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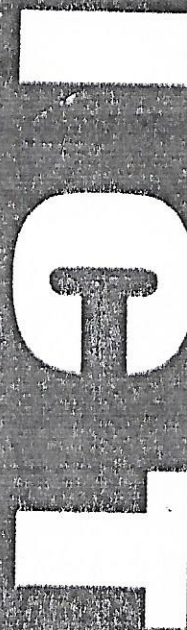
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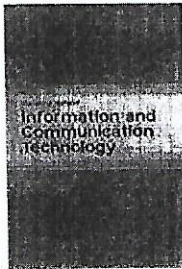
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ASSESSMENT OF CD-ROM USAGE IN ACADEMIC AND RESEARCH LIBRARIES IN NIGERIA: A CASE STUDY

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Abstract

This work attempted to assess the level of acceptability and the use of CD-ROM in 15 selected academic and research Libraries in Nigeria. Also investigated were the facilities, resources and other necessary ingredients required for the promotion of optimum utilization and maintenance of continuous use of CD-ROM in Nigeria Libraries. The research showed that there were enthusiasm on the Part of libraries in the use of CD-ROM having realized the noticeable advantages. However, the use of CD-ROM in the libraries surveyed were grossly inadequate Owing to a number of factors such as poor facilities, poor funding, foreign exchange Constraints, expertise required to operate the systems, apathy and other militating Factors.

Introduction.

It is an open truth that acquisition and use of information technology has been embraced by most academic and research libraries (especially in advanced countries) as a major tool for Information Management and their continued existence and development depends upon their response to information technology.

Nigeria ,with 50 Universities and Inter-University Centres has a great potential for Scientific and technological advancement. However, information technology is still at the embryonic stage in Nigeria. The CD-ROMs being an integral part of Information technology was first introduced in the mid 1980s but not fully embraced due to some militating factors. Ogunleye[1] declared in his research work that some universities such as University of Ibadan, University of Lagos, Ahmadu Bello University had attempted automation in 1975, 1982 and 1987 respectively but failed to achieve desired objective due to insufficient fund allocation, inadequacy of manpower requirement, power outages, prohibitive cost of importation of hardware, software and the accessories of information technology, conservatism on the part of management, unfavourable government policy and the lukewarm attitude to alleviate the sufferings of academic institutions by the government. These arguments were corroborated by Obajemu[2] and Adeyemi[3]. Similar argument was advanced by Majid[4] on 3 South Asian Countries (i.e Pakistan, Bangladesh and Sri Lanka). To him, high hopes were attached to CD-ROM technology at its inception in bridging the gap between information rich and information poor countries but its growth in the surveyed academic libraries in the above countries showed that it is at snail speed.

FEATURES OF CD-ROM

CD-ROM being an acronym for Compact Disc Read Only Memory is a small plastic disc of about 4.72 inches (120 mm) in diameter. It can hold information or data equivalent to about 200,000 pages of textbooks. One disc contains about 20.000 tracks, spaced 1.6mm apart. Data is stored as bits of O, and 1's, i.e. 'pits' and 'plateau'. CD-ROM is similar to commercial CD music. Read only memory means it cannot be written on (i.e. copied upon), modified, or erased by the user. CD-ROM format is the most widely used today and the drives are standard on many microcomputer systems capable of storing up to 650 megabyte of data on one side of a CD.

One of the most important characteristics of CD-ROM drives is their speed; The rotational speed determines how fast data can be transferred from CD-ROM. For instance, a 24 X or 24 speed CD-ROM drive can transfer 3.6 megabyte per second while 52 times will transfer about 10.2 MB per second. The faster the drive, the faster data is read from CD-ROM and used by the computer system. To effectively use CD-ROM, computer system must have a CD-ROM drive of required speed .Ojo-Igbinoba[5] and Timothy[6]

BENEFITS OF CD-ROM USAGE IN THE ACADEMIC LIBRARIES

Generally speaking, the literature reviewed showed the gains or the strengths and weaknesses of the CD-ROM use in the academic libraries. However, the benefits outweighed the seemingly constraints. Dalrymple[7], Howden[8] Idowu[9], Ojo – Igbinoba[10], Bains[11], Adeyemi[12], Leach[13], Qari[14], Siddiqui[15], Short[16], Young[17]; Akinade[18], Large[19], Lambert[20] had all highlighted these strengths and weaknesses

of CD-ROM and other information technology. The points raised in their research works are stated here as follows:

♦ An economic use of space in the libraries. This point brings into fulfilment the redicted paperless libraries otherwise call 'paperless age'.

