) | 7 (1.9) | 4 (0.9) | 8 (2.1) | 18 (4.1) |
| L | 16 (4.8) | 6 (1.7) | - | 3 (0.8) | 5 (1.1) | 4 (1.0) | 20 (4.5) |
| M | 12 (3.6) | - | 10 (1.8) | 6 (1.6) | - | 7 (1.8) | 9 (2.0) |
| N | 40 (11.9) | - | 16 (2.9) | 3 (0.8) | 13 (3.8) | 16 (4.0) | 16 (3.6) |
| O | - | 4 (1.2) | 10 (1.8) | 7 (1.9) | - | 4 (1.0) | 45 (10.1) |
| P | 4 (1.2) | 7 (2.0) | 6 (1.1) | 4 (1.1) | 8 (1.7) | - | 8 (1.8) |
| Q | - | - | 10 (1.8) | 3 (0.8) | 8 (1.7) | 3 (0.8) | - |
| R | - | - | - | - | - | - | - |
| S | - | 7 (2.0) | 5 (0.9) | - | - | 4 (1.0) | 4 (0.9) |
| T | - | - | - | - | - | - | 24 (5.4) |
| U | - | 4 (1.2) | - | 3 (0.8) | - | - | 37 (8.3) |
| V | 3 (0.9) | 6 (1.7) | - | 7 (1.9) | 5 (1.1) | - | 12 (2.7) |
| W | 9 (2.7) | 9 (0.9) | - | 3 (0.8) | - | - | 8 (1.8) |
| X | 335 (100) | 346 (100) | 543 (100) | 369 (100) | 460 (100) | 398 (100) | 444 (100) |

KEY

A = To Borrow Books
 B = To read newspapers and Magazines
 C = To Consult Professional Journals
 D = To read own Textbooks and Notes
 E = To do Class Assignment
 F = For Research
 G = A,B
 H = B,C
 I = A,C,D
 J = A,B,C,D,E
 K = A,B,D,E
 L = B,D,E

M = B,C,D,E
 N = D,E
 O = A,D,E
 P = A,B,C,D,E,F
 Q = D,F
 R = A,B,C
 S = C,D
 T = A,C,D,E
 U = To read library textbooks
 V = To prepare lecture notes
 W = To discuss with friends
 X = Cumulative Frequency and Percentage.

Values in parenthesis are percentage of the total number of respondents.

Members of the Nigerian polytechnic community have diverse purposes for visiting their library as presented in Table 4.3.2.

The table reveals that majority (over 50%) of the respondents in each polytechnic visit the library for one or a combination of the following reasons: to borrow books, to read newspapers and general news magazines, to consult professional journals, to read their own textbooks and notes, to do class assignment and for research. The most popular of the reasons for library visits is to read own textbooks and notes. This purpose accounts for about 19 percent of the visits in some of the libraries (FPML, MWL, FPOL and APL). It also constitutes over 10 percent of the visits in several other libraries including KPL (16.7%), FPBL (16.7%), FPNL (15.6%), AFPL (14.2%) and SAML (14.1%).

A considerable number of the respondents (7%, on the average) visit the library "for research." It was discovered in the course of the data collection that the research done in polytechnic libraries was mainly by students who were either doing class assignments or writing their final year projects and long essays. The academic staff of the polytechnics complained that they lack confidence in their library for doing research. Instead, they tend to rely more on their personal collections. Ojo (1987) has attributed this phenomenon to lack of new books in the lecturers' fields of interest and lack of current journals.

Only a very small proportion of the respondents visit the library to borrow books (5%, on the average). This is because the libraries lack most of the textbooks needed by users while many of the available ones are outdated.

In one of the libraries (SAML) book loans were permitted only to the academic and senior administrative staff of the polytechnic while the students who constitute 96% of the users were denied this privilege. Denying students of borrowing privileges, for whatever reason could breed user frustration and mass stealing of library books. The student users of SAML complained very bitterly to the researcher over their deprivation and requested the researcher to intervene on their behalf.

According to Chukwu (1988), stocking academic libraries with books and allowing for a full utilization of the resources becomes even most appropriate at the present time in Nigeria when neither the lecturer nor the student is financially strong to buy his own reading materials in the face of hyper-inflation. These people eventually fall back on the library almost entirely to provide them with literature support.

4.3:3 Research Question 3

Why do some members of the polytechnic community not use the polytechnic library?

In answering this question, the researcher felt the need to establish who does not use the polytechnic library and why he does not. A breakdown of the categories of non-users in each polytechnic is given in Table 4.3.3.

Table 4.3.3: The Non-Users of Polytechnic Libraries

| LIBRARY | NON - USERS | | |
|---------|-------------|----------------|--------------------|
| | STUDENTS | ACADEMIC STAFF | NON ACADEMIC STAFF |
| 1 FPIL | 22 | 2 | 6 |
| 2 IKL | 9 | 4 | 10 |
| 3 PCL | 7 | 2 | 8 |
| 4 SAML | 10 | 2 | 5 |
| 5 AFPL | 15 | 5 | 7 |
| 6 FPML | 6 | - | 10 |
| 7 KSPL | 5 | 4 | 7 |
| 8 KPL | 9 | 5 | 8 |
| 9 MWL | 2 | 1 | 7 |
| 10 FPOL | 1 | 2 | 6 |
| 11 APL | 6 | 3 | 9 |
| 12 FPBL | 3 | 1 | 6 |
| 13 FPNL | 4 | 2 | 12 |
| 14 LSPL | 2 | 1 | 8 |
| Total | 105 | 34 | 71 |

The foregoing table shows that there are non library users among students, academic staff and non-academic staff of Nigerian polytechnics. The number of non-users for the three groups is quite high, 210 respondents on the whole. Since the purpose of the polytechnic library is to provide literature support to the attainment of

departmental collections are pre-requisite for NBTE accreditation of the ND and HND programmes.

In most of the polytechnics where the departmental collections exist, the central library neither acquired the materials for the departments nor does it have a record of them. The materials are acquired by the Head of Department in whose custody they are kept. However, the expenditure on departmental collections is debited to the polytechnic library account.

Chukwu (1988) reports that, apparently in a bid to ensure that the library is made to play its rightful role in the polytechnic, the NBTE stipulates inter alia that there shall be evidence that:

1. the institution has a good library either centrally located and or/with disciplinary departmental sub-libraries distributed throughout the institution;
2. there is a librarian and other library staff in quality and adequate number to service the central library and branches where they exist;
3. there is adequate annual budgetary allocation of books, periodicals and other instructional materials, and for salaries of library staff...

There is nothing in the foregoing NBTE provisions that suggests that academic departments of the polytechnic should keep independent libraries or book collections. The emphasis is on a strong central library or discipline based libraries controlled by the centre which also staffs them. Unfortunately, both the NBTE accreditation teams for individual academic programmes and the heads of departments and the polytechnic

authorities have tended to misinterpret the clause on departmental libraries. And this has brought about unnecessary fragmentation of library materials in the polytechnic, thereby dampening the enthusiasm of faculty and students to use the central library. For instance, one of the respondents to the user questionnaire, an NCE II Technical Education student of the Polytechnic, Calabar gives her reason for not using the central library thus: "We have our departmental library which caters for our textbooks."

Unknown to this respondent is that interdisciplinary studies have made it difficult for a textbook to be useful only to people doing a particular course. In other words, there could be textbooks in the central library, for example, on technical drawing which though was not specially acquired for people concerned with technical education, would nevertheless be useful to them. By failing to use the central library, therefore, a student or staff loses the benefits of consulting otherwise very useful interdisciplinary texts.

Another factor contributing to non library use is the early closure of the polytechnic library. Some of the respondents complained that they are occupied with lectures and practicals all through the period the library is open. By the time they are free to use the library later in the evening, it would have closed for the day. One of the non library users, an ND I student of secretarial studies at the Akanu-Ibiam Federal Polytechnic Uwana had this to say:

"My lecture schedule for a day is almost equivalent to that of the library's opening and closing time. So, it makes going there (visiting the library) difficult".

It was discovered in the course of the research that most of the polytechnic libraries close before 8.00p.m. on week days and by 12 noon on Saturdays. The libraries remained closed on Sundays. The reasons for this early closure are not far fetched: Firstly, the libraries lack sufficient number of staff to run shifts. Secondly, the polytechnic has no accommodation for library staff on campus. It also provides no stand-by vehicles conveying library staff on night shift back to their homes off campus at late hours when public transport cannot be found. The only option left for the library in such a situation is to close early so that staff can find public transport to their distant homes, off campus. And this, in a good number of cases could be about five kilometres away.

If the polytechnic library had the resources to warrant its being open to users till 10.00p.m., many more prospective users could have had the opportunity to use the library.

The second category of non library users are administrative staff, especially of the senior cadre. Some members of this group feel that the library is irrelevant to their work in the polytechnic while others complain of very busy schedules that leave them with no time at all to use the library.

Certainly, the academic library has a role to play in the life of every member of the community who wants to progress. Apart from using the library in professional self development, vital information on employment opportunities locally and overseas, professional meetings, scholarships, international affairs, etc could be obtained from

the library with ease. Those administrative executives who claim they are too busy to use the library are perhaps ignorant of what it can do for them. This group needs both selective dissemination of information (SDI) and outreach.

It is the senior administrative staff who often take decisions that can positively or negatively affect any organ of the polytechnic, including the library. These may not see the need to support library programmes and budgets unless they are turned into library users. The onus therefore lies on the library to carry the user awareness campaign to "the powers that be" in the overall interest of library services in the polytechnic.

4.3:4 Research Question 4

What is the size of the polytechnic libraries' collection?

To answer the foregoing research question, information was sought through Questionnaire III on the size of the polytechnic libraries' collection. The finding is presented in Table 4.3.4.

Table 4.3.4: Nigerian Polytechnic Library Collection Size

| | LIBRARY | BOOK VOL. | SERIALS TITLES | A-V UNITS |
|----|---------|-----------|-------------------|--------------|
| 1 | FPIL | 12,000 | 42 | -- |
| 2 | IKL | 60,000 | 120 | -- |
| 3 | PCL | 25,000 | 50 | -- |
| 4 | SAML | 20,000 | 200 | -- |
| 5 | AFPL | 2,015 | 30 | -- |
| 6 | FPML | 12,817 | 200 Vols | -- |
| 7 | KSPL | 12,000 | 50 | -- |
| 8 | KPL | 10,869 | 230 Vols | 119 |
| 9 | MWL | 27,000 | 250 Vols | 100 |
| 10 | FPOL | 14,293 | 50 | -- |
| 11 | APL | 20,000 | 650 Vols | 100 |
| 12 | FPBL | 25,000 | 42 | -- |
| 13 | FPNL | 18,000 | 445 | -- |
| 14 | LSPL | 29,898 | 40 | -- |

Table 4.3.4 shows that the polytechnic library collections are relatively small in size. Isa Keita Library, Kaduna Polytechnic (IKL) has the largest collection size (60,000 books and 120 serials titles). This can be explained by its high potential user population (17,000 staff and students), its age (established in 1960), relatively high recurrent budgets (Table 4.3.5) and the number, variety and level of the institution's academic programmes (it awards certificates, National Diploma, Higher National Diploma, Bachelor's degree and was preparing to start the master's degree programme

at the time of data collection in July 1994).

It is also noteworthy that Akanu Ibiam Federal Polytechnic Uwana-Afikpo Library (AFPL) has the smallest collection. Though the potential user population of the parent institution is relatively low (4,250 staff and students) the small and seemingly ridiculous size of the collection can only suggest inaction on the part of the librarians to attract necessary funds for acquisition.

In all the libraries visited, most of the serials titles were either not current or had been discontinued for lack of foreign exchange. Ajibero (1992) expressed concern over this trend when he posited that:

...In recent times polytechnic libraries have not been able to provide the necessary resources to support teaching and learning process and research. For the past seven years, the country has been experiencing spiral inflationary trends brought about by the introduction of Structural Adjustment Programme and the unprecedented devaluation of the Naira ... at the same time total library budgets diminished in real terms...

Traditionally, service to students and faculty members in an academic community is seen as closely related to the size of the collection. Dipeolu (1992) shares this view and asserts that:

...books constitute the essence of any library organization. As long as books and other forms of recorded communication continue to flow unhindered, the life and well being of a library are assured. Interfering with the supply of books to a library is like hindering the flow of blood in the human body, the consequences of which could be grave or even tragic.

Since the books and journals not acquired are needed by the users most of whom have fixed periods to complete their study or research, one wonders how they make up for

the deficiencies in the library. Ifidon (1977) confirmed the importance of library collection size to successful academic programmes. He established through research that, the larger the physical size of a university's collection, the more it is able to sustain post-graduate research.

Another pertinent observation from the result in Table 4.3.5 is the near complete lack of audio-visual materials in the libraries' collections. This gap according to Mabawonku (1992) appears to be a result of the Librarian's lack of good background on the use of audio-visuals and the enormous cost of acquiring and maintaining audio-visual equipment. Whatever may be the reason for failure to stock audio-visual materials in the libraries, these materials are indeed very important especially in the polytechnic. Bozimo (1992) has stressed the importance of audio-visuals in polytechnic libraries and argues that since imparting of practical skills is the mission of polytechnics and the necessary equipment for the skills acquisition are often lacking, audio-visual materials in libraries depicting such skills might be the most cost-effective alternative.

4.3:5 Research Question 5

How well are the polytechnic libraries funded?

Funding is central to all the provisions necessary for effective library services. It is with adequate funds that adequate library personnel can be recruited in terms of quantity and quality; purpose built libraries require adequate finance; acquisition of

qualitative books audiovisuals and serials for users in sufficient numbers requires proper library funding; provision of comfortable library furniture, appropriate working equipment and materials, staff development and general motivation, etc all require sufficient funding.

This study acknowledges that today's library performance may not have strong relationship with the amount of money made available to the library at present. The latest library budget may yet be largely unspent at the time the library's performance is being measured, for example. Instead, it is the belief of the researcher that present library performance will among others, have direct bearing with the size of retrospective library budgets and how much of the budgets were actually released.

Since it is not feasible to know which library budgets have actually dictated present library performance, data on four years library budgets (1990/91-1992/93) of Nigerian polytechnics was sought for logistic reasons. Getting information on library budgets was the most difficult task of the researcher. In spite of all efforts, the budget figures volunteered by the libraries, in a good number of cases were mere estimates by the chief executives. The data on the budgets is presented in Table 4.3.5.

Table 4.3.5: The Polytechnic Library Budgets*

| | LIBR | 1991 | | 1992 | | 1993 | |
|----|------|---------|----------|---------|----------|--------|----------|
| | | Capital | Recur. | Capital | Recur. | Capit. | Recur. |
| 1 | FPIL | -- | 33000 | -- | 20000 | -- | 25000 |
| 2 | IKL | -- | 591794 | -- | 590376 | -- | 1794174 |
| 3 | PCL | -- | -- | -- | 100000 | -- | 50000 |
| 4 | SAML | 250000 | 168099 | 50000 | 180282 | 20000 | 235850 |
| 5 | AFPL | -- | -- | -- | -- | -- | -- |
| 6 | FPML | 1860253 | -- | 2115320 | -- | -- | -- |
| 7 | KSPL | -- | -- | -- | -- | -- | 10000 |
| 8 | KPL | -- | 50000 | -- | 50000 | -- | 20000 |
| 9 | MWL | -- | -- | 25000 | -- | -- | 1800000 |
| 10 | FPOL | 9,610 | 74555.90 | -- | 38082.20 | 3380 | 44610.73 |
| 11 | APL | -- | -- | -- | 82000 | -- | -- |
| 12 | FPBL | -- | 85000 | -- | 100000 | -- | 120000 |
| 13 | FPNL | -- | 34000 | -- | -- | -- | 48000 |
| 14 | LSPL | -- | -- | 150032 | -- | 399660 | -- |

* All budgets are in Naira and Kobo (N : K)

The incomplete nature of the data in Table 4.3.5 coupled with the fact that some of the budget figures supplied were mere estimates make comparison of funding among the polytechnic libraries a difficult exercise. Moreover, the potential user populations and relative size of the libraries differed greatly in many instances. In such a situation it becomes exceedingly difficult to draw an inference on the relationship between the performance of the polytechnic libraries and the size of their budgets.

From the data collected on library budgets and the researcher's informal discussions with many of the libraries' chief executives, one could conclude that:

- i. the heads of polytechnic libraries lack budgetary control (i.e., they have no control over the library's budget; how much it is, how much of it they can spend and on what priority items or projects the money should be spent). The fate of the polytechnic library in Nigeria lies strongly at the goodwill and machinations of the institution's Rector and the Bursar who usually work hand in hand. The researcher learned that a great deal of the budget approvals for the library (if at all) were on paper;
- ii. the polytechnic libraries are inadequately funded.

This finding vindicates the strong assertion by Aboi (1992) that:

Central to the problem of polytechnic library development is the issue of inadequate funding... There are situations in some polytechnics where insignificant amounts are allocated to the library for the procurement of materials. In some other cases, some funds have been allocated but the Librarian had no free hand to administer the funds.

The serious neglect and apathy towards library funding is bound to have serious negative impact on the ability of the library to assist its parent institution achieve its mission. This situation in Nigerian polytechnics is unfortunate since libraries are the center of academic activities. According to Ajibero (1992), "it is believed that a polytechnic is as good as its library. Therefore, there can never be a good polytechnic with a bad library."

In spite of the importance of the library in an academic environment, Chukwu (1988) regrets that the library has remained the weeping child of most Nigerian higher institutions particularly in the polytechnic system." Ajibero (1992) and Steel (1991)

have attributed the neglect of polytechnic libraries to culpable ignorance of most of the chief executives of the higher institutions of the importance of libraries to the successful implementation of their institutions' goals.

To every librarian, the state of finances of polytechnic libraries in Nigeria should be a matter for great concern. Be that as it may, Cram (1993) avers that the professional responsibility for taking measures to attract more funds to the library lies heavily with the Polytechnic Librarians. After all, "the challenge for libraries is to ensure that their purpose is not warped by the doctrine of economic rationalism, which is an ideology of the market. Library services are a budgeting imperative."

4.3:6 Research Question 6

How effective are polytechnic libraries in Nigeria?

In order to determine the effectiveness of the polytechnic libraries, the users were asked to assess the performance of all library resources, readers' services and library policies that could affect user satisfaction. A total of 47 questions covering the various library performance markers were asked. These were put in a Likert-type five-point scale for ease of analysis. The mean score for each of the polytechnic libraries was computed for both the overall performance and the performance indices - OC, WS, TS and LC.

The levels of effectiveness of the polytechnic libraries represented by the mean scores are presented in Table 4.3.6. This library effectiveness, expressed in percentage is also presented in Figure 4.3.6.

CODESRIA - LIBRARY

Table 4.3.6 Performance of Polytechnic Libraries in Nigeria Measured by User Approach

| Library | N | Overall Performance | Mean of Factor Performance | | | |
|---------|-----|------------------------|----------------------------|-------|-------|-------|
| | | | OC | QS | TS | LC |
| 1. FPIL | 359 | 112.7 | 60.31 | 15.44 | 19.25 | 21.20 |
| 2. IKL | 995 | 160.25 | 77.16 | 24.04 | 25.73 | 36.42 |
| 3. PCL | 560 | 138.61 | 62.19 | 21.34 | 21.06 | 27.36 |
| 4. SAML | 404 | 156.87 | 77.29 | 24.95 | 23.30 | 35.13 |
| 5. AFPL | 338 | 126.73 | 60.83 | 21.61 | 20.07 | 27.29 |
| 6. FPML | 413 | 134.97 | 68.49 | 20.31 | 21.40 | 27.22 |
| 7. KSPL | 450 | 102.95 | 48.36 | 17.41 | 16.51 | 23.13 |
| 8. KPL | 335 | 140.50 | 66.58 | 22.94 | 22.55 | 31.66 |
| 9. MWL | 346 | 126.26 | 60.47 | 20.85 | 20.51 | 26.79 |
| 10 FPOL | 543 | 122.72 | 57.78 | 20.66 | 20.66 | 25.87 |
| 11 APL | 369 | 126.47 | 61.69 | 21.93 | 21.75 | 24.77 |
| 12 FPBL | 460 | 131.35 | 62.76 | 21.41 | 21.68 | 28.48 |
| 13 FPNL | 398 | 152.53 | 73.59 | 22.83 | 24.50 | 34.52 |
| 14 LSPL | 444 | 117.77 | 53.09 | 19.27 | 20.97 | 27.09 |

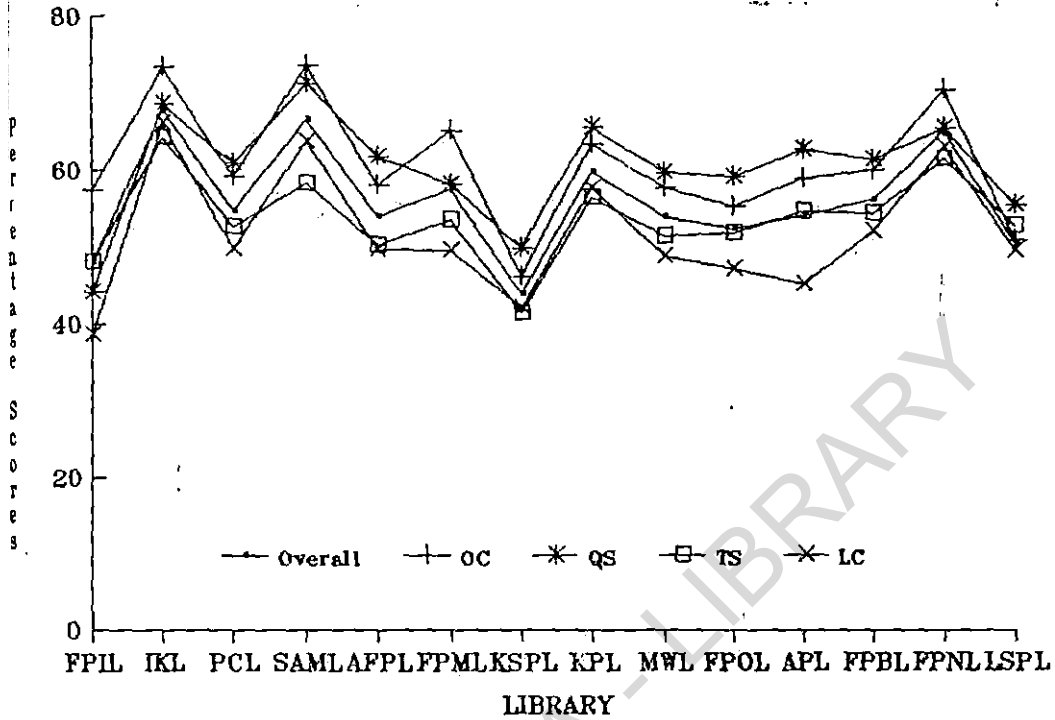


Fig. 4.3.6: Graph Showing the Percentage Variation in the Performance of Nigerian Polytechnic Libraries.

