

Adoption of Automation and Effectiveness of Library Services By Librarians in Academic Libraries in Abia State

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Abstract

The study examined adoption of automation and effectiveness of library services by librarians in academic libraries in Abia State. It adopted the survey research design with four objectives to guide the study. The population of the study comprises 27 librarians of the Michael Okpara University of Agriculture, Umudike (MOUUAU) Library. The data for the study was collected using the structure questionnaire and the census sampling technique was used since all the study population were used. The instrument yielded a 100% response rate. Data collected were analysed using the descriptive statistics which showed the frequency counts, mean scores and standard deviations, while the corresponding hypothesis was tested at 0.05 level of significance with the chi-square inferential method. The findings revealed that library services necessary for automation in academic libraries by librarians include acquisition, circulation, cataloguing and classification, etc. It also showed that the facilities needed for automation of academic library services are computers, printers, scanners, effective internet services, etc. The study further revealed that the status of automation of academic library services in the academic library under study is not effective. The study showed the problems of automation of academic library services in Abia State to include inadequate funding of academic libraries, inadequate ICT skills of librarians, poor internet access, etc. However, the test of hypothesis revealed that there is a relationship between automation and effectiveness of library services in academic libraries by librarians in Abia State. Consequently, the study conclusively recommends, among other things, that management of academic libraries should provide adequate funding to academic libraries to enable plan and execute effective automation of library services in academic libraries.

Keywords: Automation, Library Services, Librarians, Academic Libraries, Abia State

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INTRODUCTION

Academic libraries are the hubs for learning, teaching and research in every academic institution. As a mandate, academic libraries are established as important organ of the academic institutions to ensure the provision of effective library services in all formats and media for the actualization of the vision, mission and objectives of their parent institutions [1]. To effectively accomplish their mandates, academic libraries, in response to the emerging trends in information and communication technology (ICT), engage in automation of library services.

Automation in libraries, according to Atanda

(2018) [2]. is the use of automatic and semi-automatic data processing devices such as: computers and computer-related accessories to carry out traditional library functions like acquisition, circulation, cataloguing and classification, reference services and serials management. Automation in academic libraries by librarians has become imperative as a result of the increasingly changing expectations from the academic libraries by users. This is practically given impetus due to the vast proliferation of electronic information resources and services, largely owing to the advancement in information and communication technologies (ICTs). Automation is further construed as the use of computers and library software to save the user's hours in the libraries and also focuses on providing current awareness services (CAS) and selective dissemination of information (SDI) services to the right users at right time [3].

Succinctly, automation in libraries involves the computerization of library activities, functions and services, such that they can be accessed remotely by library users to meet their various information, educational, intellectual, research and recreational needs. Adoption of automation in academic libraries by librarians is, in fact, not only a necessity in achieving effectiveness in academic library services delivery but also a momentous exercise which current global realities has made it possible. This is because automation of library services has the potentials of saving the time of library staff cum users. Also, automation facilitates the process that once the details of information resources are entered into a library's database system at the acquisitions point, same information can be used in other departments for ease of library services delivery. To this end, Das and Chatterjee (2015) [4]. enumerated some of the functions and services that are automated in the academic libraries to include, but not limited to: acquisition services, circulation services, cataloguing and classification services, current awareness services (CAS), online search services, printed indexes, selective dissemination of information (SDI) services, inter-library loan services, stock verification services, reference services, etc.

However, despite the usefulness and benefits of automation in effective library services provision in academic libraries, it is disheartening to observe that this paradigm is not given the attention it deserves in the academic libraries in Abia State. In fact, it is obvious that most librarians do not possess the right information and communication technology (ICT) literacy skills coupled with inadequate funding of academic libraries to implement automation. There are also the issues of poor power supply, inadequate ICT facilities, inadequate qualified/well-trained ICT librarians as well as poor internet services in academic libraries in Abia State, which inhibit the adoption of automation. Therefore, based on this backdrop, the study examines adoption of automation and effectiveness of library services by librarians in academic libraries in Abia State, with particular attention to the Michael Okpara University of Agriculture, Umudike.

Research Objectives

The study was guided by the following specific objectives:

- i. To find out the library services necessary for automation in academic libraries by librarians in Abia State.
- ii. To identify the facilities needed for automation of library services in academic libraries by librarians in Abia State.
- iii. To examine the status of automation of library services in academic libraries by librarians in Abia State.
- iv. To identify the factors militating against automation of library services in academic libraries by librarians in Abia State.