♦ There is quick and easy access to the information sources with reduced strains and time.

♦ Geographical barriers is completely eliminated. Researchers can access at any oint within and without the academic environment by means of computer terminals.

♦ Wide Area Networked (WAN) services have made it easier for academic settings to be connected to the outside world for the purpose of information sourcing. For instance, Silver platter and OVID have begun to offer access to data bases over the Internet.

♦ CD-ROM use enhances user's satisfaction, rapid responses, easy operational procedures and increased flexibility.

♦ Provides marketing opportunity of services to the members of academic community and the outside world.

♦ Power outage cannot affect the disc nor wipe off the memory.

PROBLEMS ASSOCIATED WITH CD-ROM

Users may not have time or the inclination to master the seemingly complicated retrieval system or use them frequently enough to retain the acquired expertise.

Librarians may have to grapple with security problem. The discs can be

stolen easily in a porous library environment or damaged if carelessly handled or in a harsh weather conditions.

The thorniest difficulty faced by academic libraries is the cost of funding a CD-ROM service. The capital investment in the hardware micro-computers, CD-ROM drives and printers required to set up workstations is enormous. Cost of buying or leasing the discs, licensing CD-ROM for use and the consumables add to the problems.

Staff and the training requirement for the installation and maintenance of the system and the management of the CD-ROM network cum point of use assistance, providing training sessions and writing documents cannot be over emphasized.

All these 4 factors were observed by some scholars as the likely problems to be encountered in the course of pursuing CD-ROM 'Venture' in the academic libraries in Nigeria.

OBJECTIVE OF THE STUDY

1. The broad objective of this research work is to examine the state of art of the information technology in the academic libraries in Nigeria. In other words, the IT drives or efforts made so far and the level of its acceptability.

2. To bring to focus the significance of CD-ROM use in the developed world and the need for the developing countries to toe the line of IT in view of the recognizable advantages.

3. The management of the academic institutions and the government in general should support the acquisition of IT and provide necessary technical support.

METHODOLOGY

As an effort at assessing the availability and utilization of CD-ROM technology in academic and research libraries, a survey was conducted. The questionnaires were administered to 15 selected academic and research libraries and it cut across the 3 geographical zones in Nigeria namely, University of Nigeria Nsukka (UNN); Bayero University, (Kano (BUK); University of Maiduguri; (Unimaid); University of Ibadan (Unibadan); University of Ilorin, (Unilorin); Olabisi Onabanjo University, Ago-Iwoye (O.O.U); University of Lagos (Unilag); Lagos State University, Ojo (LASU);

Obafemi Awolowo University, Ile-Ife (O.A.U, Ife) and College of Education Ikere Ekiti (CE Ekiti). Others include Federal Institute of Industrial Research, Oshodi (FIIRO); Federal School of Radiography, Yaba (FSR). International Institute of Tropical Agriculture, Ibadan (IITA); National Institute for Nigerian Language, Abo (NINL) and National Centre for Economic Management and Administration (NCEMA) Ibadan.

FINDINGS

This research showed that out of 15 academic and research libraries surveyed, 12 were partially computerized while 3 have not commenced the race. These libraries were LASU, FRS and CE-Ekiti. In other words, 80% of the libraries studied had begun while 20% of these libraries are yet to start.

It was further revealed that IITA, Ibadan has the highest number of over 51 micro-computers and followed by UNN, O.A.U. and FIIRO with 21 micro-computers. O.O.U., Unibadan, Unilag have between 11 and 20 micro-computers, while BUK, Unimaid, Unilorin have between 6 and 10 micro-computers. NCEMA, NINL, FSR and CE-Ekiti have between 1 and 5 computer systems.