Table 4.3.6 and Figure 4.3.6 shows that there are numerical differences in the performance of the polytechnic libraries. With a mean score of 160.25 (68.1%), IKL recorded the highest performance while KSPL with a 102.95 (43.8%) score has the least performance among the libraries. SAML had the second highest performance score (156.87 or 66.75%) while FPNL with a mean performance score of 152.53 or 64.91% came third in the performance hierarchy. The wide variation in the performance of some of the libraries could be as a result of the amount of resources available to each as shown in Tables 4.3.3 4.3.5.

Table 4.3.6 shows that the general performance of polytechnic libraries in Nigeria is slightly above average. This is an indication that the Nigerian polytechnic libraries are not effective. This result conforms with the finding of Ene (1978) that public libraries in Benin-city were ineffective in meeting the information needs of the people. In that research, it was discovered that only 2% of the potential public library users were served.

Though the observed performance in most of the polytechnic libraries falls far short of expectation, the libraries nevertheless can be said to have performed creditably well given the harsh political and economic climate in which most of the libraries were found to be operating, the levels of performance thus recorded deserve commendation. Nigerian polytechnic libraries, as it were, have been literarily speaking, performing miracles.

4.4 Testing Hypotheses

The three hypotheses of the research were restated and tested in this section.

4.4:1 Hypothesis 1

There is no significant difference between the performance of the Nigerian polytechnic libraries that are adequately staffed and those that are inadequately staffed.

To test the foregoing hypothesis, the staffing index of each of the 14 libraries in the study sample were computed. Staffing is considered to be an aggregate of number of staff, position or rank of the staff as well as his qualification, work experience and participation in organised staff development programmes.

The staffing index means for the individual polytechnic libraries are stated in Table 4.4.1.

Table 4.4.1 shows that IKL had the highest staffing index mean (11.47) followed by SAML and KSPL both of which had 10.60 staffing index mean. PCL recorded the least staffing index mean of 6.67.

Table 4.4.1: Staffing Index Means of Nigerian Polytechnic Libraries

| LIBRARY | S/INDEX |
|----------------|----------------|
| 1. FPIL | 8.17 |
| 2. IKL | 11.47 |
| 3. PCL | 6.67 |
| 4. SAML | 10.60 |
| 5. AFPL | 9.00 |
| 6. FPML | 9.50 |
| 7. KSPL | 10.60 |
| 8. KPL | 8.71 |
| 9. MWL | 8.38 |
| 10. FPOL | 9.11 |
| 11. APL | 10.00 |
| 12. FPBL | 10.00 |
| 13. FPNL | 9.14 |
| 14. LSPL | 9.43 |

S/INDEX = Staffing index mean

Table 4.4.1 shows that IKL had the highest staffing index mean (11.47) followed by SAML and KSPL both of which had 10.60 staffing index mean. PCL recorded the least staffing index mean of 6.67.

In order to determine the polytechnic libraries that are adequately staffed and those that are inadequately staffed, one had to compute the mean of the overall index means for the 14 polytechnics. This was found to be 9.34. This method of determining the adequately staffed libraries and the inadequately staffed ones was resorted to because there is no standard of library staffing so far established which is as comprehensive as the staffing index used in this work. The library Personnel Rating Scale (LPRS) thus used is an original contribution to librarianship.

Using the mean of means as a yardstick, therefore, any library which has a staffing index mean up to or above 9.34 was considered for the purpose of this work as adequately staffed. Similarly, all the libraries whose staffing index means are less than 9.34 were considered to be inadequately staffed. Two groups of the polytechnic libraries thus became apparent from the application of the formula as shown in Table 4.4.2.

Table 4.4.2: Grouping of Nigerian Polytechnic Libraries according to Staffing Level

| ADEQUATELY STAFFED | | INADEQUATELY STAFFED | |
|--------------------|---------|----------------------|---------|
| LIBRARY | S/INDEX | LIBRARY | S/INDEX |
| 1. IKL | 11.47 | 1. FPNL | 9.14 |
| 2. KSPL | 10.60 | 2. FPOL | 9.11 |
| 3. SAML | 10.60 | 3. AFPL | 9.00 |
| 4. APL | 10.00 | 4. KPL | 8.71 |
| 5. FPBL | 10.00 | 5. MWL | 8.38 |
| 6. FPML | 9.50 | 6. FPIL | 8.17 |
| 7. LSPL | 9.43 | 7. PCL | 6.67 |

Table 4.4.2 shows that seven of the polytechnic libraries are adequately staffed while seven others are inadequately staffed. These libraries are arranged hierarchically according to each one's staffing index score, from the highest to the least.

The next step taken to prove the hypothesis was to measure the performance of the 14 polytechnic libraries by user approach. This was achieved by administering Questionnaire I on the users as discussed in Section 3.4:1. The mean of the overall

performance score of each of the libraries is regarded as the effectiveness level of that particular library.

The assessment was both for the overall performance of the polytechnic library and the performance of each of the four library performance indices - Operational Climate (OP), Qualitative Services (QS), Tangible Services (TS) and Library Collection (LC). This is considered necessary in order to identify which aspects of library provisions and services to users are being well provided and those that are neglected and so need improvement.

The performance of polytechnic libraries in Nigeria has been presented in Table 4.3.6. The table shows that there are numerical differences in performance among the polytechnic libraries. In order to find out whether or not the numerical differences thus observed are statistically significant, the Analysis of Variance test (ANOVA) was done on both the overall performance of each of the polytechnic libraries and that of their performance indices. The result of the test is presented in Table 4.4.3.

Table 4.4.3 One-way Anova Showing the Variation in the Performance of Polytechnic Libraries in Nigeria

| Sources of Variation | Df | Overall Performance | Mean Square (MS) | | | |
|-----------------------|------|---------------------|------------------|----------|----------|-----------|
| | | | OC | QS | TS | LC |
| Polytechnic Libraries | 13 | 146897.98* | 37673.74* | 2812.28* | 2866.46* | 10841.19* |
| Error | 6400 | 436.18 | 98.27 | 16.58 | 20.43 | 44.30 |
| Total | 6413 | | | | | |
| F-value | | 336.78 | 383.39 | 169.59 | 140.29 | 244.72 |

* = $P < 0.05$

The foregoing table shows that there is a significant variation in the performance of Nigerian polytechnic libraries. This variation is noticed both in the overall performance of the libraries and of the performance indices.

Another test, the Duncan Multiple Range Test (DMRT) was carried out to determine the mode of variation in the performance of the libraries. The Duncan test uses the letters of the alphabet to denote groups that are either significantly or not significantly different. When two or more groups or entities are denoted by the same letter, it follows that they are not significantly different. On the other hand, if any two or more groups or entities are represented by different letters, then they are significantly different from one another.

The result of the DMRT was superimposed on the table of performance of the polytechnic libraries which also indicated the standard error mean (SEM) resulting from the ANOVA test.

This is presented as Table 4.4.4.

CODESRIA - LIBRARY

Table 4.4.4: Performance of Polytechnic Libraries in Nigeria Measured by User Approach

| Library | N | Overall Performance | Mean \pm SEM | | | |
|----------|-----|----------------------|---------------------------------|--------------------------------|--------------------------------|-------------------------------|
| | | | OC | QS | TS | LC |
| 1. FPIL | 359 | 112.7 ^j | 60.31 \pm 0.23 ^g | 15.44 \pm 0.10 ⁱ | 19.25 \pm 0.12 ^j | 21.20 \pm 0.15 ⁱ |
| 2. IKL | 995 | 160.25 ^a | 77.16 \pm 0.31 ^a | 24.04 \pm 0.12 ^b | 25.73 \pm 0.15 ^a | 36.42 \pm 0.22 ^a |
| 3. PCL | 560 | 138.61 ^{fg} | 62.19 \pm 0.47 ^{ef} | 21.34 \pm 0.15 ^{de} | 21.06 \pm 0.19 ^{gh} | 27.36 \pm 0.28 ^c |
| 4. SAML | 404 | 156.87 ^b | 77.29 \pm 0.49 ^d | 24.95 \pm 0.20 ^a | 23.30 \pm 0.25 ^c | 35.13 \pm 0.37 ^b |
| 5. AFPL | 338 | 126.73 ^s | 60.83 \pm 0.78 ^{fg} | 21.61 \pm 0.27 ^d | 20.07 \pm 0.31 ⁱ | 27.29 \pm 0.44 ^c |
| 6. FPML | 413 | 134.97 ^e | 68.49 \pm 0.57 ^a | 20.31 \pm 0.29 ^f | 21.40 \pm 0.27 ^{ig} | 27.22 \pm 0.41 ^c |
| 7. KSPL | 450 | 102.95 ^k | 48.36 \pm 0.39 ^j | 17.41 \pm 0.19 ^b | 16.51 \pm 0.19 ^k | 23.13 \pm 0.23 ^h |
| 8. KPL | 335 | 140.50 ^d | 66.58 \pm 0.89 ^d | 22.94 \pm 0.30 ^c | 22.55 \pm 0.33 ^d | 31.66 \pm 0.52 ^c |
| 9. MWL | 346 | 126.26 ^s | 60.47 \pm 0.57 ^g | 20.85 \pm 0.24 ^{ef} | 20.51 \pm 0.27 ^{hi} | 26.79 \pm 0.32 ^c |
| 10. FPOL | 543 | 122.72 ^h | 57.78 \pm 0.37 ^h | 20.66 \pm 0.17 ^f | 20.66 \pm 0.19 ^{hi} | 25.87 \pm 0.33 ^f |
| 11. APL | 369 | 126.47 ^e | 61.69 \pm 0.28 ^{efg} | 21.93 \pm 0.16 ^d | 21.75 \pm 0.16 ^e | 24.77 \pm 0.24 ^g |
| 12. FPBL | 460 | 131.35 ^f | 62.76 \pm 0.27 ^e | 21.41 \pm 0.13 ^{de} | 21.68 \pm 0.15 ^{ef} | 28.48 \pm 0.19 ^d |
| 13. FPNL | 398 | 152.53 ^c | 73.59 \pm 0.68 ^b | 22.83 \pm 0.25 ^c | 24.50 \pm 0.25 ^b | 34.52 \pm 0.41 ^b |
| 14. LSPL | 444 | 117.77 ⁱ | 53.09 \pm 0.21 ⁱ | 19.27 \pm 0.14 ^g | 20.97 \pm 0.15 ^{gh} | 27.09 \pm 0.17 ^e |

NB: Means with different letters are significantly different at $p < 0.05$

The table shows that no two libraries in the study sample had the same level of overall performance. However, the performances of IKL (a) is close to that of SAML (b) and FPNL (c) while LSPL (i), FPIL (j) and KSPL (k) have closely related performances. The higher the order of the alphabet, the higher is the performance of the library.

Since it is the aggregate of the performance indices that constitute the overall performance of the library, it is necessary to examine the mode of variations in the performance indices of the libraries. Typical of micro-evaluation, this study is interested in finding out why the factors are performing at the present level and what can be done to improve them for greater library effectiveness. The variations that occurred in the performance indices among the polytechnic libraries are discussed in sections 4.4:11 - 4.4:14.

4.4:11 Variations in the Performance of Operational Climate (OC) Among Nigerian Polytechnic Libraries

Table 4.4.4 shows that SAML has the highest score in OC (and by inference, has the best OC among the polytechnic libraries (77.29 or 73.61%) mean performance. This performance score, however, is not significantly different from that of IKL (77.16 or 73.48% mean performance). The result is not surprising because the two libraries are known to have recently completed magnificent, purpose-built libraries. The two institutions also had the highest recurrent budgets among the polytechnic libraries for the study period (and these were considerable) and high quality staff in terms of staff qualifications, experience and participation in organised staff development programmes (Tables 4.2.1 - 4.2.3). FPNL AND FPML with mean scores of 73.59 (70.08%), 68.49 (65.23%) respectively came 3rd and 4th on the hierarchy of OC. Appendix VI reveals that these two libraries have purpose-built buildings. Considering that SAML and IKL also have modern buildings for their operations, the result

underlines the importance of nature of operational space in library effectiveness.

Results of the Tables also show that KSPL has the least score on OC (48.36 or 46.06% mean performance) among the libraries surveyed. This result is not a surprise since KSPL had the lowest recurrent budget among the libraries for the only year for which information on the library's budget was supplied (1993). The library also ranked very low in staffing and has no central building. Kano State Polytechnic is operating a multi-campus system with the scanty library staff and materials distributed all over the four campuses, each of which has a satellite library.

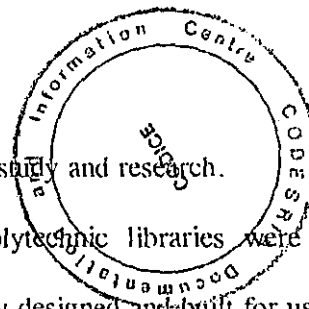
The Ag. Polytechnic librarian's office is not attached to any of the satellite libraries. Instead, his office is located in the central administrative block of the polytechnic in a separate area of the city. The situation is rather bizarre. Above all, the libraries were all found to be very dusty and stuffy.

Another library with a very low OC score is the LSPL (53.09 or 50.56% mean performance). This is also not a surprise because the respondents to the user questionnaire complained of shortage of reading space in the library and the noise of aircrafts overflying the Isolo campus. Furthermore, the polytechnic has a high students and staff population but no hostel facilities. It also lacks adequate classroom space. All these factors, no doubt could put so much pressure on the available library space (a converted classroom block) that it could bring about user frustration, hence the low OC score recorded.

Effective utilization of library resources, to a large extent depends on the building in which they are housed. The reading environment is of great importance to the library user. Ononogbo (1992) posits that:

Students and faculty expect an environment that commands respect, that eliminates noise and dust, separates serious readers from leisure readers, with air-conditioners, adequate

number of seats for users, and ...conducive environment for study and research.



Ajibero (1992) observes that, most of the country's polytechnic libraries were not constructed purposely for library operations. They were initially designed and built for use as classrooms, laboratories, halls, etc but later modified for library use. Such modifications and expansions in general have at best complicated the layout of the affected buildings. These makeshift structures do not conform to standard specifications for academic library buildings (national or international). The structures certainly lack the much cherished user-friendly climate that can guarantee effective use of library resources.

Generally, the polytechnic libraries performed above average in OC. This is an indication that beyond physical facilities, other components of OC like user-friendly library policies, adhering to stipulated opening and closing time, friendliness of staff to users and noise control have significant implications for library performance.

It has already been observed that most reports in the library's annual performance depend largely on tangible services. To show how unfair such reports can be, performance assessments of tangible services are equally presented in Table 4.2.5 as only an aspect of the total performance of each affected library.

4.4:12 Variation in the Performance of Tangible Services Among Nigerian Polytechnic Libraries

The result of Table 4.4.4 shows that Tangible Services (TS) in the polytechnic libraries had performance scores slightly above average. IKL recorded the highest performance (25.73 or 64.33%) while KSPL had the least score (16.51 or 41.28% performance mean). This result confirms that the polytechnic is a system. The library is a part of the system. Decisions and attitudes of the parent institutions to their libraries, for example, can affect all aspects of

academic library service either positively or negatively.

In the absence of objective performance measures for academic library services in Nigeria, all the judgements passed by the administrators and the users on library performance or output are mainly based on tangible services (TS) rendered, especially where the records are kept. However, the literature has emphasised that tangible (quantitative) services alone are no true measures of how well the library has served its users for the given period. Proponents of this view include Morris (1994), Johannsen (1992) and Moore (1992).

The performance of the library could also be measured in terms of the qualitative services to the polytechnic community. This is also discernable from Table 4.4.4.

4.4:13 Variation in the Performance of Qualitative Services (QS) Among Nigerian Polytechnic Libraries

Table 4.4.4 shows that the highest performance in qualitative services (QS) was recorded by IKL (24.04 or 68.70%) which has consistently performed well. The least performance was recorded by FPIL (15.44 or 44.12%). It is noteworthy that the general performance of the libraries in QS exceeds that of TS. This suggests that the libraries are doing their best within the limits of the available resources.

Considering the relatively high performance of QS in the libraries despite dwindling resources and attention as reported by Aboi (1992) and Igben (1993) there is no doubt that the libraries could have received more attention and support if QS was measured and documented. Many writers have emphasised the need to measure both quantitative and qualitative services in the library. These include Cailders (1972), Saracevic (1977), Ephraim (1995) and Crown (1982).

According to Cayless (1976), libraries have not ranked high on budget priority lists when

times are hard. It is therefore very important for polytechnic library management to convince the funding authorities to support the library programme. This conviction will be made easier by full proof of past library performance both in quantitative and qualitative terms.

No doubt, a major visible achievement of libraries is the size of the collection. However, Table 4.4.4 has presented library collection as an aggregate of quantity, completeness and quality of the collection. This aggregate makes the concept of collection more wholistic than mere physical size often wrongly emphasised.

4.4:14 Variation in the Performance of Library Collection Among Nigerian Polytechnic Libraries

Results of Table 4.4.4 reveal that IKL has the highest performance score (36.42 or 66.22%) on library collection (LC) closely followed by SAML (35.13 or 63.87%). The least scores were recorded by FPIL (21.20 or 38.54%) and KSPL (23.13 or 42.06%). Acquisition of high quality library materials on a regular basis requires sufficient funds. It has already been revealed that the recurrent budgets of IKL and SAML are relatively high. This could account for the good performance of the two libraries on LC since it must have had an appreciable impact on the size and depth of their collections. Similarly, FPIL and KSPL which had the least recurrent budgets also ranked lowest in the performance of LC.

The results thus analysed strongly suggest a relationship between size of a library's budget and its collection. Collection has been described by Dipeolu (1992) as the live-wire of any library organisation. Ifidon (1977) has, for instance, proved that the more the size of an academic library's collection, the more likely it is able to support serious research efforts in the parent institution.

A study of the Table shows that most of the polytechnic libraries scored below average in

the performance of LC. This could be a result of several factors including prohibitive cost of acquiring books and journals especially in the sciences and technology and the professions elaborately discussed by Ifidon (1994). Another closely related factor is the poor funding of polytechnic libraries in Nigeria as reflected in their annual recurrent budgets presented in Table 4.3.5. Ifidon (1985; 1990) has highlighted a similar poor funding situation in Nigerian University libraries which has adversely affected collection development for higher education and research.

Because the prices of books have gone beyond the reach of the common man, failure of polytechnic libraries to adequately stock the materials needed by their users could result in the turning out of inadequately trained graduates by the polytechnics. This would be an unwholesome development for Nigeria that is seemingly in a haste to develop manpower and locally appropriate technology for the much needed economic development.

Already, Chukwu (1988) has lamented that facilities of libraries in the polytechnics are being overused and over-stretched to a point of disrepair. The stress on the polytechnic library collection has resulted in physical damage to the materials, mutilation and stealing of library books reported in Nigeria in recent times, Alafiatayo (1986 and 1990), Akinfolarin (1992). Thus, it appears that poor funding of library acquisitions also results in the depletion of the existing collection by desperate users.

Polytechnics deal with science and technology courses. Publications in the disciplines get obsolete within a short time, in most cases. If any library should maintain a static (or dwindling) collection at all, it should not be the polytechnic library. Chukwu (1988) posits that:

...a polytechnic or higher institution... which has no library can hardly be described as a higher institution of learning. When in such institution, however, library services

provided fall far too short of requirements, a new problem is created. The problem of whether to classify such an institution as higher or lower, academic or non-academic.

From the results of the ANOVA test and the DMRT presented in Tables 4.4.3-4.4.4 and Figure 4.2, it is obvious that a significant variation exists in the performance of Nigerian polytechnic libraries ($p < 0.05$). This variation is apparent not only in the overall performance of the libraries but also in the performances of each of the four performance indices (OC, QS, TS, LC).

Having established that significant variations exist in the performance of polytechnic libraries in Nigeria, proving hypothesis 1 can show whether or not the differences in performance among the libraries can be accounted for by variations in their levels of staffing.

The final step to prove this hypothesis was to carry out a t-test on the two groups of polytechnic libraries - those that adequately staffed and those that are inadequately staffed. This grouping can be seen in Table 4.4.5. The result of the t-test is hereby presented.

Table 4.4.5: The Difference Between the Performance of the Polytechnic Libraries that are Adequately Staffed and those that are Inadequately Staffed

| Library Staffing | N | Mean Performance | SD | SEM |
|-------------------------|---|------------------|------|--------------------|
| 1. Adequately Staffed | 7 | 56.57 | 8.68 | 3.28 ^{ns} |
| 2. Inadequately Staffed | 7 | 55.32 | 5.49 | 2.07 |

ns = Not significant ($P > 0.05$)

The result of the t-test in Table 4.4.5 reveals that there is no significant difference between

the performance of the polytechnic libraries that are adequately staffed and those that are inadequately staffed ($P > 0.05$). Consequently, Hypothesis 1 is accepted.

The reasons for this result are not far fetched. The data collected on the staffing of the polytechnic libraries reveal that it is only the top-level library management that benefited from staff development programmes like the attendance to short courses, conferences, seminars and workshops on librarianship. It was also observed that the top-level management of the polytechnic libraries (the Polytechnic Librarian and Deputy-Polytechnic Librarian) were not involved in direct services to the users.

Library officers and library assistants were found to be playing prominent roles in readers' services of all the polytechnic libraries. Since this category of staff are hardly given the opportunity to participate in organised staff development programmes, their contributions to performance, no matter where, will not likely differ. Incidentally, the opinions of the users about their polytechnic libraries' performance are greatly influenced by the interaction they always have with the library officers and library assistants in the process of satisfying their information needs.

It is, to say the least, unfortunate that despite all the management theories and principles learnt in library schools, no matter where, polytechnic library management in Nigeria still does not feel favourably disposed to creating opportunities for their staff to develop themselves on the job. Fayol was reported by Koontz and O'Donnel (1972) to have referred to the people working in the organisation as human machines. Like the industrial machines, the personnel in the organisation need to be periodically serviced through reorientation and further professional education and training.

The compelling need for human resource development was re-echoed by Gana (1994) who

avers that:

...the "human resources" is the most crucial in the achievement of an objective. A greater part of resource management deals with the management of human resources of an organisation. Policies are formulated by the human resources and implemented by that same resource. Other types of resources cannot manipulate themselves to perform and achieve desired goals. Therefore, the selection, deployment, training, development, motivation, promotion, remuneration and working conditions of staff are crucial if an organisation is to succeed in achieving desired result.