Hypothesis

One null hypothesis was formulated for the study and tested at 0.05 level of significance.

Ho: There is no significant difference between automation and effectiveness of library services by librarians in academic libraries in Abia State.

LITERATURE REVIEW

Academic libraries are the libraries established as appendages of the tertiary institutions such as: universities, polytechnics, colleges of education, colleges of nursing, and other allied institutions, which have the core mandate of supporting teaching, learning, research, extension and community services (Ibegwam, 2015; Kolawole & Igwe, 2016) [5]. Academic libraries are administered by librarians for the provision of library services to patrons. According to Ibegwam, Nelson and Jude-Iwuoha (2019) [6], librarians are experts in the tools of 21st century scholarship. Consequently, as a respond to the emerging trends and dynamics in the information space, including the paradigm shift towards automation of library services, it is expected that librarians should possess a high level of skills, knowledge and techniques in library practices including sound information and communication technology (ICT) literacy skills as well as appeal for media and digital revolution [7]. This is necessary to enhance their effectiveness in the automation of library services in academic libraries.

Automation of library services is an essential responsibility of the academic libraries. Automation is the application of ICTs to library operations and services such as: acquisition, cataloguing, public access, indexing and abstracting, circulation, serials management, and reference functions [8]. It is the application of information communication technologies (ICTs) in the day-to-day operations of the academic library [9]. Consequently, Das and Chatterjee (2015) itemized the functions and services that are automated in the academic libraries to include, but not limited to: acquisition services, circulation services, cataloguing and classification services, current awareness services (CAS), online search services, printed indexes, selective dissemination of information (SDI) services, inter-library loan services, stock verification services, reference services, etc. Specifically, automation facilitates acquisition services through the process of ordering library resources online via computer networks from reputable book vendors [10].

More so, Anas, Iqbal and Ahmad (2012) [11]. in their study reported that the introduction of automation in academic libraries help in managing a large amount of information which is brought about by literature explosion with ease, record keeping activities, increased speed and accuracy of issue, return and renewal of books, effective management of OPAC, as well as ability to handle new multimedia formats such as: photos, digital information, videos, movies, PDF, web, Wiki, and online learning. Also, while understudying the opportunities and challenges of automation in some academic libraries in Anglophone Sub-Saharan Africa: a perspective on West Africa, Barfi (2015) [12]. discovered that increased access to library resources, resource sharing, efficient and effective performance (duplication control), easy processing of local content (dissertation, thesis, etc.), increased collaboration amongst libraries, freeing physical spaces, improved image of librarians, increased visibility on the web, fast and convenient services, usage reports and statistics, etc. are the gains of automation of academic library services.

Nyambeki (2016) [13]. on the evaluation of academic library automation practices at Multimedia University, Kenya, pointed out that automation requires various facilities such as: computers, scanners, photocopying machines, tape recorders, projectors, ICT trained librarians, slides and film strips, electronic notice boards, and effective internet services. More so, Okeoma and Egbe (2018). while studying automation in academic libraries: An evaluative study of two Nigerian libraries and found out that automation of libraries services is not effective in Nigeria because most academic libraries do not have adequate technological facilities such as computers, and skilled librarians to support effective automation of library services. Accordingly, they suggested that computers, internet services, trained librarians, finance and some other necessary facilities should be given adequate attention to enhance automation and effectiveness of library services.

METHODOLOGY

The study adopted the survey research design through the use of structured questionnaire. The population comprises 27 academic librarians of the Michael Okpara University of Agriculture, Umudike (MOUUAU) Library. The census sampling technique was adopted since all the study population was used. Copies of the questionnaire were distributed to the 27 respondents and collected on the spot. This yielded a 100% response rate. The data collected were analysed using descriptive statistics to determine the frequency counts, mean scores and standard deviations after coding the raw data with the Statistical Package for Social Sciences (SPSS). The corresponding hypothesis was tested using the chi-square inferential method at 0.05 level of significance. A 4-point rating scale was used to determine the agreement or disagreement in each case, that is, each item statement with the mean score of 2.50 and above indicates agreement while item statements with less than 2.50 mean score indicate disagreement. The results are presented in tables.