Among the libraries surveyed, report showed that only IITA has fully automated its library while others have not. For instance, Unimaid, Unibadan, Unilorin, Unilag, O.O.U. and NCEMA have only partially commenced computerization drive from their cataloguing sections, 3 others started off from circulation while the remaining 2 from acquisition. All the libraries studied were quite familiar with CD-ROM as one of the information materials that should be acquired and used in the libraries. The findings indicated that all the libraries surveyed have the CD-ROM drive to effectively operate or read the CD-ROMs in their respective libraries. 60% Librarians of these libraries strongly agreed to the fact that information is better stored and retrieved from CD-ROM, while 33.3% just agreed to the same assertion. 7.7% maintained indifferent position to the statement in question. 84% of Librarians strongly agreed that CD-ROM usage enhances greater learning and research in the libraries. 8% just agreed and another 8% of the Librarians maintained indifferent position. Furthermore, about 60% of the Librarians strongly agreed that CD-ROM has greater advantages over printed texts while 40% just agreed to the above statement.

Only 10% of Librarians strongly agreed that CD-ROMs have advantages over online services, 33.3% agreed, 33.3% disagreed and 20% maintained indifferent position. The opinion pooled from the Librarians showed that they were familiar with the CD-ROMs and the significance of their usage in the academic cum research libraries. Four Libraries namely, NCEMA, IITA, O.A.U., and O.O.U. were said to have fully networked, 6 Libraries partially networked were: UNN, Unimaid, Unibadan, Unilorin, Unilag and FIIRO while the remaining 5 libraries have not.

BUDGETARY ALLOCATION

Two of the Libraries surveyed enjoyed 20% annual budgetary allocation of the total vote. These were IITA and NINL while 12 other academic and research libraries, received 10% budgetary allocation. NCEMA has no specific percentage annual allocation.

EXTERNAL GRANTS

Ten (10) of the libraries covered do receive external grants to supplement their annual budgetary allocation. They were: UNN, BUK, Unimaid, OOU, CE-Ekiti, LASU, OAU, FIIRO, RSR, and IITA, while others do not receive.

LITERACY LEVEL

The research attempted to find out the literacy level in the Field of information technology of all the categories of staff namely, administrative staff, technical , library Assistants as well as the users as a whole. 20% of the administrative staff of UNN, CE-Ekiti, FSR, FIIRO were computer literate while 40% of BUK, Unimaid, Unibadan and Unilorin recorded computer literacy level. OOU, LASU, OAU have 60% each. However, IITA, NINL stood out clearly with 80% computer

literacy level amongst their administrative staff.

TECHNICAL STAFF
UNN, BUK, Unimaid, Unilorin, CE-Ekiti, FIIRO, and FSR recorded 20% computer literacy level amongst their technical staff. Others recorded 40% except IITA which had 80% significant literacy level.

LIBRARY ASSISTANTS
IITA and OAU stood out clearly with 60% computer literacy level and slightly followed by UNN, OOU, LASU, FIIRO, NINL with 40% while other libraries recorded 20% literacy level.

USERS
This research work went further to investigate computer literacy level amongst the users. It was gathered that only IITA had estimated 80% computer literacy level. Others recorded very insignificant literacy level.

COMPUTER TRAINING
Only 5 of the 15 libraries covered do organize periodic computer training programmes for their staff while others have not shown interest in this area of manpower development. Of these 5 libraries, 3 of them do organize computer training annually while the remaining 2 conduct theirs bi-annually.

STANDBY GENERATOR
As a backup, the research work investigated whether these libraries have standby generators to supplement the erratic nature of the electricity in Nigeria. The findings revealed that only 5 libraries have generators to support power outage.

DISCUSSION
The study clearly showed that there were enthusiasms on the part of Librarians towards having in use the CD-ROM for the purpose of achieving high quality research work with less strains in their respective academic and research environments, but this desire seemed difficult to attain as number of variables constituted a great hindrance, hence the growth of computerization drive is wobbling and negatively affects the effective use of CD-ROMs in the libraries studied and perhaps in Nigeria as a whole.

The research showed that the International Institute of Agriculture which had computerized its operation since 1985 stood out very clearly as having necessary facilities on the ground, resources, manpower requirement cum technical support for the purpose of optimum utilization of CD-ROMs in its library at Ibadan. Other academic and research libraries such as Unibadan, O.A.U. Ife, Unilorin, BUK, Unimaid, Unilag, LASU, FSR, NINL, NCEMA, O.O.U Ago Iwoye, UNN are all trailing behind International Institute of Tropical Agriculture.