Obviously, the library does not operate a staff development policy all on its own. Its policy is part of the overall staff development policy of its parent organisation. However, a few areas of staff training programme the library can embark upon which need not be endorsed as a formal policy by the parent institution have been suggested. These, according to Izebekhai (1994) include staff orientation, special attachment and exchange of staff by co-operating libraries, internally organised seminars and workshops to exchange professional work experiences by all professional and para-professional staff, and attendance to nationally organised professional workshops, seminars and conferences and presenting scholarly papers.

Once the library personnel are encouraged to undergo further professional education and training, and a conducive work environment created, there is no doubt that they will contribute more meaningfully to effective library services.

Conversely, Izebekhai (1994) argues that an environment that is unconducive to work lowers the morale of the staff. Their contributions to the realization of their library's goals may either be negative or at best not match the level of education.

Moreover, all the polytechnic libraries, irrespective of their level of staffing are grossly underfunded as depicted in Table 4.3.5. The libraries also lack up-to-date collections and generally have inadequate facilities for in-house library use as is manifest in the research data.

Please see Table 4.3.4 and appendices V and VI.

The result of the test of Hypothesis 1 needs not be interpreted to mean that staffing is not an important factor in library effectiveness. Instead, the result exposes the lopsidedness of staff development in Nigerian polytechnic libraries in favour of the top level management. One can also infer, based on the interaction with the library personnel in the course of the data collection, that the generally low morale of the staff due to poor motivation was a contributory factor to the outcome of the test to Hypothesis 1.

4.4:2 Hypothesis 2

There is no significant difference in the assessment of the performance of polytechnic libraries in Nigeria by the users on the one hand, and the libraries' personnel on the other.

To test the foregoing hypothesis, the t-test was carried out on the performance of the polytechnic libraries measured by user approach and the performance assessment by the library staff themselves. The result of the test is shown in Table 4.4.21 and also represented in Figure 4.4.2.

Table 4.4.21 Performance Assessment of Polytechnic Libraries in Nigeria by the Library Staff and the Users

| Number of Libraries | Performance Assessor | Number of Respondents | Mean Performance | SEM | SD | Significance |
|---------------------|----------------------|-----------------------|---------------------|------|-------|--------------|
| 14 | STAFF | 97 | 162.29 ^b | 2.17 | 21.35 | |
| 14 | USER | 6414 | 133.72 ^a | 0.34 | 37.08 | * |

* = $P < 0.05$

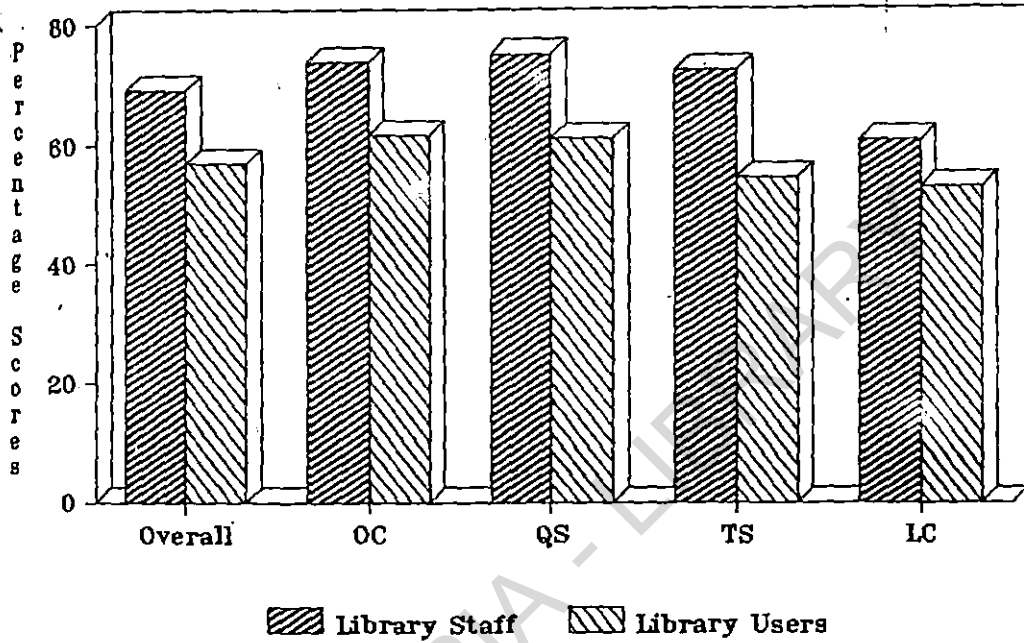


Fig. 4.4.2: Bar Chart Showing Mode of Variation in the Assessment of Nigerian Polytechnic Libraries' Performance by the Library Staff and the Users.

Table 4.4.21 shows that the difference in the overall assessment of the polytechnic libraries by the users and the library staff is significant ($P < 0.05$).

To confirm this result, the t-test was also performed on the pairs of performance scores of the four library performance indices in the study (OC, QS, TS, LC). The results are presented in the accompanying tables.

Table 4.4.22 Assessment of Individual Performance Indices of Nigerian Polytechnic Libraries by the Library Staff and the Users

| Variable | N | Mean Performance | SEM | SD | Significance |
|----------|------|--------------------|------|-------|--------------|
| OC | 97 | 77.36 ^b | 1.11 | 10.95 | * |
| | 6414 | 64.57 ^a | 0.16 | 13.21 | |
| QS | 97 | 26.24 ^b | 0.34 | 3.33 | * |
| | 6414 | 21.32 ^a | 0.06 | 4.72 | |
| TS | 97 | 28.90 ^b | 0.46 | 4.49 | * |
| | 6414 | 21.78 ^a | 0.06 | 5.12 | |
| LC | 97 | 33.37 ^b | 0.73 | 7.15 | * |
| | 6414 | 29.03 ^a | 0.10 | 8.14 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users;

* = $P < 0.05$

Results of the t-test indicate highly significant differences in the pairs of performance scores per variable ($P < 0.05$). This confirms the result of the t-test on the overall libraries's performance.

One ought not conclude based on the foregoing results. Variations in the pairs of library performance assessment observed may have been influenced by a wide variation occurring in a few of the libraries. Before accepting or rejecting the hypothesis, the differences in the pairs

of performance scores of each of the libraries need be ascertained for both the total library performance and factor performance for each of the polytechnic libraries. These have been presented in Table 4.4.23-4.4.30

Table 4.4.23 Performance Assessment of FPIL by the Library Staff and the Users

| Performance Assessor | N | Mean Performance | SEM | SD | Significance |
|----------------------|-----|------------------|------|------|--------------|
| STAFF | 6 | 161.50 | 148 | 3.62 | * |
| USERS | 359 | 112.50 | 0.39 | 7.40 | |

* = $P < 0.05$

The foregoing result shows that the t-value is highly significant ($P < 0.05$). This result will be confirmed by performing a t-Test on the pairs of performance scores of the four performance indices. Table 4.4.24 presents the result.

Table 4.4.24 Assessment of Individual Performance Indices on FPIL by the Library Staff and the Users

| Variables | N | Mean Performance | SEM | SD | Significance |
|-----------|-----|------------------|------|------|--------------|
| OC | 6 | 75.67 | 1.84 | 4.50 | * |
| | 359 | 60.31 | 0.23 | 4.32 | |
| QS | 6 | 28.67 | 0.61 | 1.51 | * |
| | 359 | 15.44 | 0.10 | 1.88 | |
| TS | 6 | 34.00 | 0.37 | 0.89 | * |
| | 359 | 19.25 | 0.12 | 2.33 | |
| LC | 6 | 27.83 | 1.14 | 2.77 | * |
| | 359 | 21.20 | 0.15 | 2.85 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

Table 4.4.24 confirms that a significant difference exists between the performance assessment made by the library staff and those by the users. Based on the results of Tables 4.4.23-4.4.24, the null hypothesis is hereby rejected for FPIL. This is to say that a significant difference exists in the rating of FPIL performance by the library staff on the one hand, and the users, on the other.

The hypothesis was also tested on IKL performance assessments and presented in the next two tables.

Table 4.4.25 Performance Assessment of IKL by the Library Staff and the Users

| Assessor | N | Mean Performance | SEM | SD | Significance |
|----------|-----|------------------|------|-------|--------------|
| STAFF | 15 | 184.33 | 4.12 | 15.94 | * |
| USERS | 995 | 160.25 | 0.66 | 20.96 | |

* = $P < 0.05$

Results of Table/4.4.25 reveal that a significant difference exists between the assessments done by the library staff and the users ($P < 0.05$). This result has been corroborated by a t-test on the performance scores of the major variables presented in Table 4.4.26.

Table 4.4.26 Assessment of Individual Performance Indices of IKL by the Library Staff and the Users

| Variable | N | Mean Performance | SEM | SD | Significance |
|----------|-----|------------------|------|------|--------------|
| OC | 15 | 89.53 | 1.67 | 6.48 | * |
| | 995 | 77.16 | 0.31 | 9.83 | |
| QS | 15 | 26.33 | 0.73 | 2.82 | * |
| | 995 | 24.05 | 0.12 | 3.79 | |
| TS | 15 | 29.93 | 0.88 | 3.39 | * |
| | 995 | 25.73 | 0.15 | 4.86 | |
| LC | 15 | 41.80 | 1.49 | 5.76 | * |
| | 995 | 36.42 | 0.22 | 7.09 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

Table 4.4.26 confirms the finding in Table 4.4.25. Based on the results of the two tables, the null hypothesis is rejected for IKL. Indeed, there is a highly significant difference in the measurements of library performance by the library staff on the one hand, and the users on the

other.

This hypothesis has been equally tested on PCL performance assessments as presented in the next two tables.

Table 4.4.27 Assessment of Performance of PCL by the Library Staff and the Users

| ASSESSOR | N | MEAN PERFORMANCE | SD | SEM |
|----------|-----|------------------|-------|--------------------|
| STAFF | 6 | 120.00 | 18.60 | 7.59 ^{ns} |
| USERS | 560 | 128.61 | 21.21 | 0.90 |

ns = not significant ($P < 0.05$)

The result of Table 4.2.27 indicates that there is no significant difference in the performance assessment of PCL by the library staff and the users ($P > 0.05$). This finding, which is quite different from the results of the previous t-tests (on FPIL and IKL) was confirmed by a similar test on the pairs of assessments of the performance indices. This is presented in Table 4.4.28.

Table 4.4.28 Assessment of Individual Performance Indices of PCL by the Library Staff and the Users

| Variables | N | Mean Performance | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| OC | 6 | 58.83 | 4.51 | 11.05 | ns |
| | 560 | 62.19 | 0.47 | 11.12 | |
| QS | 6 | 23.67 | 0.99 | 2.25 | ns |
| | 560 | 21.34 | 0.15 | 3.56 | |
| TS | 6 | 22.00 | 2.54 | 6.23 | ns |
| | 560 | 21.06 | 0.19 | 4.38 | |
| LC | 6 | 21.83 | 1.40 | 3.43 | * |
| | 560 | 27.36 | 0.28 | 6.70 | |

Upper row - Assessment by library staff

Lower row - Assessment by library users

ns = not significant ($P > 0.05$)

* = $P < 0.05$

From Table 4.4.28 it is evident that there is no significant difference in the performance assessment by the library staff and the users on three of the variables. A significant difference only exists in respect of the pair of measurements of LC. Even then, it is only a weak significance ($P < 0.05$).

On the whole, one would have to accept the null hypothesis as it affects PCL.

The hypothesis was equally tested on the performance assessment of SAML as presented in the next two tables.

Table 4.4.29 Performance Assessment of SAML by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| STAFF | 5 | 173.60 | 7.22 | 16.15 | ns |
| USERS | 404 | 156.87 | 1.11 | 22.32 | |

ns = not significant

The result of the foregoing Table shows that no significant difference exists in the performance assessment scores by the SAML staff and the users. This result has been cross-checked against the result of the performance in Table 4.4.30.

Table 4.4.30 Assessment of Individual Performance Indices of SAML by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|------|--------------|
| OC | 5 | 83.00 | 2.74 | 6.12 | ns |
| | 404 | 77.29 | 0.49 | 9.84 | |
| QS | 5 | 27.80 | 1.59 | 3.56 | ns |
| | 404 | 24.95 | 0.20 | 4.03 | |
| TS | 5 | 28.80 | 1.98 | 4.44 | * |
| | 404 | 23.30 | 0.25 | 5.12 | |
| LC | 5 | 37.60 | 1.94 | 4.34 | ns |
| | 404 | 35.13 | 0.37 | 7.36 | |

For a given Library:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

ns = not significant ($P > 0.05$)

Table 4.4.30 has confirmed that no significant difference exists between the assessment of library performance by the staff and the users of SAML. A significant difference was only

observed in their assessments of TS.

On the whole, the null hypothesis is accepted for the SAML performance assessments. No significant difference exists between the pairs of measurements of the library's performance.

Next, the hypothesis was tested on the performance scores of AFPL.

Table 4.4.31 Performance Assessment of AFPL by the Library Staff and the Users

| VARIABLES | N | MEAN | SEM | SD | Significance |
|-----------|-----|--------|------|-------|--------------|
| STAFF | 3 | 141.67 | 3.18 | 5.51 | * |
| USERS | 338 | 126.73 | 1.60 | 29.48 | |

* = $P < 0.05$ /

Table 4.4.31 shows that a significant difference exists in the assessment of AFPL performance by the staff and the users ($P < 0.05$). A similar test was done to see whether the result will be the same when the factor performance measures are considered.

Table 4.4.32 Assessment of Individual Performance Indices of AFPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| OC | 3 | 67.00 | 1.73 | 3.00 | * |
| | 338 | 60.83 | 0.78 | 14.30 | |
| QS | 3 | 25.67 | 1.20 | 2.08 | ns |
| | 338 | 21.61 | 0.27 | 5.03 | |
| TS | 3 | 20.67 | 3.38 | 5.86 | ns |
| | 338 | 20.07 | 0.31 | 5.63 | |
| LC | 3 | 30.00 | 0.00 | 0.00 | * |
| | 338 | 27.29 | 0.44 | 8.08 | |

For a given variable: Upper row - Assessment by library staff; Lower row - Assessment by library users; * = $P < 0.05$; ns - not significant ($P > 0.05$)

The two different measurements of factor performance of AFPL as shown in Table 4.4.32 are significantly different for two variables (OC,LC) but not significantly different for the other two (QS,TS). Considering results of Tables 4.4.31-4.4.32 the null hypothesis is accepted for AFPL. The hypothesis was also tested for FPML in the next table.

Table 4.4.33 Performance Assessment of FPML by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| STAFF | 4 | 171.50 | 4.27 | 8.54 | * |
| USERS | 413 | 134.97 | 1.31 | 26.70 | |

* = $P < 0.05$

Table 4.4.33 reveals that a significant difference exists between the measurements of FPML performance by the library's staff on the one hand, and the users, on the other ($P < 0.05$). This result was confirmed by repeating the test on the pairs of performance assessments for each of the four major variables and presented in Table 4.4.34.

Table 4.4.34 Assessment of Individual Performance Indices of FPML by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| OC | 4 | 86.25 | 1.31 | 2.63 | * |
| | 413 | 68.49 | 0.57 | 11.49 | |
| QS | 4 | 23.00 | 0.41 | 0.82 | * |
| | 413 | 20.31 | 0.29 | 5.97 | |
| TS | 4 | 28.75 | 1.38 | 2.75 | * |
| | 413 | 21.40 | 0.27 | 5.46 | |
| LC | 4 | 36.00 | 2.12 | 4.24 | * |
| | 413 | 27.33 | 0.41 | 8.37 | |

For a given variable: Upper row - Assessment by library staff; Lower row - Assessment by library users; * = $P < 0.05$

The results of Table 4.4.34 show that a significant difference exists between the performance assessment done by the library staff and that done by the users on each of the four performance indices.

Considering the results of Table 4.4.33 and 4.4.34, the null hypothesis is rejected for FPML. A significant difference exists in the measurements done by the two parties.

The hypothesis was also tested for KSPL performance assessments and presented in the tables that follow.

Table 4.4.35 Performance Assessments of KSPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| STAFF | 5 | 148.40 | 8.27 | 18.49 | * |
| USERS | 450 | 102.95 | 0.84 | 17.90 | |

* = $P < 0.05$

Table 4.4.35 indicates a significant difference between the performance measurement of KSPL done by the library staff and the users ($P < 0.05$). This result was confirmed by a similar test on the factor assessments by the both parties as presented in the next table.

Table 4.4.36 Assessment of Individual Performance Indices of KSPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|------|--------------|
| OC | 5 | 68.40 | 3.78 | 8.44 | * |
| | 450 | 48.36 | 0.39 | 8.29 | |
| QS | 5 | 25.20 | 2.63 | 5.89 | * |
| | 450 | 17.41 | 0.19 | 4.05 | |
| TS | 5 | 25.80 | 1.71 | 3.83 | * |
| | 450 | 16.51 | 0.19 | 4.08 | |
| LC | 5 | 32.20 | 2.06 | 4.60 | * |
| | 450 | 23.13 | 0.23 | 4.92 | |

For a given variable:

Upper row - Assessment by Library Staff

Lower row - Assessment by Library Users

* = $p < 0.05$

It can be inferred from Table 4.4.36 that there is a significant difference between the measurements by the staff and the users of KSPL on each of the performance indices. Considering the results of Tables 4.4.35-4.4.36, one rejects the null hypothesis for KSPL. A significant difference exists in the performance measurement done by the staff and the users of KSPL. Next, the hypothesis was tested for KPL as presented in Table 4.4.37.

Table 4.4.37 Performance Assessments of KPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| STAFF | 7 | 159.29 | 2.13 | 5.65 | * |
| USERS | 335 | 140.50 | 1.87 | 34.17 | |

* = $P < 0.05$

Table 4.4.37 shows that a highly significant relationship exists between the performance assessment done by the staff and the users of KPL. This result was corroborated by another t-test on the factor performance measurements of KPL by the two parties as presented in the next table.

Table 4.4.38 Assessments of Individual Performance Indices of KPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| OC | 7 | 77.14 | 0.67 | 1.77 | * |
| | 335 | 66.58 | 0.89 | 16.24 | |
| QS | 7 | 27.57 | 0.30 | 0.79 | * |
| | 335 | 22.94 | 0.30 | 5.44 | |
| TS | 7 | 28.14 | 1.14 | 3.02 | * |
| | 335 | 22.55 | 0.33 | 6.01 | |
| LC | 7 | 29.43 | 0.10 | 2.64 | ns |
| | 335 | 31.66 | 0.52 | 9.53 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

ns - not significant ($P > 0.05$)

Table 4.4.38 indicates a significant difference in the two pairs of performance measures for three of the four variables. However, no significant difference was observed in the measurements for LC.

On the whole, the null hypothesis is rejected for KPL. Effort was also made to test the hypothesis for MWL as presented in Table 4.4.39.

Table 4.4.39 Performance Assessment of MWL by the Library Staff and the Users

| Variable | N | MEAN PERFORMANCE | SEM | SD | Significance |
|----------|-----|---------------------|------|-------|--------------|
| STAFF | 8 | 164.75 | 5.75 | 16.27 | * |
| USERS | 346 | 126.26 | 1.13 | 20.98 | |

* = $P < 0.05$

The result of Table 4.4.39 reveals that a highly significant difference exists between the performance assessment made by the users and staff of MWL respectively. This result was confirmed by a similar test on the measurements of the performance indices by the two parties as presented in Table 4.4.40.

Table 4.4.40 Assessment of Individual Performance Indices of MWL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| OC | 8 | 74.88 | 2.61 | 7.40 | * |
| | 346 | 60.47 | 0.56 | 10.36 | |
| QS | 8 | 25.13 | 1.63 | 4.61 | * |
| | 346 | 20.85 | 0.24 | 4.47 | |
| TS | 8 | 28.63 | 1.08 | 3.08 | * |
| | 346 | 20.51 | 0.27 | 5.01 | |
| LC | 8 | 39.38 | 2.13 | 6.02 | * |
| | 346 | 26.79 | 0.32 | 5.89 | |

For a given variable:

Upper row - Assessment by library staff;

Lower row - Assessment by library users;

* = $P < 0.05$

The foregoing table confirms that a significant difference exists in the performance

assessments done by the library staff and users of MWL. Thus, the null hypothesis is rejected for MWL. A t-test was also done on the pairs of performance scores of FPOL as reported in Table 4.4.41.

Table 4.4.41 Performance Assessments of FPOL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| STAFF | 9 | 136.11 | 4.41 | 13.22 | * |
| USERS | 543 | 122.72 | 0.89 | 20.71 | |

* = $P < 0.05$

Table 4.4.41 indicates that there is a significant difference between the performance measurements of FPOL made by the users on the one hand, and the staff, on the other. This result was crosschecked with the result of the t-test on the factor assessments by the two parties and reported in Table 4.4.42

Table 4.4.42 Assessment of Individual Performance Indices of FPOL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|------|--------------|
| OC | 9 | 62.89 | 2.85 | 8.55 | ns |
| | 543 | 57.78 | 0.37 | 8.72 | |
| QS | 9 | 23.44 | 1.39 | 4.16 | ns |
| | 543 | 20.66 | 0.17 | 4.05 | |
| TS | 9 | 26.11 | 1.31 | 3.92 | * |
| | 543 | 20.66 | 0.19 | 4.54 | |
| LC | 9 | 26.33 | 1.67 | 5.00 | ns |
| | 543 | 25.87 | 0.33 | 7.62 | |

For a given variable: Upper row - Assessment by library staff; Lower row - Assessment by library users; * = $P < 0.05$; ns - not significant ($P > 0.05$)

In Table 4.4.42 only TS exhibited a significant difference in the measurements of performance of FPOL by the staff and the users. Considering the results of Tables 4.4.41-4.4.42, the null hypothesis is accepted for FPOL. There is no significant difference in the performance measurements made by the staff and users of FPOL.

Table 4.4.43 Performance Assessments of APL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| STAFF | 8 | 167.88 | 1.66 | 4.70 | * |
| USERS | 369 | 126.47 | 0.54 | 10.29 | |

* = $P < 0.05$

Table 4.4.43 shows that a highly significant difference exists in the performance measurements by the staff and the users of APL. This result was confirmed by a similar test on the pairs of factor performance scores as reported in the next table.

Table 4.4.44 Assessment of Individual Performance of APL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|------|--------------|
| OC | 8 | 80.13 | 1.29 | 3.64 | * |
| | 369 | 61.69 | 0.28 | 5.41 | |
| QS | 8 | 27.88 | 0.30 | 0.83 | * |
| | 369 | 21.93 | 0.16 | 3.10 | |
| TS | 8 | 31.25 | 0.56 | 1.58 | * |
| | 369 | 21.75 | 0.16 | 3.02 | |
| LC | 8 | 32.88 | 0.79 | 2.23 | * |
| | 369 | 24.77 | 0.24 | 4.62 | |

For a given variable: Upper row - Assessment by library staff; Lower row - Assessment by library users; * = $P < 0.05$

Table 4.4.44 shows that a significant difference exists between the measurement of each of the factors' performance by the staff and the users of APL.