RESULTS AND DISCUSSION OF FINDINGS

Table 1 shows that the library services necessary for automation in the academic library understudy include: institutional repository services (3.70), stock verification services (3.63), serials control and management services (3.59), circulation services (3.56), interlibrary loan services (3.56) and current awareness services (3.56). Others are: Online Public Access Catalogue services (3.37), reference services (3.33), acquisition services (3.15), selective dissemination services (3.15) and cataloguing and classification services (3.11). The finding agrees with the study conducted by Das and Chatterjee (2015), which revealed that automation in academic libraries are undertaken to promote core library functions and services such as: acquisition services, circulation services, cataloguing and classification services, etc.

Table 1. Mean Responses on the Library Services Necessary for Automation in Academic Libraries in Abia State (n = 27)

S.No.	Item Statements	SA	A	D	SD	Mean	Std. Dev.	Decision
1.	Acquisition services	4	23	0	0	3.15	2.62	Agreed
2.	Circulation services	15	12	0	0	3.56	3.06	Agreed
3.	Cataloguing and classification services	10	12	3	2	3.11	2.71	Agreed
4.	Online Public Access Catalogue services	14	10	2	1	3.37	2.93	Agreed
5.	Reference services	12	13	1	1	3.33	2.88	Agreed
6.	Serials control and management services	18	7	2	0	3.59	3.12	Agreed
7.	Institutional repository services	19	8	0	0	3.70	3.20	Agreed
8.	Current awareness services (CAS)	16	10	1	0	3.56	3.07	Agreed
9.	Selective dissemination of information (SDI) services	9	14	3	1	3.15	2.71	Agreed
10.	Interlibrary loan services	15	12	0	0	3.56	3.06	Agreed
11.	Stock verification services	17	10	0	0	3.63	3.13	Agreed
	Grand Mean					3.43		Agreed

Source: Field Survey, 2021 Criterion Mean = 2.50

Table 2. Mean Responses on the facilities needed for automation of library services in academic libraries by librarians in Abia State (n = 27)

S.No.	Item Statements	SA	A	D	SD	Mean	Std. Dev.	Decision
1.	Computers	13	14	0	0	3.48	2.98	Agreed
2.	Scanners	12	13	2	0	3.37	2.89	Agreed
3.	Printers	15	9	2	1	3.41	2.97	Agreed
4.	Projectors	9	11	5	2	3.00	2.61	Agreed
5.	Internet Access	12	10	2	3	3.15	2.78	Agreed
6.	Photocopiers	19	8	0	0	3.70	3.20	Agreed
7.	Tape recorders	1	3	15	8	1.89	1.50	Disagreed
8.	Electronic noticeboards	0	4	13	10	1.78	1.36	Disagreed
9.	Slides and film strips	0	1	15	11	1.63	1.15	Disagreed
	Grand Mean					2.82		Agreed

Source: Field Survey, 2021 Criterion Mean = 2.50

Table 2 reveals that the facilities needed for automation of library services in the academic libraries by librarians in Abia State include: photocopiers (3.70), computers (3.48), printers (41), scanners (3.37), internet access (3.15) and projectors (3.00). The table shows the respondents' disagreement with such facilities as: tape recorders (1.89), electronic noticeboards (1.50) and slides and film strips (1.63) as necessary tools for automation of library services in the academic libraries by librarians. This result in part validates the study by Nyambeki (2016), which listed electronic noticeboards and slides and film strips as parts of the facilities necessary for automation of library services in academic libraries.

Table 3. Mean Responses on the Status of Automation of Library Services in Academic Libraries by Librarians in Abia State (n =27)

S.No.	Item Statements	SA	A	D	SD	Mean	Std. Dev.	Decision
1.	Acquisition services are automated and working effectively	4	5	10	8	2.19	1.91	Disagreed
2.	Circulation services are automated and working effectively	6	2	12	7	2.26	2.00	Disagreed
3.	Cataloguing and classification services are automated and working effectively	12	8	5	2	3.11	2.73	Agreed
4.	Online Public Access Catalogue services are automated and effectively working	3	5	10	9	2.74	1.78	Disagreed
5.	Reference services are automated and effectively working	1	4	14	8	1.92	1.54	Disagreed
6.	Serials control and management services are automated and effectively working	5	1	12	9	2.07	1.83	Disagreed
7.	Institutional repository services are automated and effectively working	18	8	1	0	3.63	3.14	Agreed
8.	Current awareness services (CAS) are automated and effectively working	5	1	15	6	2.19	1.89	Disagreed
9.	Selective dissemination of information (SDI) services are automated and effectively working	10	12	3	2	3.11	2.70	Agreed
10.	Interlibrary loan services are automated and effectively working	3	4	10	10	2.00	1.72	Disagreed
11.	Stock verification services are automated and effectively working	5	2	12	8	2.15	1.89	Disagreed
	Grand Mean					2.43		Disagreed