The report further traced the greatest problem of these libraries to inadequate funding, i.e. dwindled budgetary allocation, domestic inflationary trends and foreign exchange constraints – all these have made the libraries incapacitated to fully automate and harness the opportunities in the use of CD-ROM and other on- line services available both within and outside the academic constituencies. This statement in question was corroborated by Enyia[21] in his research work entitled the Management of Library development in the Nigerian University system. He X-rayed the salient problems being experienced by the Nigerian Library Development Fund (LDF) to·

. Non-conformity with specified criteria on the utilization of the fund .

. over subscription for printed information materials at the expense of non-printed such as CD-ROM.

. Spreading of funds over several quarters with a large proportion of the funds used in paying salaries of library staff thereby ignoring the purchase of essential information materials, CD-ROMs inclusive, office consumables.

. Foreign exchange constraints have made it very difficult to procure CD-ROM. For instance in 1995, N85 Naira was officially exchanged for a dollar while in 2003 it is N126 Naira to a dollar.

Due to the geometric progression of students' enrolment in Nigerian Universities in recent years, population of students in the campuses have greatly increased between 15-20 thousand per University. Bearing this in mind, the Libraries in these academic institutions will require adequate number of micro-computer systems and CD-ROM to serve the populace. This study showed that over 70% of micro-computer systems housed in the academic libraries surveyed were grossly inadequate and cannot cope with the population. Several terminals will be needed at various points within and outside the academic environment.

In order to effectively man the micro-computer systems, and attain the level of labour efficiency, all strata of labour force in the libraries and the clientele alike should be adequately trained and re-trained. This will definitely bring about maximum use of CD-ROM in the libraries. This research revealed that about 80% of the labour force in the libraries surveyed have not been trained effectively in the use of micro computers and thus negate the optimum utilization of CD-ROM.

This research has opened out to the outside world the level of automation drives in the libraries studied and area of their shortcomings. The use of CD-ROM is not pronounced due to some bedeviled factors already X-rayed in the literature reviewed . In view of these inherent problems, some recommendations were made so as to be able to move the libraries forward in the area of IT .

Government Policy:
The Federal Government of Nigeria should show much more interest in the area of Information technology drive. The import tariff on the acquisition of hardware/software and the consumables be drastically cut down or entirely removed. The tax removed will reduce cost of acquiring them from foreign nations .

Soliciting for grants:
The academic and research libraries should solicit for grants both locally and outside their domain to supplement the meagre votes.

Expenditure ratio:
Re-adjustment in the expenditure ratio in the acquisition of information materials be made. In other words, more emphasis should be placed on the acquisition of non-prints such as CD-ROM etc since the world is advancing towards paperless age.

Periodic in-house training:
Libraries should embark on periodic in-house training programmes for the purpose of skill acquisition. Users' education programmes should be intensified in order to build users' confidence in the search techniques.

Library Administrators:

The library administrators should be keen in the skill acquisition towards the information technology and encourage their followers.

Fund Generation:

The libraries should embark on fund generation strategies, so as to procure more CD-ROM and other related softwares for use.

Commercialization & Privatisation Drive:

Federal Government of Nigeria should pursue to logical conclusion the on-going commercialization and privatization of National Electric Power Authority (NEPA) and Nigerian Telecommunication (NITEL) with the hope of making them more efficient and effective in their service delivery. In other words, commercialization will bring about constant supply of electricity supply thereby curbs power outage. Electricity and telecommunication are very vital in the sustenance of information technology.

CONCLUSION

This research has clearly shown the inadequate use of CD-ROM in the libraries surveyed due to poor facilities, poor funding cum unfavourable government policies. These variables have all contributed to the unimpressive use of CD-ROM in the libraries studied in Nigeria. This observed argument was corroborated in countries like Pakistan, Bangladesh and Sri-Lanka as earlier reported in the introductory part of this work. This singular factor can contribute immensely to poor quality research works in the developing countries since current literature cannot be accessed easily either locally or globally.

Therefore, all hand should be on deck in order to push Nigerian libraries forward in the areas of information technology and be encouraged on the use of CD-ROMs in their libraries.

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