In the light of the findings of Tables 4.4.43-4.4.44, the third null hypothesis is rejected for APL. A significant difference exists in the performance measurements by the staff and the users. The hypothesis was also tested for FPBL and reported in the next Table.

Table 4.4.45 Performance Assessments of FPBL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|------|--------------|
| STAFF | 7 | 173.43 | 2.28 | 6.02 | * |
| USERS | 460 | 131.35 | 0.44 | 9.34 | |

* = $P < 0.05$

Table 4.4.45 shows that a highly significant difference exists between the performance assessments done by staff of FPBL and that done by the users. This result was confirmed by a similar test on the two pairs of performance assessment scores of FPBL as reported in Table 4.4.46.

Table 4.4.46 Assessment of Individual Performance Indices of FPBL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|------|--------------|
| OC | 7 | 83.71 | 1.39 | 3.68 | * |
| | 460 | 62.76 | 0.27 | 5.81 | |
| QS | 7 | 28.86 | 0.55 | 1.46 | * |
| | 460 | 21.41 | 0.13 | 2.83 | |
| TS | 7 | 32.00 | 0.69 | 1.83 | * |
| | 460 | 21.68 | 0.15 | 3.15 | |
| LC | 7 | 32.57 | 0.87 | 2.30 | * |
| | 460 | 28.48 | 0.19 | 4.07 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

Table 4.4.46 shows that a high significant difference exists between the performance assessments of each of the performance indices by the FPBL staff and the users. This confirms the result in Table 4.4.45 and so, the null hypothesis is rejected for FPBL. The hypothesis was further tested on FPNL and reported in Table 4.4.47.

Table 4.4.47 Performance Assessments of FPNL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| STAFF | 7 | 174.29 | 1.23 | 3.25 | * |
| USERS | 398 | 152.53 | 1.33 | 26.48 | |

* = $P < 0.05$

The result of Table 4.4.47 reveals that a highly significant difference exists between the performance assessment of FPNL done by the staff and by the users. This result was

corroborated by a similar test on the difference between the performance assessments by the two parties on the four variables as presented in Table 4.4.48.

Table 4.4.48 Assessment of Individual Performance Indices of FPNL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|------------------|------|-------|--------------|
| OC | 7 | 83.86 | 1.12 | 2.97 | * |
| | 398 | 73.59 | 0.63 | 12.54 | |
| QS | 7 | 28.57 | 0.48 | 1.27 | * |
| | 398 | 22.83 | 0.25 | 4.96 | |
| TS | 7 | 32.43 | 0.20 | 0.53 | * |
| | 398 | 24.49 | 0.25 | 4.90 | |
| LC | 7 | 34.00 | 1.02 | 2.71 | ns |
| | 398 | 34.52 | 0.41 | 8.24 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = $P < 0.05$

ns - Not significant ($P > 0.05$)

The results of Table 4.4.48 show that a significant difference exists in the performance assessments of three of the variables by the staff and users of FPNL. However, no significant difference was observed in the measurements by the two parties on LC.

Judging from the overall results of the two tables, the null hypothesis is rejected for FPNL. Indeed, there is a significant difference in the assessments of FPNL performance by the Library staff and the users.

Finally, the hypothesis was tested on LSPL performance assessments as reported in Table 4.4.49.

Table 4.4.49 Performance Assessments of LSPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|-------|--------------|
| STAFF | 7 | 161.71 | 7.23 | 19.13 | * |
| USERS | 444 | 117.77 | 0.33 | 6.91 | |

* = $P < 0.05$

From Table 4.4.49, it can be inferred that a high significant difference exists in the performance assessments of LSPL by the staff and the users. This inference was confirmed by a t-test on the assessments by the users and the staff of LSPL of each of the performance indices as presented in Table 4.4.50.

Table 4.4.50 Assessment of Individual Performance Indices of LSPL by the Library Staff and the Users

| VARIABLES | N | MEAN PERFORMANCE | SEM | SD | Significance |
|-----------|-----|---------------------|------|------|--------------|
| OC | 7 | 76.00 | 3.23 | 8.54 | * |
| | 444 | 53.09 | 0.21 | 4.49 | |
| QS | 7 | 24.57 | 0.97 | 2.57 | * |
| | 444 | 19.27 | 0.14 | 2.85 | |
| TS | 7 | 29.43 | 1.41 | 3.74 | * |
| | 444 | 20.97 | 0.15 | 3.14 | |
| LC | 7 | 34.57 | 3.30 | 8.73 | ns |
| | 444 | 27.09 | 0.17 | 3.62 | |

For a given variable:

Upper row - Assessment by library staff

Lower row - Assessment by library users

* = significant at $P < 0.05$

ns - not significant ($P > 0.05$)

Results of Table 4.4.50 show that a significant difference exists in the assessments of the performance of three, out of the four variables by the staff on the one hand and the users, on the other.

From the results of Tables 4.4.49-4.4.50, the null hypothesis is rejected for LSPL.

A review of the results of the t-test of significance on the assessments of library performance by the staff and the users reveals that a significant difference was observed in the assessments by the two parties in the whole polytechnic libraries put together. A significant difference was also observed in the assessments of performance by the staff and the users of ten out of the fourteen libraries.

It was also observed that in the few instances where no significant difference occurred in the assessments, this was accounted for mainly by the homogeneity of the assessments of LC performance. This is an indication that the collections of some Nigerian polytechnic libraries are so poor that neither the users nor the staff could deviate from objectivity in the assessment.

In the final analysis, the second null hypothesis is hereby not accepted. The results of the tests both for the overall polytechnic libraries' performance and those of the individual libraries in the study clearly indicate a highly significant difference in the performance scores as measured by the two parties - the users and the library staff.

4.4:3 Hypothesis 3

There is no significant relationship between the performance of polytechnic libraries in Nigeria and the following variables:

- i. operational climate
- ii. qualitative services

- iii. tangible services and
- iv. library collection.

To test the foregoing hypothesis, correlation analysis was done to establish the relationship, if any, between performance and the performance indices. The result is presented in Table 4.4.51.

Table 4.4. 51: Relationship between Performance Indices and the Overall Performance of Polytechnic Libraries in Nigerian measured by User approach

| PERFORMANCE INDICES | | | | | |
|---------------------|---------|-------|-------|-------|-------|
| S/N | LIBRARY | OC | QS | TS | LC |
| 1 | FPIL | 0.77* | 0.16* | 0.70* | 0.74* |
| 2 | IKL | 0.88* | 0.68* | 0.79* | 0.88* |
| 3 | PCL | 0.93* | 0.69* | 0.79* | 0.84* |
| 4 | SAML | 0.92* | 0.77* | 0.80* | 0.88* |
| 5 | AFPL | 0.96* | 0.81* | 0.85* | 0.92* |
| 6 | FPML | 0.89* | 0.84* | 0.87* | 0.87* |
| 7 | KSPL | 0.91* | 0.85* | 0.75* | 0.90* |
| 8 | KPL | 0.98* | 0.90* | 0.89* | 0.95* |
| 9 | MWL | 0.91* | 0.73* | 0.79* | 0.86* |
| 10 | FPOL | 0.90* | 0.82* | 0.80* | 0.90* |
| 11 | APL | 0.80* | 0.37* | 0.45* | 0.81* |
| 12 | FPBL | 0.79* | 0.57* | 0.40* | 0.55* |
| 13 | FPNL | 0.93* | 0.81* | 0.81* | 0.92* |
| 14 | LSPL | 0.63* | 0.39* | 0.43* | 0.44* |

* = significant at $P < 0.05$

Table 4.4.51 was analyzed based on the result of the user approach to performance

measurement. This has been widely acclaimed to be the most authentic measure of library performance.

It is evident from results of Table 4.4.3 that a very strong correlation exists between each of the performance indices, Operational Climate (OC), Quantitative Services (QS), Tangible Services (TS) and Library Collection (LC) and library performance in all the polytechnic libraries ($P < 0.05$ in most cases).

Sequel to the foregoing result, the fourth null hypothesis is hereby not accepted. This implies that a significant relationship exists between operational climate, qualitative services, tangible services, library collection and the performance of polytechnic libraries in Nigeria.

The implication of this finding is that commensurate attention should be given to each of the variables by the polytechnic library management to ensure balanced and effective library services. No matter the temptation, over emphasis on only one or a few of the performance indices must be avoided in order that users can derive maximum satisfaction and benefit from the financial resources expended on the library.

To determine the effect of each of the four variables to the overall performance of the individual polytechnic library, step-wise multiple regression analyses were made for the fourteen institutions. The import of each of the performance indices depicted by the value of the partial R^2 as presented in the following tables:

Table 4.4.52: Contribution of the Performance Indices to the Overall Performance of FPIL

| Variable | Parameter of Estimate | St. Error of Est. | Sum of Squares | F | Partial R ² | Model R ² |
|-----------|-----------------------|-------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 3.92 | 1.20 | 17.25 | 10.67* | | |
| OC | 0.86 | 0.02 | 2958.44 | 1829.42* | 0.60 | 0.60 |
| LC | 1.20 | 0.03 | 3313.44 | 2048.94* | 0.30 | 0.90 |
| TS | 0.94 | 0.04 | 979.14 | 605.47* | 0.03 | 0.93 |
| QS | 0.86 | 0.04 | 783.98 | 484.79* | 0.04 | 0.97 |

* P < 0.05

Evidence from the result of Table 4.4.52 is that all the performance indices are highly significant ($P < 0.05$) in the performance of FPIL. In the hierarchy of effect of each group to general library performance, operational climate (OC) ranked highest while qualitative services (QS) was the least, hierarchically.

Table 4.4.53 : Contribution of the Performance Indices to the Overall Performance of IKL

| Variable | Parameter of Estimate | St. Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|-----------------------|-----------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 1.77 | 0.44 | 42.21 | 15.81* | | |
| LC | 1.10 | 0.01 | 25066.71 | 9387.14* | 0.78 | 0.78 |
| OC | 1.00 | 0.01 | 53411.65 | 20001.9* | 0.17 | 0.95 |
| TS | 0.82 | 0.02 | 7620.69 | 2853.84* | 0.03 | 0.98 |
| QS | 0.85 | 0.02 | 6593.84 | 2469.30* | 0.02 | 0.99 |

* = P < 0.05

Table 4.4.53 shows that all the performance indices (OC, TS, QS and LC) are highly significant ($P < 0.05$) to the performance of IKL. The stepwise regression analysis shows that LC is the most significant to the library's performance, with an R^2 value of 0.78, followed by OC, TS and QS, in that order.

Table 4.4.54: Contribution of the Performance Indices to the Overall Performance of PCL

| Variable | Parameter of Est. | Standard Error of Est. | Sum of Squares | F-value | Partial R^2 | Model R^2 |
|-----------|-------------------|------------------------|----------------|----------|---------------|-------------|
| INTERCEPT | 2.20 | 0.41 | 59.07 | 28.47* | | |
| OC | 0.97 | 0.01 | 26883.15 | 12959.1* | 0.86 | 0.86 |
| LC | 1.03 | 0.01 | 13401.03 | 6460.00* | 0.09 | 0.95 |
| TS | 0.86 | 0.20 | 3610.59 | 1740.49* | 0.03 | 0.98 |
| QS | 0.92 | 0.02 | 3500.23 | 1687.29* | 0.03 | 0.98 |

* = $P < 0.05$

It is evident from Table 4.4.54 that all the performance indices (OC, TS, QS and LC) are highly significant to the performance of PCL. OC is the most significant factor to the library's performance, followed by the LC, TS and QS, in that order.

Table 4.4.55 Contribution of the Performance Indices to the Overall Performance of SAML

| Variable | Parameter of Estimate | Standard Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|-----------------------|----------------------------|----------------|--------------------|------------------------|----------------------|
| INTERCEPT | -0.15 | 0.53 | 0.13 | 0.08 ^{ns} | | |
| OC | 1.00 | 0.01 | 14705.36 | 867725* | 0.85 | 0.85 |
| LC | 1.00 | 0.01 | 9153.70 | 5401.36* | 0.11 | 0.95 |
| TS | 0.97 | 0.02 | 5144.20 | 3035.46* | 0.03 | 0.98 |
| QS | 0.87 | 0.22 | 2465.23 | 1454.67* | 0.01 | 1.00 |

* = $P < 0.05$ ns = Not significant ($P > 0.05$)

Indication from Table 4.4.55 is that all the performance indices (OC, TS, QS and LC) are highly significant to the performance of SAML ($P < 0.05$). Out of the four factors, OC is the most significant, followed by LC, TS and QS, in that order.

Table 4.4.56: Contribution of the Performance Indices to the Overall Performance of AFPL

| Variable | Parameter Estimate | Standard Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|----------------------------|----------------|--------------------|------------------------|----------------------|
| INTERCEPT | 0.09 | 0.33 | 0.13 | 0.08 ^{ns} | | |
| OC | 1.05 | 0.01 | 20953.97 | 13067.2* | 0.92 | 0.92 |
| LC | 1.03 | 0.12 | 5497.50 | 3428.31* | 0.06 | 0.98 |
| QS | 0.83 | 0.02 | 2535.14 | 1580.95* | 0.01 | 0.99 |
| TS | 0.82 | 0.02 | 2218.58 | 1383.54* | 0.01 | 1.00 |

ns = Not significant ($P > 0.05$)* = $P < 0.05$

Table 4.4.56 shows that all the variables of interest in the study (OC, TS, QS and LC) are highly significant to the performance of AFPL ($P < 0.05$). Of these, OC contributed most to the library's performance, followed by LC, QS and TS, in that order.

Table 4.4.57 Contribution of the Performance Indices to the Overall Performance of FPML

| Variable | Parameter of Estimate | Standard Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|-----------------------|----------------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 1.91 | 0.56 | 40.60 | 11.82* | | |
| OC | 0.97 | 0.01 | 21460.18 | 6248.68* | 0.80 | 0.80 |
| LC | 1.06 | 0.02 | 12005.43 | 3495.69* | 0.16 | 0.96 |
| QS | 1.10 | 0.022 | 8105.53 | 2360.13* | 0.03 | 0.99 |
| TS | 0.72 | 0.03 | 1906.61 | 555.16* | 0.01 | 1.00 |

* = $P < 0.05$

The result of Table 4.4.57 reveals that all the performance indices in the study (OC, TS, QS and LC) are highly significant ($P < 0.05$) to the performance of FPML. It also shows that OC contributed most to the performance, followed by LC, QS and TS, in that order.

Table 4.4.58: Contribution of the Performance Indices to the Overall Performance of KSPL

| Variable | Parameter Estimate | Standard Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|----------------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 0.86 | 0.26 | 8.58 | 11.36* | | |
| OC | 0.97 | 0.01 | 8240.19 | 10911.0* | 0.83 | 0.83 |
| TS | 0.82 | 0.02 | 1975.55 | 2615.87* | 0.14 | 0.97 |
| LC | 1.04 | 0.02 | 2856.98 | 3782.98* | 0.02 | 0.98 |
| QS | 0.97 | 0.02 | 2405.85 | 3185.64* | 0.02 | 1.00 |

* = P < 0.05

Table 4.4.58 shows that all the performance indices are highly significant to the performance of KSPL (P<0.05). Out of the factors, OC ranked highest in performance, followed by TS, LC and QS, in that order.

Table 4.4.59: Contribution of the Performance Indices to the Overall Performance of KPL

| Variable | Parameter Estimate | Standard Error of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|----------------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 1.92 | 0.31 | 56.24 | 39.67* | | |
| OC | 0.95 | 0.01 | 11564.98 | 8157.32* | 0.95 | 0.95 |
| LC | 1.08 | 0.02 | 6055.67 | 4271.34* | 0.03 | 0.98 |
| TS | 0.88 | 0.02 | 2446.86 | 1725.89* | 0.01 | 0.99 |
| QS | 0.93 | 0.02 | 2132.52 | 1504.17* | 0.01 | 1.00 |

* = P < 0.05

From Table 4.4.59 it is certain that all the performance indices in the research (OC,TS,QS and LC) are highly significant to the performance of KPL ($P < 0.05$). In the hierarchy of their contributions to performance, OC came first, followed by LC, TS and QS, in that order:

Table 4.4.60 : Contribution of the Performance Indices to the Overall Performance of MWL

| Variable | Parameter Estimate | Standard of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|----------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 2.27 | 0.46 | 46.18 | 24.42* | | |
| OC | 1.02 | 0.01 | 19254.78 | 10180.4* | 0.83 | 0.83 |
| LC | 1.01 | 0.02 | 4723.89 | 2497.62* | 0.12 | 0.95 |
| QS | 0.90 | 0.02 | 3237.42 | 1711.70* | 0.02 | 0.98 |
| TS | 0.81 | 0.02 | 4744.47 | 1451.06* | 0.02 | 1.00 |

* = $P < 0.05$

One can see in Table 4.4.60 that all the performance indices in the study (OC,TS,QS and LC) are highly significant to the performance of MWL ($P < 0.05$). Hierarchically, OC is the most significant, followed by LC, QS and TS, in that order.

Table 4.4.61 Contribution of the Performance Indices to the Overall Performance of FPOL

| Variable | Parameter Estimate | Standard of Estimate | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|----------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 3.66 | 0.31 | 140.96 | 143.50* | | |
| LC | 1.03 | 0.01 | 13060.84 | 13296.7* | 0.8039 | 0.80 |
| OC | 0.99 | 0.01 | 18588.86 | 18924.6* | 0.1572 | 0.96 |
| TS | 0.81 | 0.01 | 3530.24 | 3595* | 0.0235 | 0.98 |
| QS | 0.89 | 0.02 | 3028.50 | 3083.20* | 0.0130 | 1.00 |

* = $P < 0.05$

Table 4.4.61 reveals that all the performance indices in the research (OC, TS, QS and LC) are highly significant to the performance of FPOL ($P < 0.05$). LC is the most significant of the factors, followed by OC, TS and QS, in that order.

Table 4.4.62 Contribution of the Performance Indices to the Overall Performance of APL

| Variable | Parameter Estimate | Standard of Est. | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 4.92 | 0.91 | 43.91 | 29.14* | | |
| LC | 1.03 | 0.02 | 5842.98 | 3877.97* | 0.66 | 0.66 |
| OC | 1.00 | 0.01 | 8241.23 | 5469.68* | 0.21 | 0.87 |
| QS | 0.88 | 0.02 | 2702.00 | 1793.31* | 0.07 | 0.97 |
| TS | 0.68 | 0.02 | 1414.08 | 938.52* | 0.04 | 0.99 |

* = $P < 0.05$

The result in Table 4.4.62 shows that all the four performance indices (OC, TS, QS and LC) are highly significant to the performance of APL ($P < 0.05$). LC is the most significant of them all, followed by OC, QS and TS, in that order.

Table 4.4.63: Contribution of the Performance Indices to the Overall Performance of FBPL

| Variable | Parameter Estimate | Standard of Est. | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 6.67 | 1.06 | 108.88 | 39.59* | | |
| OC | 0.98 | 0.01 | 12777.57 | 4646.28* | 0.62 | 0.62 |
| LC | 0.98 | 0.02 | 7128.73 | 2592.20* | 0.22 | 0.84 |
| TS | 0.90 | 0.03 | 2672.24 | 971.70* | 0.07 | 0.91 |
| QS | 0.74 | 0.03 | 2396.82 | 871.55* | 0.06 | 0.97 |

* = $P < 0.05$

The Table 4.4.63 shows that all the performance indices (OC, TS, QS and LC) are highly significant to the performance of FPBL ($P < 0.05$). The result also shows that OC is the most significant of the factors, followed by LC, QS and TS, in that order.

Table 4.4.64: Contribution of the Performance Indices to the Overall Performance of FPNL

| Variable | Parameter Estimate | Standard of Est. | Sum of Squares | F-Value | Partial R ² | Model R ² |
|-----------|--------------------|------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 2.72 | 0.45 | 73.87 | 36.54* | | |
| OC | 0.98 | 0.01 | 23526.60 | 11637.5* | 0.86 | 0.86 |
| LC | 1.12 | 0.02 | 9943.14 | 4918.40* | 0.11 | 0.96 |
| TS | 0.85 | 0.02 | 2961.36 | 1464.85* | 0.02 | 0.99 |
| QS | 0.82 | 0.02 | 2662.62 | 1317.07* | 0.01 | 1.00 |

* = $P < 0.05$

The Table 4.4.64 shows that all the performance indices (OC, TS, QS and LC) are

highly significant to the performance of FPNL ($P < 0.05$). It also indicates that OC is the most significant in the performance of the library, followed by LC, TS and QS, in that order.

Table 4.4.65: Contribution of the Performance Indices to the Overall Performance of LSPL

| Variable | Parameter Estimate | Standard of Est. | Sum of Squares | F-value | Partial R ² | Model R ² |
|-----------|--------------------|------------------|----------------|----------|------------------------|----------------------|
| INTERCEPT | 4.51 | 1.45 | 31.12 | 9.70* | | |
| OC | 0.98 | 0.02 | 8440.04 | 2630.92* | 0.40 | 0.40 |
| QS | 0.97 | 0.03 | 3117.75 | 971.86* | 0.18 | 0.58 |
| LC | 0.96 | 0.02 | 5229.95 | 1630.28* | 0.23 | 0.81 |
| TS | 0.81 | 0.03 | 2628.42 | 819.33* | 0.12 | 0.93 |

* = $P < 0.05$

In Table 4.4.65 one finds that all the four performance indices (OC, TS, QS and LC) are highly significant to the performance of LSPL ($P < 0.05$). Of these, OC contributed most significantly, followed by QS, LC, and TS, in that order.

The implication of this finding is that commensurate attention should be given to each of the variables by the polytechnic library management to ensure balanced and effective library services. No matter the temptation, over emphasis on only one or a few of the performance indices must be avoided in order that users can derive maximum satisfaction and benefit from the financial resources expended on the library.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

The research centres on the performance measurement of polytechnic libraries in Nigeria, adopting the user approach. Six independent variables relating to library performance were highlighted in the study. These are operational climate (OC), quantitative services (QS), tangible services (TS), library collection (LC), staffing and funding. The research has tried to reveal the relative importance of each of the variables to effective polytechnic library performance in Nigeria.

5.1 Summary of Findings

It is evident from the research that polytechnic libraries in Nigeria have not been given the attention and support they deserve by their parent institutions. This has adversely affected the provision of library resources and services in the institutions. The libraries are poorly funded while the Polytechnic Chief Librarian is only a figure head with no budgetary control. Most of the libraries are still operating in temporary, make-shift structures. Important facilities like reading chairs, tables, carrels and toilets for users are poorly provided for while library personnel for needed services are grossly inadequate in number and quality.

Most of the polytechnic libraries, irrespective of their age and potential user population have less than 20,000 volumes of books and 50 serials titles. Most of the

serials titles are either incomplete or have been discontinued for want of foreign exchange while the users complained that the library collection is largely outdated. The libraries have no functional audio-visual services to users. Many users proved ignorant of what audio-visual media are. Such findings signify that the polytechnic libraries in Nigeria are ineffective in satisfying user needs.

In spite of the unsatisfactory resources and services of the polytechnic libraries, they are heavily patronised by faculty and students. Majority visit the library frequently mainly to read their own textbooks and notes and do class assignment.

Most of the polytechnic libraries have never been measured partly or wholly before. Those who measure their performance do so by statistics of output. The statistics kept of library operations were incomplete in most cases.

A comprehensive measurement of the performance of the polytechnic libraries was made with the full co-operation of the users and the library staff. This shows that an objective assessment of the performance of library services is feasible, contrary to widely held belief among librarians in Nigeria.

On the average, the polytechnic libraries performed fairly well (about 53% on the average). Although this level of performance falls short of user expectation, it is nevertheless considered a feat in the light of the harsh socio-economic climate in which they have had to operate.

Three null hypotheses were tested in the research. While two of them were accepted, one was not accepted. The hypotheses are:

Hypothesis 1

There is no significant difference in the performance of the polytechnic libraries that are adequately staffed and those that are inadequately staffed.

This was tested by t-test at 0.05 level of significance. The test did not show any significant difference between the performance of the two groups of libraries ($P < 0.05$), the null hypothesis was therefore accepted. This result was attributed to lopsidedness in staff development, poor staff motivation and the prominence of untrained personnel in readers services operations in the polytechnics.

Hypothesis 2

There is no significant difference in the assessment of the performance of polytechnic libraries in Nigeria by the users on the one hand, and the libraries' personnel on the other.

This hypothesis was tested by the t-test at 0.05 level of significance. The result revealed a significant difference in the performance assessments made by the library users and that made by the Nigerian polytechnic libraries' personnel ($P < 0.05$). In all cases, the library staff rated the performance much higher than the users did. The null hypothesis was therefore not accepted.

Hypothesis 3

There is no significant relationship between the performance of polytechnic libraries in Nigeria and the following variables:

- i. Operational climate
- ii. qualitative services
- iii. tangible services and
- iv. library collection

This was tested by Pearson correlation analysis at 0.05 level of significance.

A significant relationship was established between polytechnic library performance and each of the four variables ($P < 0.05$). The null hypothesis was therefore not accepted.

Through a stepwise multiple regression analysis, it was further established that operational climate has the highest effect on polytechnic library performance, followed by library collection, tangible services and qualitative services, in that order.

5.2 Conclusion

The high patronage enjoyed by Nigerian polytechnic libraries is an indication that the users recognize that the library is a key academic resource in the institution. From the findings of the research also, one cannot but conclude that the polytechnic libraries are performing below the expectation of the users. They are therefore ineffective as academic support facilities. It is also appropriate to conclude that the

authorities of Nigerian polytechnics, at best pay lips service to their libraries as nerve centres of teaching, learning and research.

5.3 Implications of the Findings

The findings of the research have serious implications for the Nigerian polytechnic libraries, the polytechnics, the NBTE and the profession of librarianship.

5.3:1 Nigerian Polytechnic Library Management

Considering the level of performance recorded by the polytechnic libraries, there is no doubt that they have great potentials for meeting the needs, given necessary support. The library management therefore should intensify effort to win financial support for the polytechnic library's programmes. By so doing, the libraries can become more effective.

Following the enthusiasm of both the library personnel and the users on the library performance measurement exercise, it is appropriate to institutionalize the practice in order to make the library personnel alive to their professional responsibilities and give the users greater confidence that the library is genuinely concerned about their needs. This could also foster greater cooperation between the library and the users thereby reducing delinquent user practices widely reported in academic libraries.

The polytechnic management must avoid discriminating staff development

policy. Every staff of the library should be given the opportunity to participate in organized staff development programmes in the overall interest of the polytechnic library.

Furthermore, the untrained library staff should be closely supervised so that they can contribute more positively to library effectiveness. This category of staff are transient and could be involved in practices inimical to library effectiveness if not closely supervised.

The study also revealed that every member of the polytechnic community is a potential library user. If the polytechnic library properly performs its expected roles, chances are that every member of the community will use the library, a situation that will strongly enhance the attainment of the Nigerian polytechnic's objectives.

5.3:2 The Polytechnics

Since the success of the polytechnic's primary objective of developing middle-level manpower for Nigeria to a large extent depends on the effectiveness of the polytechnic library, it is very important for the polytechnics to adequately fund their libraries. According to Dean (1969), "if the libraries are not accorded their right place in the overall education plan, then that plan will never prove to be fully effective". Based on the present pressure on the existing polytechnic library facilities, most of them, technically will become museums in the next decade if nothing substantial is done to refurbish and reinforce them with human and material resources urgently.

5.3:3 The NBTE

It is because of its genuine interest and total commitment to the overall success of the polytechnics' mission in Nigeria that the National Board for Technical Education embarks on resource inspection in polytechnics before granting accreditation to the various academic programmes. However, this study has shown that the adequacy of the polytechnic library cannot be determined by assessing the library's resources only.

In the light of the findings of the research, accrediting a polytechnic library based on the availability of resources only could result in an error of judgement which will have adverse effect on the quality of students graduated by the Nigerian polytechnic. When this is the case, the noble intention of the country to develop middle level manpower through polytechnic education and training will be in serious jeopardy.

5.3:4 The Profession of Librarianship

The research result has shown that an objective measurement of the effectiveness of polytechnic libraries is not only feasible but also not too cumbersome. It is indeed achievable with minimum cost, in a limited time and with a high degree of exactness.

With the enthusiasm exhibited by the users and the library staff over the library performance measurement exercise, it will be naive for the profession to hold on to the belief that library performance is impossible to measure objectively.

Of no less importance to librarianship about the outcome of this research is that

operational climate (OC) is a prime factor in library effectiveness. Qualitative services, tangible services and library collection are also of great consequence to library effectiveness.

5.4 Recommendations

The problems affecting library effectiveness in Nigerian polytechnics are diverse, serious but not insurmountable. Though the present research does not have all the answers to the problems, some useful recommendations are hereby made to the relevant organs in order to bring about improvement.

5.4:1 To The Librarianship Profession

The library is a system. For greater effectiveness, equitable attention should be given to all performance variables - operational climate, qualitative services, tangible services and library collection. An over emphasis on any one of these factors can only breed lopsidedness in library performance and the attendant user frustration.

5.4:2 To COPLIN

Funding is central to the provision of all other library resources with which services are rendered. The Committee of Polytechnic Librarians in Nigeria (COPLIN) should as a body press for adequate funding of the polytechnic libraries. It is possible to push the case through the NBTE. A similar pressure from the Committee of

University Librarians of Nigerian Universities (CULNU) has yielded positive result. The University libraries are at present better funded because the NUC has made a policy permitting 10% of the total annual university recurrent budget to be drawn by the library directly from source. The members of COPLIN should capitalise on this good premise and pressurise the NBTE to make and enforce a similar policy for disbursement of funds to Nigerian polytechnics.

Aboil (1992) reports that the NBTE recommends that at least, 5% of the total polytechnic annual recurrent budget of the polytechnic be allocated to the library for its operations. Though the NBTE has done nothing to enforce the recommendation, it is still naive and can hardly improve library conditions even if implemented. Considering the high cost of library materials, furniture and equipment, the centrality of the library to the entire polytechnic and its role in the attainment of the primary objective of its parent institution, it is more appropriate for 10% of the recurrent budget to be allocated to the library. This budgetary allocation should be drawn directly by the polytechnic library from source without having to pass through the Rector or any other Officer for that matter.

COPLIN should ensure that once the policy is approved, it is to be enforced for all the polytechnics supervised by the NBTE, no matter the ownership. Bozimo (1992) posits that if the long neglected technical education is to assume its acknowledged prime position for meaningful development in Nigeria, then polytechnic libraries must promote and satisfy the identified needs of the polytechnic community. This will be

impracticable if the polytechnic libraries are not adequately funded. Lewis (1994) emphasizes that:

"...roles that libraries are being asked to play require that they should be given clear budgetary and pragmatic authority".

Not all the polytechnics offer a credit load course on 'use of the library.' At the Ogun State Polytechnic Abeokuta for example, the library prepared a programme for teaching 'use of the library' and passed it through the Academic Board. Despite the approval of the proposal by the Board, the Rector of the institution unilaterally cancelled it on the pretext that 'his' students had too many courses to do. This is an indication that user education is not only important for students of the polytechnics but also for the decision markers in the system.

Afolabi avers that besides furnishing staff and students with information materials of all types, the library should help the students to become familiar with its resources, develop skills in locating and using the materials. User education is very essential for all academic libraries. COPLIN should, as a body lobby the NBTE through a position paper to make a one credit hour course on use of the library compulsory for all polytechnic students. The course will enhance better exploitation of library resources by users, compliance with library rules and regulations and could reduce the incidence of user delinquency prevalent in Nigerian polytechnics where majority of users are teenagers. The use of the library course should be taught by the librarians in the polytechnic library and not staff of teaching departments, no matter

their background. Such librarians should be allowed to make part-time teaching claims for participating in the programme to motivate them.

5.4:3 To The Polytechnic Library Management

All polytechnic libraries in Nigeria need to institutionalise library performance measurement by user approach. This should be done annually and the survey population sample should include people outside the library so as to get the views of the non-users. Once measured, the processed result should be published in the library bulletin without any bias. Apart from winning support for the library, the exercise is expected to sensitise the library staff to put in their best towards meeting the user needs.

To supplement funds from its parent institution, the polytechnic library should explore other means of raising money from both internal and external sources. Such efforts could include payment of considerable library fee by the students at the beginning of each session as a prerequisite for library registration. Whatever fee to be charged should be subject to review as the economy of the country dictates. All library fees collected should be credited to the library account and utilized by it without any interference by the central administration. Normal accounting procedures in the polytechnic should nevertheless apply.

Philanthropic individuals and organisations abound in Nigeria and overseas. The Polytechnic Librarians should reach out to these individuals and organisations,

especially those within the locality of the polytechnic. These could assist the library by way of endowment, donations of books, equipment and money or sponsorship of specific library programmes. The Salau Abiola Memorial Library, Ogun State Polytechnic Abeokuta, for example, was donated by Chief M.K.O. Abiola, a Nigerian philanthropist who also donates books to the library annually. Many of such philanthropists abound and need to be approached by the Polytechnic Librarians.

A considerable revenue can also be generated by the library through commercialised bindery and reprography services. Most of the libraries are cited in remote parts of the town or countryside where commercial activities like photocopying and binding are lacking. This gap can be effectively filled by the libraries if only to generate revenue for its operations.

Pending the approval and implementation of the recommended direct budget release to the library from source, the Librarian should employ public relations and institutional diplomacy to ensure approval of funds for library operations by the Rector. If it entails playing the "local politics," the Librarian should not hesitate to do so. Librarians who constantly challenge the actions of the Rector, Bursar and Registrar at Management Committee meetings, for example, run the risk of having most of their requests for funds turned down.

Ajibero (1992) emphasizes that the effective utilization of library resources depends to a large extent on the building in which they are housed. The NBTE considers a good library as one that has adequate space in the sitting arrangement,

floor-space and in the stack area for comfort and easy movement. The polytechnic library is required by the NBTE to sit a good number of its student population, at least a quarter of the total student population as well as make projections for future expansion. To provide adequate operational space, all the polytechnics should design and construct permanent library buildings. In doing this, the design of modular buildings should be considered. In modular buildings, all spaces except the fixed elements (e.g. toilets, stairs, lobbies) are interchangeable. The structure of the building is supported by regularly spaced columns while the stacks consist of free-standing book cases which can easily be shifted from place to place.

Pending the construction of the purpose-built libraries, the Polytechnic Librarian should consider establishing special reading rooms as a way of easing human traffic in the library. The reading rooms are especially important for polytechnics that have inadequate boarding facilities and classrooms. If well furnished, properly illuminated and ventilated, it is hoped that the reading rooms will conveniently take care of those users who visit the library only for space to read their own textbooks and notes, and these are quite significant.

Because of the importance of the human resource in any organisation, serious attention should be given to staffing by the polytechnic libraries. Though COPLIN recommends a minimum of three librarians (in addition to the Polytechnic librarian) and three para-professionals for every polytechnic library, many are yet to meet such a minimum requirement. The libraries need to, at least, double their present staff

strength to be able to practice shift duty. In addition, all staff should be given every necessary encouragement and support to develop themselves professionally. Study leave with pay should be approved for library staff who desire to go for further studies while all professional and para-professional staff should be sponsored for, at least, one conference, seminar or workshop in librarianship annually. It is necessary to keep a roster on the subject to ensure that every staff is given a fair chance to participate in professional meetings.

To alleviate the problem of scarce foreign exchange for importing books and renewing journal subscriptions overseas, the Librarians should take advantage of UNESCO coupons. The coupons could be obtained from either the British Council or the Nigerian National Office for UNESCO on payment of the Naira equivalent. UNESCO coupons are accepted for educational transactions in many countries including Britain and United States. It is important to find out in advance from a bookseller or publisher overseas whether or not it will accept payment in UNESCO coupons. This is necessary to reduce the incidence of rejected coupons that could delay important library acquisitions.

A functional audio-visual department should be a necessary adjunct of the polytechnic library in Nigeria. The presence in libraries of audio-visual materials has become an accepted part of service in all libraries. Polytechnic libraries in Nigeria should therefore not be an exception. "Audio-visual information, in certain cases, can be used to greater effect than the printed word." This is especially appropriate in the

context of polytechnics of which mission is to teach the theory and demonstrate the practice of science and technology.

The NBTE sees one of the indicators of a good library as the quantity and quality of its stock which should include books, journals, reference materials, dailies and audio-visual instructional materials. Audio-visual materials in the polytechnic library would supplement the small and ageing collections of books and journals available at present. Though the acquisition of audio-visual materials and equipment requires an initial huge capital expenditure, once acquired they can serve the library for decades. For adequate supply of audio-visual materials with local relevance, the NBTE in conjunction with the Nigerian Library Association and the Nigerian Educational Technology Association should consider establishing a National Educational Media Production Centre. The Federal Ministry of Education has the capacity of financing such a project which will be fully commercialised as a limited liability company and so pay its way.

The National Media Production Centre can effectively serve the needs of all the polytechnics and other tertiary institutions that have uniform academic programmes. Once established, the centre should also take responsibility for training and retraining of staff on the application of media resources in libraries and allied centres. It should also undertake the service and repair of audio-visual equipment for polytechnics and other interested tertiary institutions on a consultancy basis.

To make more resources available for use by the polytechnic community

without necessarily spending too much money, the libraries should enter into pragmatic co-operation arrangement with other libraries within the same geographical location. The agreement should go beyond mere "gentleman's agreement" to concrete arrangements to share resources. The recommendations of Ochai on resource sharing by Nigerian polytechnics are quite elaborate and achievable. The recommendations cover co-operative acquisitions, co-operative bibliographic documentation, courier service, inter-library lending, co-operative photocopying services and co-operative automation.

To improve on library performance even with the existing resources, the polytechnic libraries need to automate their operations. Apart from the efficiency in library operations associated with computerisation, the exercise will ensure abundant supply of information for library users. It has been disclosed that:

A large proportion of information is now stored in electronic data bases, data banks, optical digital disks, computers and CD-Roms. Access to these information can only be made if the library is automated.

Computerization of library services, and indeed all human activities is a world-wide phenomenon. The Nigerian polytechnics will surely join the train sooner or later. But why not now?

The Nigerian experience has shown that it is probably only when there is an impending accreditation that authorities of tertiary institutions readily approve funds for library supplies of materials, furniture and equipment. The Polytechnic Librarians should take advantage of this observed tendency to ensure significant improvement in

library resources and services whenever the opportunity calls. Conniving with polytechnic authorities to deceive the accreditation panel should not be seen as a mark of chivalry or patriotism on the part of the polytechnic Librarian. Instead, failure to insist on implementing the NBTE recommendations for polytechnic libraries by any Librarian, no matter the reason, is a disservice to librarianship, the institution he serves and the library users and potential users.

To reduce user frustration, the polytechnic library must refrain from any discriminatory policy on readers' services. It is important to make only those policies that will ensure that adequate use is being made of library facilities by students and teaching staff as required by the NBTE. The situation at Salawu Abiola Memorial Library, for example, where students are not allowed to borrow books is an anomaly which must be discouraged.

For effectiveness in polytechnic library management, accurate statistics should be kept on all library routines while good records of income and expenditure of the library should be kept. Some aspects of investigation intended in this research could not be made because necessary statistics of the libraries' operations were not available. Certainly, libraries need researches such as the present one to improve their performance. If library statistics will not be kept because of its importance in internal library decision making, it should, at least, be kept to promote research for library development.

5.4:4 To The NBTE

Accreditation undertaken by the NBTE for polytechnic libraries in Nigeria is commendable. The exercise should be pursued even more vigorously. To make the exercise very effective, each polytechnic library should be visited, at least once every year to ensure that previous recommendations of visitation panels have been implemented. The size of the visitation panel to polytechnic libraries should be enlarged from one to three experienced professionals. One member should represent the Nigerian Library Association, another member should represent COPLIN while the third member should be a consultant on college librarianship appointed by the NBTE on personal merit.

The NBTE should expand the scope of its library assessment for accreditation of Nigerian polytechnics. It is necessary to accredit the polytechnic library based on its effectiveness in meeting the user needs instead of mere availability of resources.

5.5 Suggestion For Further Research

This research found no significant difference between the polytechnic libraries that are adequately staffed and those that are inadequately staffed. This could be because library assistants and attendants play very prominent roles in polytechnic libraries. They were found in the course of this research to man strategic service points like circulation, reserved book section and serials. The attitude of this group of library staff who lack formal professional education and training may have affected the

outcome of the performance assessment by user approach. Many users erroneously see this group of staff as librarians and judge their actions as such.

Since many users of polytechnic libraries are more in direct contact with the library assistants and attendants than the professionals, it is necessary to conduct research on the role of non professionals in smaller academic libraries in Nigeria (polytechnics and comparable colleges). If successfully conducted, the research is expected to come out with revelations and recommendations that will ensure a more effective harnessing of human resources for library services in the colleges.

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CODESRIA - LIBRARY

APPENDIX I

14th March, 1994.

The Chief Librarian/College Librarian,

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.....

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Dear Sir/Madam,

REQUEST FOR COOPERATION WITH MR. NWALO IN HIS RESEARCH PROJECT.

Mr. Kenneth I.N. Nwalo is a lecturer in our department. He is also a Ph.D student under my supervision.

Having worked for some years in a polytechnic library before joining the staff of our department and embarking on his Ph.D degree programme. He is familiar with the problems of Polytechnic libraries. He also knows that relatively few empirical (research) studies have been carried out on the management of Nigerian College and Polytechnic libraries, unlike University libraries. His study on the performance measures for Nigerian College and Polytechnic libraries is therefore expected to make an immense contribution to knowledge in the field.

The study is purely an academic project financed by Mr. Nwalo himself. It is not sponsored by any group or organization. Therefore, I hereby solicit for your cooperation and the support of your staff and library users in making the data collection successful.

Please, accept my gratitude for the anticipated willing and prompt assistance from you to facilitate the project.

Thanks and best wishes.

Yours sincerely,

Briggs. C. Nzotta.

APPENDIX II

Department of Library,
Archival and Information Studies,
University of Ibadan.

24th February, 1994.

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE

The attached questionnaire is being administered to collect data on the performance of your library, with reference to how well it serves the users of the library. Please cooperate by providing appropriate answers. It will take about 20 minutes only to complete the questionnaire.

The questionnaire is in two sections (Section A and Section B). You are requested to answer both parts. If your answer to question 4. is "No" proceed to answer Question 5 and stop there. Then return your questionnaire.

But if your answer to Question 4 is "Yes", ignore Question 5 and proceed to answer all other questions in section A and B. Then return your questionnaire as verbally instructed.

Thanks for your cooperation.

K.I.N. Nwalo,

Yours sincerely,
(Doctoral Student)

SECTION B: PERFORMANCE RATING OF THE LIBRARY
B1. COMMENTS ON STATEMENTS ABOUT THE LIBRARY

Below are statements about various aspects of library service. For each statement indicate by ticking in the appropriate box whether you:

- a. Strongly Agree (SA)
 b. Agree (A)
 c. Are Undecided (UD)
 d. Disagree (DA)
 e. Strongly Disagree (SD)

| | | SA | A | UD | DA | SD |
|----|---|----|---|----|----|----|
| 1 | The library is very quiet all the time | | | | | |
| 2 | The library provides quality reference service always | | | | | |
| 3 | The library's reference collection is of poor quality (below average). | | | | | |
| 4 | The library's public catalogue is dependable. | | | | | |
| 5 | The library's public catalogue is difficult to use. | | | | | |
| 6 | Staff of the library are un-friendly while attending to library users. | | | | | |
| 7 | The library provides relatively cheap photocopying service. | | | | | |
| 8 | The audio-visual materials required by the library users are often not available in the library. | | | | | |
| 9 | The library lacks functional audio-visual equipment (e.g projectors). | | | | | |
| 10 | The library staff are very helpful to users at all times. | | | | | |
| 11 | The library users find it difficult to locate needed materials available in the library. | | | | | |
| 12 | The library has quality collection in all subject areas of interest to the polytechnic. | | | | | |
| 13 | The interest of all categories of library users has been adequately protected by the reading space provided | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 14 | The library has adequate seminar/conference room(s) | | | | | |
| 15 | Many books (over 40%) on the library shelves are disorderly | | | | | |
| 16 | The library has made adequate provision for use of audio-visuals. | | | | | |
| 17 | The atmosphere for reading/studying in the library is uncomfortable. | | | | | |
| 18 | The library is not spacious enough for users' convenience. | | | | | |
| 19 | The library rarely makes interesting library displays. | | | | | |
| 20 | The library notice boards are helpful to library users | | | | | |
| 21 | The library has efficient system and organization (e.g. fairness in service, timeliness of services, orderliness of the library, competence of staff). | | | | | |
| 22 | The library provides no current awareness services (to call the attention of library users to the latest books of interest acquired, current journal articles, etc). | | | | | |
| 23 | Many of the library's books and serials (over 40%) have ripped off (missing) pages. | | | | | |
| 24 | The library opens/closes on time (i.e exactly when officially stipulated). | | | | | |
| 25 | The library has inadequate toilet facilities for library users. | | | | | |
| 26 | The back issues of serials (journals) in the library are incomplete in most cases (over 75%). | | | | | |
| 27 | Many of the library books and journals (over 40%) recorded in the catalogue are physically not available on the appropriate shelves. | | | | | |

B2: ASSESSMENT OF ADEQUACY OF ASPECTS OF LIBRARY RESOURCES AND SERVICES

Please assess the adequacy of the following services and resources of your library by ticking in the appropriate space provided against each item.

| | | 5 Adeq-uate | 4 Very Adequate | 3 un- decided | 2 Inad- equate | 1 very Inad- equate |
|-----|---|----------------|-----------------------|---------------------|----------------------|------------------------------|
| 28. | Availability of needed books | .... | ..... | ..... | ..... | ..... |
| 29. | Photocopying facilities | .... | ..... | ..... | ..... | ..... |
| 30. | Assistance to library users on interlibrary loans | .... | ..... | .... | ..... | ..... |
| 31. | Number of seats for readers | ..... | .... | .... | .... | ..... |
| 32. | Up-to-date collection in all subject areas of interest to the polytechnic | .... | .... | .... | .... | ..... |
| 33. | Provision for security library users' personal effects | .... | .... | .... | .... | ..... |
| 34. | Directional signs/helpful library guides | .... | .... | .... | .... | ..... |
| 35. | Lighting for reading | .... | .... | .... | .... | ..... |

| | | | | | | |
|-----|--|------|------|------|------|------|
| 36. | Weekend special loan service | .... | .... | .... | .... | .... |
| 37. | Ventilation | .... | .... | .... | .... | .... |
| 38 | Overnight special loan service | .... | .... | .... | .... | .... |
| 39 | Number of fiction, cartoons, news-paper etc. available for leisure reading | .... | .... | .... | .... | .... |
| 40 | Security system to protect library materials | .... | .... | .... | .... | .... |
| 41 | Number of books loaned at a time | .... | .... | .... | .... | .... |

CODESRIA - LIBRARY

B3: LEVEL OF SATISFACTION WITH ASPECTS OF LIBRARY RESOURCES AND SERVICES.

Please indicate your level of satisfaction with the

following aspects of library resources and services by ticking (✓) in the column that best suits your opinion on each item.

| | 5 Very Satisfacto ry | 4 Satisfac tory | 3 un- decid ed | 2 Unsatis factory | 1 very Satisfac tory |
|---|-------------------------------|-----------------------|-------------------------|-------------------------|-------------------------------|
| 42 Availability of journals/magazines and other periodicals needed by the library users | | | | | |
| 43 Number of hours the library is open to users daily | | | | | |
| 44 Size of the total library collection | | | | | |
| 45 Reserved book service | | | | | |
| 46 Book loan duration for all categories of users | | | | | |
| 47 Period of book reservation service (when returned by a borrower) | | | | | |

B4: ASSESSING OVERALL PERFORMANCE OF THE POLYTECHNIC LIBRARY

48. Please assess the overall performance of the library by ticking () in the box

that suits your opinion out of the options provided.

- a. Very Good ()
- b. Good ()
- c. Undecided ()
- d. Bad ()
- e. Very bad ()

You may wish to comment freely on the overall performance of your polytechnic library in the space provided below.

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Thank you.

Please return questionnaire as verbally advised.

CODESRIA - LIBRARY

APPENDIX III

Department of Library, Archival
and Information Studies,
University of Ibadan, Oyo State.

24th February, 1994.

Dear Sir/Madam,

Research Questionnaire

Your library is among others chosen for research on how to improve the performance of polytechnic libraries in Nigeria. Your co-operation in providing answers to questions in the attached questionnaire will be a major contribution to the study and will be greatly appreciated.

Please note that independent completion of the attached questionnaire by each respondent will be most useful to the study.

Thanks for your co-operation.

Yours sincerely,
K.I.N. Nwalo
(Doctoral Student)

CODESRIA - LIBRARY

ix. Other (please specify):

5. Professional Experience:

- i. Over 20 year ()
- ii 16-20 years ()
- iii 11-15 years ()
- iv. 6-10 years ()
- v. 3-5 years ()
- vi. 1-2 years ()
- vii. Below 1 year ()

6.(a) Number of librarianship seminars/workshops/conferences attended outside your polytechnic but you were sponsored by your polytechnic (library) in:

1990-91 session

1991-92 session

1992-93 session

(b) If you did not attend any in the above three sessions, please indicate so

.....

7. Number of librarianship seminars/workshops/conferences organized by your polytechnic and which you attended in:

1990-91 session

1991-92 session

1992-93 session

SECTION B: PERFORMANCE RATING OF THE LIBRARY**B1: COMMENTS ON STATEMENTS ABOUT THE LIBRARY**

Below are statements about various aspects of library service. For each statement indicate by ticking in the appropriate box whether you:

- a. Strongly Agree (SA)
- b. Agree (A)
- c. Are Undecided (UD)
- d. Disagree (DA)
- e. Strongly Disagree (SD)

| | | SA | A | U D | DA | SD |
|---|--|----|---|--------|----|----|
| 1 | The library is very quiet all the time | | | | | |
| 2 | The library provides quality reference service always | | | | | |
| 3 | The library's reference collection is of poor quality (below average). | | | | | |
| 4 | The library's public catalogue is dependable. | | | | | |
| 5 | The library's public catalogue is difficult to use. | | | | | |
| 6 | Staff of the library are un-friendly while attending to library users. | | | | | |
| 7 | The library provides relatively cheap photocopying service. | | | | | |
| 8 | The audio-visual materials required by the library users are often not available in the library. | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 9 | The library lacks functional audio-visual equipment (e.g projectors). | | | | | |
| 10 | The library staff are very helpful to users at all times. | | | | | |
| 11 | The library users find it difficult to locate needed materials available in the library. | | | | | |
| 12 | The library has quality collection in all subject areas of interest to the polytechnic. | | | | | |
| 13 | The interest of all categories of library users has been adequately protected by the reading space provided | | | | | |
| 14 | The library has adequate seminar/conference room(s) | | | | | |
| 15 | Many books (over 40%) on the library shelves are disorderly | | | | | |
| 16 | The library has made adequate provision for use of audio-visuals. | | | | | |
| 17 | The atmosphere for reading/studying in the library is uncomfortable. | | | | | |
| 18 | The library is not spacious enough for users' convenience. | | | | | |
| 19 | The library rarely makes interesting library displays. | | | | | |
| 20 | The library notice boards are helpful to library users | | | | | |
| 21 | The library has efficient system and organization (e.g. fairness in service, timeliness of services, orderliness of the library, competence of staff). | | | | | |
| 22 | The library provides no current awareness services (to call the attention of library users to the latest books of interest acquired, current journal articles, etc). | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 23 | Many of the library's books and serials (over 40%) have ripped off (missing) pages. | | | | | |
| 24 | The library opens/closes on time (i.e exactly when officially stipulated). | | | | | |
| 25 | The library has inadequate toilet facilities for library users. | | | | | |
| 26 | The back issues of serials (journals) in the library are incomplete in most cases (over 75%). | | | | | |
| 27 | Many of the library books and journals (over 40%) recorded in the catalogue are physically not available on the appropriate shelves. | | | | | |

B2: ASSESSMENT OF ADEQUACY OF ASPECTS OF LIBRARY RESOURCES AND SERVICES

Please assess the adequacy of the following services and resources of your library by ticking in the appropriate space provided against each item.

| | | 5 Adequate | 4 Very Adequate | 3 un-decided | 2 Inadequate | 1 very Inadequate |
|-----|---|---------------|--------------------|-----------------|-----------------|----------------------|
| 28 | Availability of needed books | .... | ..... | .... | ..... | .... |
| 29. | Photocopying facilities | .... | ..... | ..... | ..... | ..... |
| 30. | Assistance to library users on interlibrary loans | .... | ..... | .... | ..... | .... |
| 31. | Number of seats for readers | ..... | .... | .... | .... | ..... |

| | | | | | | |
|-----|--|------|------|------|------|------|
| 32. | Up-to-date collection in all subject areas of interest to the polytechnic | .... | .... | .... | .... | .... |
| 33. | Provision for security of library users' personal effects | .... | .... | .... | .... | .... |
| 34. | Directional signs/helpful library guides | .... | .... | .... | .... | .... |
| 35. | Lighting for reading | .... | .... | .... | .... | .... |
| 36. | Weekend special loan service | .... | .... | .... | .... | .... |
| 37. | Ventilation | .... | .... | .... | .... | .... |
| 38. | Overnight special loan service | .... | .... | .... | .... | .... |
| 39. | Number of fiction, cartoons, newspapers etc. available for leisure reading | .... | .... | .... | .... | .... |
| 40. | Security system to protect library materials | .... | .... | .... | .... | .... |
| 41. | Number of books loaned at a time | .... | .... | .... | .... | .... |

B3: LEVEL OF SATISFACTION WITH ASPECTS OF LIBRARY RESOURCES AND SERVICES

Please indicate your level of satisfaction with the

following aspects of library resources and services by ticking () in the column that best suits your opinion on each item.

| | 5 Very Satisfactory | 4 Satisfactor y | 3 un- decided | 2 Unsatisf c-tory | 1 very satis- factory |
|-----|--|-----------------------|---------------------|-------------------------|-----------------------------|
| 42 | ..... | ..... | ..... | ..... | ..... |
| | Availability of journals/magazines and other periodicals needed by the library users | | | | |
| 43 | ..... | ..... | ..... | ..... | ..... |
| | Number of hours the library is open to users daily | | | | |
| 44 | ..... | ..... | ..... | ..... | ..... |
| | Size of the total library collection | | | | |
| 45 | ..... | ..... | ..... | ..... | ..... |
| | Reserved book service | | | | |
| 46 | ..... | ..... | ..... | ..... | ..... |
| | Book loan duration for all categories of users | | | | |
| 47. | ..... | ..... | ..... | ..... | ..... |
| | Period of book / reservation service (when returned by a borrower) | | | | |

B4: ASSESSING OVERALL PERFORMANCE OF THE POLYTECHNIC LIBRARY

48. Please assess the overall performance of the library by ticking (✓) in the box that suits your opinion out of the options provided.

- a. Very Good ()
- b. Good ()
- c. Undecided ()
- d. Bad ()
- e. Very bad ()

You may wish to comment freely on the overall performance of your polytechnic library in the space provided below.

.....
.....
.....
.....

Thank you.

Please return questionnaire as verbally advised.

CODESRIA - LIBRARY

APPENDIX IV

Department of Library, Archival
and Information Studies,
University of Ibadan, Oyo State.

24th February, 1994.

The Chief Librarian/College Librarian

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Dear Sir/Madam,

Your library is among others chosen for research on how to improve the performance of polytechnic libraries in Nigeria. I shall be grateful if you will supply the information requested in the attached questionnaire as part of your continued contribution to the development of polytechnic and college libraries in the country.

Please also complete Questionnaire II designed for all the libraries' professional and para-professional staff. All information volunteered will be used for purely academic purpose.

Where applicable, kindly attach extra information sheets/documents. I am prepared to pay for the cost of all photocopies made in the process of providing the answers if the need arises.

Thanks for your co-operation.

Yours sincerely,

K.I.N. Nwalo
(Doctoral Student)

QUESTIONNAIRE III

MANAGEMENT INFORMATION FROM THE HEADS OF POLYTECHNIC LIBRARIES IN NIGERIA

1. When was your polytechnic library established?

.....

Where is your central library operating?

(a) Permanent site () (b) Temporary Site ()

2. What is the number of registered library users for the following sessions:

i. 1990/91 session: Staff Students

ii. 1991/92 session: Staff Students

iii. 1992/93 session: Staff Students

(If you have registered other users please indicate and specify figures for each of the sessions)

3. How many users can the library seat at a time?

4. What was your library's budget for each of the following years and how much was actually released?

| | Library Budget | | Actual Money Released | |
|----------------------------|----------------|-----------|-----------------------|-----------|
| | Capital | Recurrent | Capital | Recurrent |
| i. 1990/91 session | | | | |
| ii. 1991/92 session | | | | |
| iii. 1992/93 session | | | | |

5. If your students pay library fees, please state how much per student.
- i. 1990/91 session
 - ii. 1991/92 session
 - iii. 1992/93 session
6. Who controls these fees (the library or the administration)?
.....
7. Are you satisfied with the present situation regarding the control of library fees?
- (a) Yes () (b) No ()
8. If you are not satisfied, what are your recommendations?
- i. All library fees collected should be controlled by the polytechnic librarian. ()
 - ii. At least 50% of the library fees should be allocated to the library for its operations ()
 - iii. Library fee should be collected directly by the library ()
 - iv. Other(s) (please specify)
.....
10. What was your polytechnic's total budget for the following periods? (please give estimates if actual figures are not within reach).
- i. 1990/91 session
 - ii. 1991/92 session
 - iii. 1993/93 session

11. What gifts/donations in cash and or in kind did your library receive for the following periods? (please state total titles and volumes if applicable).

| | Cash | A-V Material | Book volume | Serials Titles |
|----------------------------|-------|-----------------|----------------|-------------------|
| i. 1990/91 session | | | | |
| ii. 1991/92 session | | | | |
| iii. 1993/93 session | | | | |

(Please attach additional materials if need be)

12. What is the size of your library's stock?

- (a) Books
- (b) A-V materials
- (c) Serials titles

13. At what periods does your library open to users on the following days?

Monday-Friday

Saturday

Sunday

Public holidays

14. Do you feel your library has adequate number of librarians?

(a) Yes () (b) No ()

15. Does your library have adequate number of library officers?

(a) Yes () (b) No ()

16. How satisfied are you with the performance of all your librarians and library officers, given their qualifications and experience?

i. Very satisfied with all staff ()

- ii. Satisfied with all staff ()
- iii. Not satisfied with some staff? ()
- iv. Not satisfied with any staff ()

17. When last did you comprehensively measure the performance of your library?

.....

18. What is your method of assessing your library's performance?

- i. Statistics of output ()
 - ii. Operations Research ()
 - iii. Library standards ()
 - iv. Survey of user satisfaction ()
 - v. Others (please specify)
-

19. In what ways do you feel the performance of your library could be enhanced?
(More than one option may be chosen as applicable)

- i. Increased funding ()
 - ii. Better resources allocation and management within the library ()
 - iii. Hiring more personnel ()
 - iv. More in-service training for existing staff ()
 - v. Accelerated promotion of deserving staff ()
 - vi. Others (please specify)
-
-
-
-

Thank you.

Please return the questionnaire to your secretary.

APPENDIX V**USERS' COMMENTS ABOUT THEIR POLYTECHNIC LIBRARIES
(II) LAGOS STATE POLYTECHNIC ISOLO LIBRARIES**

1. "The library is averagely commendable but the books are outdated and mostly not useful in this current generation".
2. "Daily newspapers made available are insufficient and most books in the library are outdated. More textbooks on law should be supplied to the library and more effort should be made for electricity supply. They are good and efficient".
3. "The space in the library is not enough to satisfy its users and also they are many outdated textbooks on the shelf which cannot satisfy our need as users."
4. "The school should provided more chairs to the library and repair all the fans that are not working presently or even provide airconditioners as found in other schools [Polytechnic Libraries]. Also the school should provide more books (current ones) for the students and lecturers' use".
5. "The polytechnic (Library) stores outdated books and they are not well arranged. The overall services rendered by the Polytechnic is not something to write home about. Needs improvement".
6. "I will beg the school to provide new and CURRENT TEXT BOOKS for use in the library".
7. "Lagos State Poly library performs creditably well compared to other

institutions' libraries, it is moving up to perfection. Needs more improvement. It is good enough".

8. Basically, Lagos Poly Library are really trying their possible best within the limit of material available in their disposal to satisfy the demands of the students. Also the staff are people of integrity. The courtesy is there as their friendly approach is second to none".
9. The library block is situated between classroom blocks and often time noisy; no journals, newspapers are available, lacks (enough) reading space, more materials should be provided and library workers should be properly paid and promptly to enhance their efficiency".
10. "Good enough but there is room for improvement so as to encourage forthcoming students to be interested in using the library".
11. "The Library is situated in the route of low flying aircrafts. This causes very noisy atmosphere in the library. The library should be protected from noise".
12. Some staff of the library hawk and advertise their wares in the library thereby distracting the students".
13. "There are no enough books in the library especially current books. The library during examination period does not house most students and beside most of the chairs are broken".

**SALAWU ABIOLA MEMORIAL LIBRARY OGUN STATE POLYTECHNIC
ABEOKUTA.**

1. There is the need for weekend services which is presently not available".
2. The property of the library users (i.e folder, bag etc) are not properly secured. If such items are stolen, the school authority would not have any sympathy for the owner".
3. "More journal are needed especially in the sciences. The journals are lacking in the library".
4. "One of the aspects of the library services that thrills me is the ready availability of cheap and reliable photocopying services. However, its shortcoming has been inadequate means of detecting people that do damage to the library materials during the very act".
5. "The library should be updated with all reference materials needed by users and there should be assistance to users on interlibrary loans.."
6. In the absence of power supply, the library becomes stuffy and no adequate ventilation since there is no generator to make use of Reading eventually becomes boring".
7. It will be much appreciated if the number of hours the library is open to users could be extended to 6.p.m. because of students like us in science laboratory technology. We normally start lecture in the morning and close from 4-5p.m daily".

8. One aspect I'll love the polytechnic authority to give consideration is lending books to students. Also, during exams, many students do come to read, hence more chairs should be provided in the library".
9. "The library is not well equipped with books necessary for students. Electricity supply in the library is affecting the students. Almost 3-5 hours of blackout occur in the library everyday".
10. "I am very happy with the questionnaire you have brought for me this afternoon to raise my hopes. I want all librarians to put more effort to win more glory on their job. Again we lack enough textbooks on Mechanical Engineering".
11. "I wish students should have the opportunity of borrowing books from the library. Also, I haven't set my eyes on magazines since I've been coming here. I wish the authorities should bear that in mind".
12. "They should extend closing hour to say 8 or 9p.m so that part-time students could also have access to the library. They should also open on weekends".
13. "Although the library is good but there are no chances of borrowing books".
14. "All over the years, the polytechnic library have been performing their services so excellently to all the students and I wish them more grease to their elbows".
15. "... the facilities in the library are better but the problem is that the duration of service is short. They close too early".
16. "The library should operate for 24 hours daily so that students would read overnight".

17. "Thanks to M.K.O Abiola for building and supporting the library".
18. "The library should loan books to students even if it will accept recovery deposit".
19. "The polytechnic library can still improve by buying and providing more current textbooks, journals, magazines and newspapers".
20. "Generally, the staff in the library are helpful. But more should be done about the security of both school and personal properties. Obviously the library users are to blame for the loss of all properties but adequate security should be provided. It is not good for the image of the school at large for personal and school properties to be continuously tempered with. They should also do something about the stinking toilets".

ISA KAITA LIBRARY, KADUNA POLYTECHNIC

1. "On the whole, the library services have been satisfactory except for the photocopying facilities lacking and duration of time should be extended especially in the nights/weekends".
2. "Among all the libraries that I have tried, Kaduna Polytechnic is one of the best in terms of availability of text books, services enough seats and good ventilation and quietness".
3. "Generally there is lack of accountancy books/journals and the library is not providing photocopying service".

4. "So far, so good. But I hope they could improve on books for entertainment like magazines, cartoons and audio-visual equipment and materials".
5. "Kaduna Polytechnic Library is not very secured although the atmosphere is conducive for reading. They open and close the library on official time".
6. "The library is only convenient for one's own personal reading and not quite adequate for research. Its security on its books is weak. It needs to lighten up".
7. The Polytechnic library lacks professional books most especially for my field of study. It seems the staff are untrained. In fact, if the library must live up to expectation, a lot of work has to be done, if possible, overhaul.
8. "The Kaduna Polytechnic has the best and modern library facilities, it also has modern books for students use in any department:.
9. "The management has done so much by providing a big library but what is most important is maintenance".
10. "The library should inform users whenever the important materials needed become available. They should also provide better security for library books and users' personal effects".
11. "The overall performance of the Kaduna Polytechnic library is good but the size of the library is very small to the extent that during examination it can hardly contain 10% of the students".
12. "The unit library (CABS) has no provision for photocopying machine at

subsidized rate. Users/Library staff relationship needs to be improved. Reading space is not always adequate mostly during examination period".

13. "The library is trying but the security is not good enough. Also cleaning of the environment is not up to expectation".
14. "The library performances have not been very encouraging, most especially the security of the library. But then, there is adequate space for reading".
15. "The shelves in our Unit Library (CABS) are stocked with outdated texts. Not much is spent in acquiring modern and up to date texts in various subjects. Although texts are very expensive now, some effort would have to be made".
16. "The library's performance is commendable except that we need more books relevant to our intermediary level. We also need photocopying machines and airconditioner".
17. "The library services are not all that bad, although there's the need for the library staff to improve on the availability of needed books, keeping to the stipulated time for closing, etc:.
18. "Students are unnecessarily harassed by the library workers especially those on the (afternoon) shift duty by asking the students to leave before official closing hours is due".
19. "The library is supposed to extend its closing hour to 7.00pm during the week days instead of the present 5.00 pm. This will enable most of the students to enjoy the library facilities as some of the students combine civil service job

with academics".

20. The services provided by Kadunna Polytechnic especially in the CABS are effective but not generally very effective. Toilets should be provided, more books are required, and the library needs examination".
21. "The Kaduna Polytechnic Management Board should please increase the staff of the library working strenght. The library is very big with few workers. If the staff working strength is increased the books will adequately be maintained".
22. "The overall performace of the polytechnic library is good, only that the security for the users belongings is totally poor, because there is no provision for identifying the real owner of, e.g. a bag or file when leaving the library:.
23. "The available textbooks have helped the users to elevate their academic performance in their field of specialization. Both the users and the library authority live in harmony".
24. "My regard goes to Federal Government and Kaduna Polytechnic Management for making this library very interesting and lively for reading at any time. That is why there is absence of students' riot in the institution".
25. "It is spacious, well ventilated and lighting, adequate".
26. "The services of the library is fair enough to satisfy the hardworking students. But the carelessness of the workers who pack books in the form not expected and this must be checked.

27. The Polytechnic library offers average satisfactory services except that their book in the circulation section are not serially arranged for easy location. I do hope they can endeavour to arrange the books in good sequence, of course".

KATSINA POLYTECHNIC LIBRARY

1. "The library has very few books while useful journals in education are not available. In case of the available texts, they are colonial books, outdated... I only come to the library to read my notes and go through my handouts. Whenever I have a big research to do I use to go to Federal College of Education, Katsina or Kaduna Poly. Before you can successfully do any serious class assignment, you must travel out of the school or even the state. Most of the books available in the polytechnic library on social, economic and administrative issues are meant for European countries and not African states".
2. "They (Library Staff) are partial to the users. The staff themselves disturb the users with unnecessary noise and jokes with their girl friends. The library typist disturbs us as well with her machine while typing in the library. You cannot borrow more than one book at a time while the reference books are not allowed to be taken out. And your staying in the library for research can only be determined by the wish of the attendant because they close at anytime they wish as long as the Chief Librarian is no longer around".
3. "There are some aspects that are yet to function satisfactorily in the library like the photocopy section and projectors. We are looking forward for government

assistance on these facilities".

4. "The library is in dire need of enhancement in terms of materials, books, journals, etc."
5. "The overall performance of my library is satisfactory because their services and the nature of books they have in the library has made me develop interest in reading in the library at all time".
6. "The services provided by the library is very poor and indeed woeful. This is due to lack of qualified staff, lack of current books and adequate seats for the library users".
7. "The institution is in need of a larger library to be named as Central Library (CL) so that all the books needed by the students will be available. Security is also needed in the library".
8. "They lack management and organisation. They provide no current awareness services, there is no latest book of interesting and current journals".
9. "The library should be opening by 7.30 am. and close by 10.30pm. from Monday to Thursday, and 7.30am. to 8.30pm on Fridays and Saturdays. Research or Reference section should be created and also fans or airconditons should be sufficient in the library".
10. :The performance of my library concerning Science Department is not satisfactory. Some of the needed items are not available. And the users often make noise to disturb others especially at night".

11. "The library is unsatisfactory especially for those of us in Agric which is separate from the main campus. They are not providing most of our needs at all".
12. "The polytechnic library is fairly equipped, only that most of the books are missing or hidden in the library. However, the workers are working effectively".
13. "The library is ill-equipped with necessary academic journals and other reading facilities. The security and guide facilities are too porous for students and library facilities".
14. "Infact, the performance of my polytechnic library is good and not very good because there is no social activities like functional audio-visual equipment".
15. "Overall performance of the institutions's library is generally good. Though problems do occur, sometimes when you go to library to write assignments, you tend to find people in groups, making noise, they say it's group discussion. Library is not a place for that".
16. "Even though human needs are usually not always satisfied, the polytechnic library is trying its best to assist its users".
17. "The performance of our library is very poor, because the librarians have no current knowledge on their jobs. The polytechnic authority shows less concern on that".
18. "You've written almost all the necessary information and I answered them

accordingly. But moreover, the librarians do not have knowledge on library.

I mean, the purpose of their work".

KANO STATE POLYTECHNIC LIBRARY

1. "The library should be provided with the necessary facilities needed in order to make it adequate. This means that notice of the facilities not available should be very adequate".
2. "I will definitely not forget to say it frank that I was once attend [(attended to)] and shouted [(on)] like animal in our library. It has not been very conducive because of more noise markers. No printing book, no any essential books that cost much".
3. "The Polytechnic library needs more reference books and magazines and daily newspapers".
4. "The overall performance in the Polytechnic library is good and the most important is having adequate books and good relationship between the library staff and students".
5. "The library is too poor. No modern books in science and technology discipline and everybody is complaining".
6. "Everything is going wrong about the Polytechnic library. The books, journals and magazines expected are not around and the place is very dusty and stuffy.

Only very few chairs they have and people are making noise all the time".

7. "The overall performance of the library is fair but they should visit other libraries to know what is happening there. Everything here is very old and scarce".
8. "The library's arrangement is very good but it has problem of lacking enough books".
9. "Our Collegé of Agriculture library is ill-equipped. There are no current books, journals or even newspapers. We don't see audio-visual materials at all yet Agric is very important".
10. "The library is very hot and dust covered everywhere. All the books are old and do not suffice for doing class assignments. No toilets in the library that somebody will use".

AKANU IBIAM FEDERAL POLYTECHNIC, UWANA AFIKPO LIBRARY

1. "The library is not big enough to serve the students' population special space should be provided where lecturers and HND students should be reading as is done in other institutions.
2. "The Polytechnic library is nothing to write home about. It needs a lot of improvement so as to reach the level of other libraries in other higher institutions".
3. "The overall performance of the Polytechnic library, though not 100% excellent

is somehow above average mark. This is taking into consideration the none availability of some of the required services, both human and material due to lack of fund".

4. "There is great improvement on the services rendered by the Polytechnic library, unlike before when the new building was not in place".
5. "The performance of the library services is good. More seats need to be provided for readers. Photocopying services should be improved, security of library user's personal effects is just inadequate and needs more improvement".
6. "The performance of the library is below standard and the facilities available for the running of the library is inadequate".
7. "They should employ more competent staff and provide other facilities like seats, modern textbooks, cartoons and audio-visual materials".
8. "The overall performance of the library is very poor and these are no books available, no adequate reading space, etc.".
9. "They fail to borrow (lend) books to year one students (NDI) not until you're in year two (NDII). Finally, they should provide enough seats.
10. "The library is quite functional and the librarians are co-operating with the users".
11. They are not really adequate as sometimes you have to wait for another student to finish using a particular book before you can take it for use".
12. "Though faced with the constraints of finance, the polytechnic library services

are grossly inadequate when compared to the number and reading requirements of the students".

13. "The library is operating on a medium scale basis and there is need to improve on some of its services to make students more eager and comfortable to study".
14. "Our polytechnic library lacks many current textbooks most especially in the field of engineering Their security services pertaining to library users' bags is nothing to write home about".
15. "Compared to what I have been seeing in other institutions' library, ours is not anything to write home about, no single student can boast of reading in the school (Polytechnic) library to his/her own satisfaciton".
16. "My comment on the overall performance of my polytechnic library is that they open very late, around 9-10am and close sometimes by 6.00 p.m or 8.00 pm. and that is why I said the performance is very bad".

FEDERAL POLYTECHNIC, NEKEDE, OWERRI LIBRARY

1. "Assessing/the overall performance of the Polytechnic library, in terms of services provided by the staff it is satisfactory but the size of the library, availability of some textbooks required especially in engineering courses are not satisfactory".
2. "The library lacks many current books on current issues. There is complete absence of newspapers. It is sad for a Fed. Poly to lack such facility".

3. "I am of the opinion that the Federal Polytechnic Nekede Library should be improved to meet the standard it is meant for".
4. "The library's efficiency and performance is reduced by the size and volume of books/journals available. Generally, the staff are cordial and willing to assist library users when in need".
5. "The overall performance of the library is not very bad, but adequate efforts should be made to enhance the security of books in the library".
6. "Library Experts should suggest to Government a way out of the current problems in our library".
7. "The Polytechnic needed to be visited by a seasoned, qualified librarian to educate and establish a true, informative, resourceful and purposeful library instead of the mushroom type they orchestrated as library. It is no library at all".
8. "The Federal Government should be involved in the maintenance of the library by providing them books and enough space for the users".
9. "The library has very old textbooks. Also the management is not even willing to stock modern textbooks. Borrowing policy is however good on the few books they have".
10. "I believe, with the availability of fund, equipments like Audio-Visual aid, photocopying machine, etc. which are presently lacking will be provided and thereby enhancing the performance of the library".

11. "The Polytechnic library needs to be reorganised for proper utilisation. The performance is very poor compared with other libraries in higher institutions".
12. "I wish to comment on the inadequacy of reading chairs for the students. Please try and do some arrangement carryout an assignment given to us, the students".
13. "Some of the textbooks in the library are outdated. There are no current magazines, newspapers and professional journals for alterencing. The number of seats are inadequate and this library is at times noisy".
14. Infact, the institution is yet to have a standard institutional library. What we have presently is a make-shift readting class".
15. "It's a great pleasure to be giving this oppportunity to comment on the performance of my polytechnic library. I may give the library a pass mark but what baffles me most is lack of current books in the library. Any improvement on this will give the library very good mark.
16. "The performance is fair but there is still inadequate staff, infrastruture and dearth of current books and journals in many academic fields".
17. "Generally not up to the standard of a departmental library. Available books are outdated".

FEDERAL POLYTECHNIC BAUCHI .

1. "The library is good enough ... because it provides almost all the text-books needed by me in my field of study. I think the only thing needed is the provision of space for expansion so that more books can be displayed:.

2. "To say without any grudges, the library is doing her best. The only lagging thing is the capacity of the library and lack of sufficient books in my discipline (Agricultural Engineering).
3. "The services of the library at present is commendable. However, a little more efficiency will produce excellent services".
4. "The library provides good services to the library users".
5. "There should be provision of electricity supply in the library always".
6. "The library should be extended, enough seats should be provided, negative attitudes of the Chief Librarian to students should be improved. Encourage manpower development in the library so that they will perform better".
7. "This library needs a lot of improvement in order to achieve its aim. I recommend that the services be elevated and reading condition improved, so that there will be joy in reading".
8. "I will only ask for more improvement in all aspects of the performance of the library, including the staff relationship with the users".
9. "Performance of the library is poor, efficiency is low, organisational structure is unsatisfactory and moreover, attendance of staff to students is not encouraging".
10. "I appeal to the school authority to make sure that textbooks are provided for all courses being offered in the school (Polytechnic). And to make necessary arrangement to build an ultra modern library as their counterparts".

11. "Some of the books on the shelves are found covered with dust; this indicates that only very few students are using the library effectively".
12. "The library needs to be expanded both in terms of books, shelves and sitting chairs or reading space. It is too small compared to the teaming number of users. The exit is only one. In the presence of danger, our lives are not safe.
13. "The Polytechnic library is of great value to the users. The libararians are always handy to help in getting books from the shelves, even the Chief Librarian's own personal assistance to the users can never be over emphasised".
14. "Some of the library staff are arrogant. At times, if you request for a book they may not attend to you fully. But the senior officials are helpful, caring and easy going.

FEDERAL POLYTECHNIC, MUBI LIBRARY

1. "Overall performance, below average. Materials available, highly inadequate. Services from staff, very unsatisfactory. They cannot even keep any catalogue of their small collection, and even though they have areas designated for departmental collections, books are often found anywhere in the shelves, irrespective of the department (discipline).
2. "Yes, about the duration of time, we don't normally have enough time to read in the library. To my suggestion, the library should be open from Monday to Sunday so that students will be satisfied in reading and reference".

3. "The Staff in the circulation are the best of all, why because they can help students as well as possible, e.g. checking the books on the shelves for students, answering some questions for students and explaining things to students".
4. "There are available specialised books through there is room for improvement. Also the possibility of passing books out of the library through the windows have no net cover".
5. "Indeed the library is trying to help the users but it needs photocopying machines to help students".
6. "My comment is a question: What happens to books disappearing from the shelves just like that in the so called Reserved Section of the Library? You see a book now, in the next few hours, it is not there, not even being currently used by readers in the hall".
7. "The Polytechnic library has adequate books and other learning materials, but it is good for the polytechnic library to have audio visual materials and computer for effective services."
8. "As a matter of fact, the federal polytechnic library has grown to its tolerance range. However, effort should be made for the provision of more textbooks. Moreover, I appeal to the Federal Polytechnic to aid the Librarian to repair the water system toilet in the library".
9. "The library of F.P.M. is a very standard one, but in terms of building, floor-space, lighting, ventilation, book binding and borrowing services. On the other

hand, it is lacking the qualities of modern library in terms of collections, audio visual, fiction cartoons, photocopying machines, etc. generally".

10. "Library is the only key (saviour) of students who may like to acquire knowledge. As such it should be open at all times (i.e. 8a.m. to 11p.m.) daily just as the hospitals do..."
11. "The performance of the library in my school is good in some aspects but they need to improve in some areas like provision of more current textbooks, periodicals and journals to all departments (disciplines) especially Mechanical Engineering Department. They should also abolish the 'I don't Care' attitudes which they regularly exhibit whenever there is power failure".
12. "The generally performance of the polytechnic library is fair. I wish to comment on the conduct of some of the library staff; some of them need to be reorientated so as to maintain a sense of direction through understanding why they are working in the library".
13. "Secondary, the library service hours should be increased on weekends because students tend to have more time for private reading and assignments during the weekends".
14. "The overall performance of the polytechnic library is good except that the authority concerned should do something about provision of international magazines and journals for leisure time".
15. "The library doesn't exist in the polytechnic since there are no books to read".

16. The Chief Librarian is most unfriendly and sometimes chases students out of the library".
17. "The library seats are uncomfortable and are back aching... The staff are sometimes very unfriendly to students (especially the Chief Librarian). No suggestion letter box and the library attendants sometimes make noise".
18. "Library users have always been told that books in the reference section don't get removed. But it is appalling how one finds a good reference material or book at a time, or on a day only not to find such books a few hours or days after. What may be the explanations for such disappearances?"

THE POLYTECHNIC, CALABAR LIBRARY

1. "In a nutshell, I think there is no existed of anything called a tertiary library in the polytechnic because if at all it is available, then the plan for it is a complete failure because everything about it is achaic"/
2. "The polytechnic library needs fund to enable them purchase more books".
3. "The facilitates needed in the library are not adequately supplied. Consequently students are being discouraged from like to do in the library".
4. "The government should try to improve the quality of the library because many books needed by the students are not there."
5. "The skeletal service provided is not enough. However the library can do better

if given support by the administration."

6. "The staff are always helpful to the users of the library. Books are inadequate and seats are also not adequate".
7. "As a constant user of the polytechnic Calabar library, I wish to say that the library is not meeting the desires and standard required by student".
8. "The management is doing its best. I think it is suffering from insufficient fund".
9. "My school [polytechnic] library has been trying its best to satisfy the yearnings of its numerous users that there is room for improvement especially in the areas of security and ventilation".
10. "The polytechnic library is not too bag but I think the library should be extended so that it would be large enough to contain users".
11. "The library staff do loan books that are very useful to people and such books are not returned again. This is why the library has no up-to-date collection for the polytechnic students and users".
12. "The polytechnic library is very bad in the sense that there is no enough text books for the use of students to read and do assignment."
13. "My comment is that the library is not satisfactory, i.e., it is not dancing to the students' tune..."
14. "The entire environment is not convenient for study. To you, the person concerned, write to our Rector and advise him over all these issues as they

affect the students badly. Detect some probable ways of solving this problem to him".

15. "In a nutshell, I will just say that the overall performance of my school [polytechnic] library is bad because the school library is equipped with books of 1960".
16. "Poor conduct of staff, lack of new supply of books, insufficient reading materials irregular light [power] supply".
17. "... more programmes should be geared towards the education of our populace on the importance of library and library service".
18. "Very very unsatisfactory. Getting materials from the library is suffering. No good books in all courses, book shelf not properly arranged. In fact, the library disqualified the school reading system".
19. "I shall say, they have tried fairly on the part of the workers and environment. On the other hand, they need to improve on their collection to gain their full score".
20. "The overall performance of the polytechnic library is extremely disappointing with non availability of the needed materials. I hope they should better close it [the library] down instead of provoking the students daily".

Federal Polytechnic Idah Library

1. "My only comment is that nobody is interested about the upkeep of the library at all".
2. "The library staff are doing their possible best but all the necessary things are lacking unlike other libraries."
3. "There is no enough seats for us to read. Every book found in the library is off current day information, I mean, they are too old for our assignments".
4. "No recently new textbooks, journals, magazines and even newspapers. The toilets are very bad and full of disease if you enter there".
5. "I can say that the polytechnic library is yet to attain the light it is meant for. We are suffering here. Please tell the government to come to our aid".
6. "Our polytechnic library is good. But all the same, they should try and get us new books and provide enough seats especially during exams".
7. "Compared to other libraries I have seen this one is completely a write off nothing is satisfactory and people make noise too".
8. "It is impossible to prepare useful lecture notes based on the resources of the polytechnic library alone. Most lecturers rely on their personal textbooks and hardly bother to enter the library".
9. "Our library is adequately OK according to NBTE standard. They should only buy more books, newspapers, etc., I think it is trying with services".

10. "The few books found in the library are not organised and this wastes time to find something you are looking for. Moreover, the security of library users' personal bags, files, etc. is not safe in the library.
11. "No doubt, the school [polytechnic] library is doing its best with limited facilities. They can do better in performance if money is made available.
12. "The Federal Polytechnic Idah Library and even the whole institution is highly neglected by the Federal Government. In fact, it is just like a primary institution in terms of facilities but academic standard is highly Okay".
13. "I will only ask for more improvement in all aspects of the performance of the library, including the staff relationship with the users".

FEDERAL POLYTECHNIC NASARAWA LIBRARY

1. "So far, the polytechnic library is serving us well. Even the librarians come all out to assist readers in their difficulty."
2. "The library opening hours is not adequate. Please ask them to extent it and also on Saturdays and Sundarys till 10p.m."

APPENDIX VI

BACKGROUND INFORMATION ON THE FOURTEEN (14) POLYTECHNIC LIBRARIES

In this appendix, a more detailed background information on the 14 polytechnic libraries studied has been provided. For brevity, all information about the libraries that have already been provided in the main body of the thesis, for example, staffing and library budgets, have deliberately been skipped in this section.

I. AKANU IBIAM FEDERAL POLYTECHNIC UWANA AFIKPO LIBRARY

Year Established 1982

Library Objective

The main objective of the library is to provide literature support and other library resources that will enable the parent polytechnic achieve its educational, research and community service goals.

Nature of Operation Site

The library is situated in the main campus of the polytechnic. It moved from its temporary make-shift apartment made up of a block originally designed to be a science laboratory to a quasi permanent library building in March, 1994. The new library building is centrally located but does not appear to have been the original design of the Polytechnic Librarian.* It has only one small reading hall housing the circulation, reference and serials

**(The Polytechnic Librarian, Mr. Bob Igbolekwu died a few days before the researcher's visit to the polytechnic for data collection. May his soul rest in perfect peace).*

departments. Very little space was provided as workroom and only a single small office space for the librarian. The library building is very low and poorly ventilated. It has only a single entrance and exit even in time of emergency. Sources close to the library hinted to the researcher that the original design of the library was set aside in favour of the Rector's own conception of what building befits the institution's library.

User Education

No formal course is offered but new students are given library orientation. **Library Fees By**

Students

| | | |
|-----------------|---|------------------------------|
| 1990/91 Session | - | N30 per student, per session |
| 1991/92 Session | - | ₦50 per student, per session |
| 1992/93 Session | - | ₦50 per student, per session |

The fees are controlled by the polytechnic administration which collects all money into a central account and disburses them at the discretion of the Rectors.

The polytechnic library is not satisfied with the arrangement and recommends that at least 50% of the library fees collected should be allocated and actually released to the library to help in its operations.

Library Registration Statistics

| Session | Staff | Students |
|-----------------------------|--------------|-----------------|
| 1990/91 | 114 | 380 |
| 1991/92 | 102 | 335 |
| 1992/93 | 104 | 45 |
| Other Registrations 1991-93 | | 45 |

This is made up of civil servants and other individual workers, trades men and businessmen and women in the locality who come to use the library and were allowed in house use of library facilities. They were, however, given no borrowing rights.

Donations Received Since 1990

| Session | Cash | Book Volumes | Serial | A-V |
|----------------|-------------|---------------------|---------------|------------|
| 1990/91 | NIL | 65 | NIL | NIL |
| 1991/92 | NIL | 116 | NIL | NIL |
| 1992/93 | NIL | 282 | NIL | NIL |

Performance Measurement Practice

The performance of the library was last measured in 1991 by an NBTE visitation panel.

It was measured by library standards.

2. AUCHI POLYTECHNIC LIBRARY

Year Established - 1964

Library Objective

The main objective of the library is to provide literature support to the programmes of the parent polytechnic in technical education, training, research and industrial relations. Its ultimate objective is to complement the efforts of the polytechnic in achieving all the goals for which it was established.

Nature of Operation Site

The polytechnic operates a multi-campus system in Auchi. The polytechnic's main library is located on the main campus while two other college based branch libraries exist in close proximity to the main campus.

Originally owned by the defunct Mid-Western State, Bendel State, and later, Edo State Government, Auchi Polytechnic (and its library) were taken over by the Federal Government of Nigeria in 1992.

Total Seating Capacity for the Library System - 270.

User Education

The polytechnic has a formal course on use of the library. It is a one credit hour course compulsorily taken by all fresh students of the polytechnic as part of General Studies. In addition, fresh students are given library orientation as part of general orientation programme for new intakes.

Library Fees by Students

| | |
|----------------|-----------------|
| 1990/91Session | N20 per student |
| 1991/92Session | ₦20 per student |
| 1992/93Session | ₦20 per student |

The money collected from students' library fees is controlled by the polytechnic' administration. No special allocation for library services is made from the fees, a situation considered unsatisfactory by the library administration.

Library Objective

The main objective of the library is the provision of information in a variety of media and other library resources that can enhance teaching, learning and research in the polytechnic's chosen fields of academic programmes. All the library services are geared towards assisting the polytechnic realise its own objectives.

Nature of Operation Site

The library is located at the centre of the polytechnic in Bida. It is operating at the permanent site purposefully designed for library services. The library administration feels that more staff will be needed in future but the immediate priority is updating of facilities and acquisition of new books and journals. The library administration is satisfied with the performance of all the librarians and library officers.

User Education

The polytechnic's academic programmes includes a formal course on *use of library* as part of compulsory General Studies course, Use of English offered to fresh students. In addition, fresh students are given orientation talk on the polytechnic library, its services, rules and regulations and students' library privileges.

Library Fees By Students

| | | |
|-----------------|---|-----------------|
| 1990/91 Session | - | N10 per student |
| 1990/92 Session | - | ₦10 per student |
| 1990/93 Session | - | ₦10 per student |

The money accruing from library fees is controlled by the administration but put in a special account for library use.

Library Registration Statistics

| Session | Staff | Students |
|--------------------------|-----------|----------|
| 1990/91 | 126 | 485 |
| 1991/92 | 130 | 590 |
| 1992/93 | 118 | 706 |
| Other Registrations from | 1991-1993 | 108 |

This is made up of relations of the polytechnic's staff and responsible people from all walks of life in the locality, including industry and commerce.

Donations Received

| Session | Cash | Book Volumes | Serial | A-V |
|---------|------|--------------|-----------|-----|
| 1990/91 | NIL | 85 | 10 copies | NIL |
| 1991/92 | NIL | 150 | 12 copies | NIL |
| 1992/93 | NIL | 112 | 4 copies | NIL |

4. FEDERAL POLYTECHNIC IDAH LIBRARY

Year Established - 1977

Library Objective

The main objective of the library is to provide literature support to the programmes of the parent polytechnic to enhance realization of the institution's goals.

Nature of Operation Site

The library is operating at its permanent site at the centre of the polytechnic at Idah.

User Education

No formal course is offered on use of the library in the polytechnic. Orientation on use of the polytechnic library is however given to fresh students.

Library Registration Statistics

| Session | Staff | Students |
|-------------------------------|-------|----------|
| 1990/91 | 64 | 502 |
| 1991/92 | 77 | 616 |
| 1992/93 | 62 | 586 |
| Other Registrations 1990-1993 | | 57 |

This group of registered users consists of dependant relations of the polytechnic's staff, public servants and members of the private sector who live in the locality.

Donations Received

| Session | Cash | Book Volumes | Serial | A-V |
|-----------------|------|--------------|--------|-----|
| 1990/91 Session | NIL | 60 | 4 | NIL |
| 1991/92 Session | NIL | 146 | 10 | NIL |
| 1992/93 Session | NIL | 210 | 2 | NIL |

5. FEDERAL POLYTECHNIC MUBI LIBRARY

Year Established 1979

Library Objective

It's main objective is provision of literature support services to enable the parent polytechnic achieve all its objectives. The library's objective is to be achieved through a wide range of bibliographic services in a variety of media.

Nature of Operation Site

The polytechnic commissioned a purposely designed, ultra modern library building in 1993. The library is located at the centre of the polytechnic in Mubi.

User Education

The polytechnic offeres no formal credit hour course on use of the library. However, library orientation is given to fresh students as part of activities for the students' orientation week.

Library Fees By Students

| | | |
|-----------------|---|-----------------|
| 1990/91 Session | - | ₦5 per student |
| 1990/92 Session | - | N5 per student |
| 1990/93 Session | - | ₦10 per student |

The student pays the fees to the polytechnic administration who lodge it in a special account for the library's use. This arrangement is satisfactory to the polytechnic library's administration.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | 114 | 380 |
| 1991/92 | 102 | 335 |
| 1992/93 | 104 | 45 |

Library Registration Statistics

| Session | Staff | Students |
|---------|--------------|----------|
| 1990/91 | Not supplied | 560 |
| 1991/92 | Not supplied | 490 |
| 1992/93 | Not supplied | 803 |

Other Registrations 1990 - 1993 42

This group consists of dependant relatives of the polytechnic staff and other reliable individuals from the locality. They are allowed in house use of library facilities only.

Donations Received

| Session | Cash | Book Volumes | Serial | A-V |
|---------|------|--------------|--------|-----|
| 1990/91 | NIL | 135 | NIL | NIL |
| 1991/92 | NIL | 112 | NIL | NIL |
| 1992/93 | NIL | 68 | NIL | NIL |

6. FEDERAL POLYTECHNIC NASARAWA LIBRARY

Year Established - 1983

Library Objective

The main objective of the library is the provision of resources and readers' services that will support the academic programmes of the parent polytechnic so that its main goals can be achieved.

Nature of Operation Site

The library is operating in a permanent library building in the centre of the polytechnic at the Nasarawa.

User Education

The polytechnic offers a formal course on use of the library. It is a one credit component of the General Studies course, *Use of English* offered compulsorily by fresh students of the polytechnic. Newly admitted students are also given orientation on use of the polytechnic library at the beginning of each academic year.

Library Fees by Students

| | |
|-----------------|-----------------|
| 1990/91 Session | N10 per student |
| 1991/92 Session | ₦10 per student |
| 1992/93 Session | ₦10 per student |

All money accruing from the library fees is paid into the general polytechnic account. The library administration has no control over the money and can only get any allocations at the discretion of the Rector. This situation is unsatisfactory to the library administration. Instead, it recommends that the fees should be paid into a special library account and controlled

by the Polytechnic Chief Librarian.

Donations Received

| Session | Cash | Book Volumes | Serials | A-V |
|---------|------|--------------|---------|-----|
| 1990/91 | NIL | 85 | 10 | NIL |
| 1991/92 | NIL | 166 | 7 | NIL |
| 1992/93 | NIL | 130 | 5 | NIL |

7. FEDERAL POLYTECHNIC NEKEDE-OWERRI LIBRARY

Year Established 1978

Library Objective

The library's objective is to provide learning resources and general bibliographic services in support of the realization of the parent polytechnic's objective.

Nature of Operation Site

The library is operating in a make-shift structure within a block of lecture rooms beside the polytechnic's administrative building. It is not centrally located in the polytechnic but is close to the entrance to the polytechnic.

Before 1992, the polytechnic (and its library) belonged to the Imo state Government. It was taken over by the Federal Government in 1992 when the name changed from polytechnic, Nekede to Federal Polytechnic Nekede. With the take over of the institution by the Federal Government it is hoped that funds will soon be made available for a permanent, purposeful library building befitting the size of the institution and the level and magnitude of

academic and research activities being undertaken. The Federal Polytechnic, Nekede, for example, is one of the very few polytechnics in Nigeria accredited by the NBTE to offer courses in library science up to HND level.

User Education

The polytechnic has a formal one credit hour course on use of the library. It is taught by librarians in the polytechnic library and offered compulsorily by all fresh students under General Studies. Fresh students of the polytechnic are also given library orientation lecture and conducted round the polytechnic library.

Library Fees By Students

| | | |
|-----------------|---|-----------------|
| 1990/91 Session | - | ₦50 per student |
| 1990/92 Session | - | ₦50 per student |
| 1990/93 Session | - | ₦50 per student |

The polytechnic administration, not the library controls the fees paid. The library's administration is unhappy with the situation regarding the control of library fees and recommends that all the fees collected should be controlled by the Polytechnic librarian.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | NIL | NIL |
| 1991/92 | NIL | NIL |
| 1992/93 | 149 | 772 |

Other User Registrations Not Supplied

Donations Received

| Session | Cash | Book Volumes | Serial | A-V |
|-----------------|------|--------------|--------|-----|
| 1990/91 Session | NIL | 200 | NIL | NIL |
| 1991/92 Session | NIL | 1,145 | NIL | NIL |
| 1992/93 Session | NIL | 2,500 | NIL | NIL |

Measurement of Library Performance

The performance of the library has never been partly or wholly measured before by the library itself. The only assessment of the library so far was made by an NBTE accreditation visitation team in 1991. NBTE's yardstick for the measurement of library resources and policies (only) was library standards.

8. ISA KAITA LIBRARY, KADUNA POLYTECHNIC

Year Established - 1960

Library Objective

The Library's main objective is provision of resources and readers' services in support of the primary objectives of Kaduna Polytechnic-teaching, learning and research in vocational and technical education for middle level manpower development.

Nature of Operation Site

The polytechnic has a central library at the main campus situated at Tudunwada and two college based libraries all within Kaduna metropolis. The central library, Isa Kaita Library

is an ultra modern library complex commissioned in 1991. For all intents and purposes, the edifice is a model for tertiary institutions both in Nigeria and overseas. It is also centrally located in the polytechnic.

Total Seating Capacity

The central library can seat 2,500 users at a time while the college based libraries outside the main campus can seat 300 users in all.

User Education

Kaduna Polytechnic has a one credit hour course on Use of the Library as part of General Studies. It is compulsory for all fresh National Diploma and National Certificate of Education (NCE) students to take the course.

The library's user education programme also includes orientation talks to fresh students at the beginning of each session and guided tours of the library.

Library Registration Statistics

| Session | Staff | Students |
|---------------------|--------------|-----------------|
| 1990/91 | 200 | 3,115 |
| 1991/92 | 301 | 4,601 |
| 1992/93 | 322 | 4,140 |
| Other Registrations | 446 | |

This group is made up of relations of the polytechnic's staff and other responsible members of the society in industry, commerce, agriculture and public service. These are allowed in house

use of library facilities only.

Donations Received

| Session | Cash | Book Volumes | Serial | A-V |
|---------|------|--------------|-----------|-----|
| 1990/91 | NIL | 570 | 33 copies | NIL |
| 1991/92 | NIL | 1,500 | 22 copies | NIL |
| 1992/93 | NIL | 2,460 | 20 copies | NIL |

The library benefitted immensely from the Nigeria-United Kingdom Technical Cooperation Agreement under the Four Polytechnic Project.

9. KANO STATE POLYTECHNIC LIBRARY

Year Established 1978

Library Objective

The library's primary objective is to give literature support to the academic and research objectives of its parent polytechnic.

Nature of Operation Site

The polytechnic has no central library. It has three college based libraries scattered all over Kano metropolis. A fourth college library (Agriculture) is located about ten kilometres off Kano. All the college library buildings are make shift structures. The biggest of the four is the College of Science and Technology Library, rusty though it is.

Very strangely, the Ag. Polytechnic Librarian has his office not attached to any of the libraries but part of the central administrative building independently located.

User Education

Orientation is given to fresh students annually on the facilities of the college libraries and how to maximize their use. No formal course is offered by the polytechnic on use of the library.

Students' Library Fees

NIL

Polytechnic Budget

This was not supplied.

Library Budget

"

The Ag. Polytechnic Chief Librarian complained of the library facing attrition in the polytechnic. The library has had no budget since 1990. Very little attention is given to the library by the polytechnic's administration. For example, only about ₦10,000 was provided for library services in 1993.

However, the polytechnic Library received assistance from the British Council to the tune of ten thousand pounds (£10,000) for two years, 1992-1993. The assistance was discontinued after the annulment of the June 12, 1993 presidential election by the Federal Military Government of Nigeria.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | 205 | 850 |
| 1991/92 | 320 | 1,300 |
| 1992/93 | 300 | 2,230 |

Donations Received

1991/92 £10,000

Performance Measurement Practice

The library keeps statistics of output but cannot remember when last it measured its performances.

10. KATSINA POLYTECHNIC LIBRARY

Year Established 1983

Library Objective

The library's main objective is to contribute to the success of the overall polytechnic's goals through provision of literature and other resources and user oriented services for the polytechnic community.

Nature of Operation Site

Katsina Polytechnic has no central library. Instead, it has three college based libraries, two of which are located on the main campus. The third library is attached to the College of Agriculture and Basic Studies situated outside the main campus.

User Education

The polytechnic user education programme consists of orientation lectures and guided tours for newly admitted students. No formal course on use of the library is offered.

Library Fee by Students

| | |
|-----------------|-----|
| 1990/91 Session | ₦20 |
| 1991/92 Session | N20 |
| 1992/93 Session | ₦20 |

Money from library fees is controlled by the polytechnic's administration, a situation unacceptable to the library. The library would prefer controlling all library fees collected.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | 66 | 349 |
| 1991/92 | 84 | 446 |
| 1992/93 | 72 | 497 |

Performance Measurement Practice

The library keeps statistics of its operations. These statistics are also supplied to the polytechnics Research and Statistics Unit headed by a Director. In real terms, the library's performance has never been fully measured before.

11. LAGOS STATE POLYTECHNIC ISOLO LIBRARY

Provision of literature support to the programmes of the parent polytechnic is the library's main objective.

Nature of Operation Site

Lagos State Polytechnic has a central library at the Isolo Campus and two college libraries at Ikórodu and Alausa. The central library is housed by a building originally designed to be a classroom block. It is therefore in close proximity to other classroom blocks and so affected by noise and echoes from lecture sessions.

User Education

Lagos State Polytechnic Isolo has a formal course called Use of the Library. It is a one credit hour course taught by librarians working in the polytechnic and compulsorily offered by all fresh National Diploma Students. Its user education programme also includes orientation talks to students on the polytechnic library's facilities and services and library privileges.

Library Fees by Students

Students pay library fees as follows:

| | |
|-----------------|-----------------|
| 1990/91 Session | N50 per student |
| 1991/92 Session | N50 per student |
| 1992/93 Session | N50 per student |

The money occurring from the fees is controlled by the library administration.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | 123 | 1,185 |
| 1991/92 | 20 | 1,438 |
| 1992/93 | 35 | 1,689 |

Other Registered Users 1990-1993 128

This group is made up of relations of staff and other responsible people from the public. Only in house use of library facilities was allowed this category users.

Donations Received

| Session | Cash | Book Volumes | Series | AV |
|---------|------|--------------|--------|-----|
| 1990/91 | Nil | 222 | 12 | Nil |
| 1991/92 | Nil | 243 | Nil | Nil |
| 1992/93 | Nil | Uncertain | Nil | Nil |

Library Performance Measurement Practice

The library claims it comprehensive measured its performance last in 1993 through a combination of statistics of output, library standards and survey of user satisfaction. It must be observed that it can be very cumbersome to measure library performance in one single year though all the three techniques claimed. Such multiple measurements would also be unnecessary.

12. MOHAMMED WABI LIBRARY, FEDERAL POLYTECHNIC BAUCHI

Year Established 1979

Nature of Operation Site

The library is centrally located on the polytechnic campus situated about five kilometres off the Bauchi city centre.

The library is temporarily housed in a make shift building originally designed to be a classroom block. Plans are under way to set up a modern library building in the polytechnic, the plan of which has already been approved.

Library Objective

The library's main objectives is to provide literature support to the academic programmes of the Federal Polytechnic Bauchi. To achieve this, it is committed to serving as:

an information and reference centre for the entire polytechnic community and ultimately, industry and commerce, schools and other institutions within and outside the locality that may require the specialised collection of the library.

It is unique that one of the libraries objectives is:

to collect, organise and store all materials appropriate for the polytechnic archives.

Library Fees by Students

| | |
|-----------------|-----------------|
| 1990/91 Session | ₦60 per student |
| 1991/92 Session | ₦60 per student |
| 1992/93 Session | ₦60 per student |

The Bursary, not the library controls the library fees, a situation considered unsatisfactory by the library administration.

Polytechnic Budget Not Supplied

Library Registration Statistics

No record of registered users is kept by the library.

Donations Received

| Session | Cash | Book Volumes | Series | AV |
|---------|------|--------------|--------|-----|
| 1990/91 | Nil | 300 | Nil | Nil |
| 1991/92 | Nil | 500 | Nil | Nil |
| 1992/93 | Nil | 400 | Nil | Nil |

Performance Measurement Practice

Never been measured either partly or wholly before the questionnaires for this research

posted to it were received. However, on receiving Questionnaire I (the user questionnaire) the Ag. Chief Librarian produced a similar questionnaire to sample the users' opinion on the performance of Mohammed Wabi Library.

13. THE POLYTECHNIC CALABAR LIBRARY

Year Established 1973

Library Objective

The library's main objective is provision of literature support and other library resources in support of the programmes of the parent polytechnic.

Nature of Operation Site

The library is operating in a make shift building converted from a block of lecture rooms. An extension of the building to create more space for library operations is almost being completed. The library is centrally located in the Polytechnic's campus.

Library Registration Statistics

| Session | Staff | Students |
|---------|-------|----------|
| 1990/91 | 40 | 300 |
| 1991/92 | 65 | 500 |
| 1992/93 | 95 | 700 |

Other Registrations 1990-1993

Nine National Youth Service Corps members serving in the Polytechnic.

Donations Received

| Session | Cash | Book Volumes | Series | AV |
|---------|------|--------------|--------|-----|
| 1990/91 | Nil | Nil | Nil | Nil |
| 1991/92 | Nil | 56 | Nil | Nil |
| 1992/93 | Nil | 50 | Nil | Nil |

Performance Measurement Practice

The library's performance was last measured in 1992 by statistics of output.

**14. SALAWU ABIOLA MEMORIAL LIBRARY, OGUN STATE POLYTECHNIC
ABEOKUTA**

Year of Established 1979

Library Objective

The Library's main objective is to provide learning resources that will support and sustain the teaching, learning and research efforts of the parent polytechnic.

Nature of Operation Site

Salawu Abiola Memorial Library is operating in a recently completed, purposely designed library building donated by Chief Moshood Abiola. It is centrally located on the polytechnic campus situated about five kilometres from the state capital.

The administration is satisfied with the performance of all its librarians and library officers, given their qualifications and experience.

User Education

As part of user education in the polytechnic, the library gives orientation talks to fresh students at the beginning of every academic year on the resources and services of the library and its rules and regulations. The fresh students are also taken on guided tour of the library. User education is also a continuous process in the library.

The library's proposal for a formal credit hour course on use of the library was approved by the Academic Board but unilaterally cancelled by the Rector on the pretext that the students already had many important courses to offer. This is a big surprise considering the importance of the proposed course to the fresh students most of whom may never have had the privilege of using a library prior to their admission to the polytechnic.

Library Fees by Students

| | |
|-----------------|----------------|
| 1990/91 Session | ₦5 per student |
| 1991/92 Session | N5 per student |
| 1992/93 Session | ₦5 per student |

The Polytechnic's administration collects the fees but puts them in a special account for library use. Increase in library fees from N5 to N20 in the 1992/93 session resulted in a violent demonstration by students of the polytechnic.

Library Registration Statistics

| Session | Staff | Students |
|----------------|--------------|-----------------|
| 1990/91 | 30 | 1,178 |

| | | |
|---------|----|-------|
| 1991/92 | 28 | 1,334 |
| 1992/93 | 21 | 1,630 |

Other Registered Users 1990-1991 - 1992/93 session 54

This group consists of relations of the polytechnics's staff and other trusted members of the public that have need to use the library. All non members of the polytechnic community so registered are permitted in house use of library facilities only.

It is noteworthy that only staff of the Polytechnic are allowed book loans by the library. Some of the students returning their completed questionnaires personally to the researcher appealed to him to prevail on their library's authorities to drop the discriminatory book loans policy against students.

Donations Received

| Session | Cash | Book Volumes | Series | AV |
|---------|------|--------------|--------|-----|
| 1990/91 | Nil | 85 | Nil | Nil |
| 1991/92 | Nil | 164 | Nil | Nil |
| 1992/93 | Nil | 421 | Nil | Nil |

APPENDIX VII

DIRECTORY OF POLYTECHNICS IN NIGERIA

| INST. CODE | Institution | YEAR | OWNERSHIP |
|------------|---|------|-----------|
| 1. | Abia State Polytechnic, P.M.B. 7166, Aba. | 1992 | State |
| 2. | Adamawa State Polytechnic, P.M.B. 2066, Yola, Adamawa. | 1991 | State |
| 3. | Akanu Ibiam Federal Polytechnic, P.M.B. 1007, Unwana-Afikpo. | 1981 | Federal |
| 4. | Akwa-Ibom Polytechnic, P.M.B. 1200, Ikot-Ekpene. | 1991 | State |
| 5. | Benue Polytechnic, P.M.B. 2215, Ugbokolo. | 1977 | State |
| 6. | College of Technology, P.M.B. 1011, Ijebu-Ijesa, Esa-Oke, Osun State. | 1991 | State |
| 7. | Institute of Management and Technology, P.M.B. 1079, Enugu. | 1965 | State |
| 8. | Federal Polytechnic, P.M.B. 5351, Ado-Ekiti. | 1977 | Federal |
| 9. | Federal Polytechnic, P.M.B. 13, Auchi. | 1964 | Federal |
| 10. | Federal Polytechnic, P.M.B. 231, Bauchi. | 1979 | Federal |

| | | | |
|-----|---|------|---------|
| 11. | Federal Polytechnic, P.M.B. 55, Bida. | 1977 | Federal |
| 12. | Federal Polytechnic, P.M.B. 231, Ede. | 1992 | Federal |
| 13. | Federal Polytechnic, P.M.B. 1037, Idah. | 1977 | Federal |
| 14. | Federal Polytechnic, P.M.B. 50, Ilaro. | 1979 | Federal |
| 15. | Federal Polytechnic, P.M.B. 1012, Kaura-Namoda. | 1983 | Federal |
| 16. | Federal Polytechnic, P.M.B. 35, Mubi. | 1979 | Federal |
| 17. | Federal Polytechnic, P.M.B. 0001, Nasarawa. | 1983 | Federal |
| 18. | Federal Polytechnic, P.M.B. 1036, Nekede, Owerri. | 1978 | Federal |
| 19. | Federal Polytechnic, P.M.B. 420, Offa. | 1992 | Federal |
| 20. | Federal Polytechnic, P.M.B. 021, Oko, Aguata. | 1981 | Federal |
| 21. | Jigawa State Polytechnic, P.M.B. 7166, Kazaure. | 1992 | State |

| INST. CODE | Institution | YEAR | OWNERSHIP |
|------------|---|------|-----------|
| 22. | Kaduna Polytechnic, P.M.B. 2021, Kaduna.Kaduna | 1960 | *Federal |
| 23. | Polytechnic, P.M.B. 1061, Zaria. | 1989 | State |
| 24. | Kano State Polytechnic, P.M.B. 3401, Kano. | 1978 | State |
| 25. | Katsina Polytechnic, P.M.B. 2052, Katsina. | 1973 | State |
| 26. | Kebbi State Polytechnic, P.M.B. 1034, Birnin-Kebbi. | 1976 | State |
| 27. | Kogi State Polytechnic, P.M.B. 1069, Lokoja. | 1993 | State |
| 28. | Kwara State Polytechnic, P.M.B. 1375, Ilorin. | 1977 | State |
| 29. | Lagos City Polytechnic, Ikeja. | 1995 | Private |
| 30. | Lagos State Polytechnic, P.M.B. 21606, Isolo-Lagos. | 1977 | State |
| 31. | Niger State Polytechnic, P.M.B. 1, Zungeru. | 1991 | State |
| 32. | Ogun State Polytechnic, P.M.B. 2210, Abeokuta. | 1978 | State |
| 33. | Ondo State Polytechnic, P.M.B. 1019, Owo. | 1980 | State |

| INST. CODE | Institution | YEAR | OWNERSHIP |
|------------|---|------|-----------|
| 34. | Our Saviour Institute of Science, Agriculture and Technology, Enugu. | 1990 | Private |
| 35. | Plateau State Polytechnic, P.M.B. 23, Barkin-Ladi. | 1978 | State |
| 36. | The Polytechnic, Calabar, P.M.B. 1110, Calabar. | 1973 | State |
| 37. | The Polytechnic Ibadan, P.M.B. 5063, Ibadan. | 1970 | State |
| 38. | The Polytechnic, P.M.B. 301, Iree, Osun State. | 1991 | State |
| 39. | Ramat Polytechnic, P.M.B. 1070, Maiduguri. | 1976 | State |
| 40. | Rivers State Polytechnic, P.M.B. 20, Bori. | 1989 | State |
| 41. | Sokoto State Polytechnic, Talata-Marafa, P.M.B. 2126, Sokoto. | 1992 | State |
| 42. | Taraba State Polytechnic, Jalingo. | 1994 | State |
| 43. | Tatari Ali Polytechnic, P.M.B. 0094, Bauchi. | 1989 | State |
| 44. | Yaba College of Technology, P.M.B. 2001, Yaba - Lagos. | 1948 | Federal |

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