Source: Field Survey, 2021 Criterion Mean = 2.50

Table 3 reveals the state of automation of library services in the academic library understudy. It shows a grand mean of 2.43 as against the 2.50 criterion mean, which indicates that the level of automation of library services in the academic library understudy is below average. This may be a precursor to what is actually happening in other academic libraries in Abia State. However, out of the 11 library services necessary for automation in academic libraries by librarians, 8 library services were not automated in the academic library under study. The three (3) library services agreed upon as being automated and are effectively working include: institutional repository services (3.63), cataloguing and classification services (3.11), and selective dissemination of information (SDI)

services (3.11). This finding agrees with the study conducted by Okeoma and Egbe (2018), which found out that automation of library services in academic libraries in Nigeria is not effective due to certain technology-related factors.

Table 4. Mean Responses on the Factors Militating against Automation of Library Services in Academic Libraries by Librarians in Abia State (n = 27)

S.No.	Item Statements	SA	A	D	SD	Mean	Std. Dev.	Decision
1.	Inadequate computers and accessories	4	5	11	7	2.22	1.92	Disagreed
2.	Inadequate ICT trained librarians	19	5	2	1	3.56	3.11	Agreed
3.	Poor funding of academic libraries	13	8	6	0	3.26	2.83	Agreed
4.	Poor internet services	9	10	7	1	3.00	2.60	Agreed
5.	Epileptic power supply	15	5	6	2	3.22	2.85	Agreed
6.	Inadequate ICT skills of librarians	17	6	2	2	3.41	3.01	Agreed
	Grand Mean					3.11		Agreed

Source: Field Survey, 2021 Criterion Mean = 2.50

Table 4 shows that the factors militating against automation of library services in academic libraries by librarians in Abia State are: inadequate ICT trained librarians (3.56), inadequate ICT skills of librarians (3.41), poor funding of academic libraries (3.28), epileptic power supply (3.22), and poor internet services (3.00). The results also showed a disagreement against the fact that inadequate computers and accessories is a problem to automation and library services in the academic library understudy. The finding partly disagrees with the study conducted by Okeoma and Egbe (2018), which revealed inadequate computers as one of the problems confronting automation of library services in academic libraries in Nigeria.

Table 5. Chi-Square Summary Analyses of Automation and Effectiveness of Library Services by Librarians in Academic Libraries in Abia State.

Chi-Square Tests			
	Value	Df	P. value
Pearson Chi-Square	54.083 ^a	49	.897
Likelihood Ratio	35.072	49	
Linear-by-Linear Association	.329	1	
N of Valid Cases	11		

X² calculated = 2.217, Critical = 9.93, Level of significance = 0.05, P. Value = 0.897.

Table 5 shows the result of the test of hypothesis. It indicates a strong relationship between automation and effectiveness of library services by librarians in Abia State which is shown by the P. Value = 0.897 as against the 0.05 level of significance. Thus, the null hypothesis is rejected while the alternate hypothesis is accepted.

CONCLUSION

Automation is an important aspect of today's academic libraries effectiveness. It facilitates the ease and speed with which academic library services are accessed and/or provided by librarians to users in order to meet their information, research and recreational needs. From the findings, library services necessary for automation in academic libraries by librarians include acquisition, circulation, cataloguing and classification, current awareness and selective dissemination of information services, among others. The study revealed that the status of automation of library services in the academic library under study is not effective. However, the problems of automation of library services in academic libraries in Abia State include inadequate funding of academic libraries, inadequate ICT skills of librarians to execute automation and manage it effectively, among other factors.

Recommendations

Based on the findings of the study, the following recommendations are made:

- i. Management of academic institutions should provide funding and managerial supports to academic libraries for automation of libraries services for ease of access and use.
- ii. Academic libraries should ensure that librarians are trained and retrained on ICT skills and other emerging library services in order to aid automation and effective provision of library services.
- iii. Management of academic institutions should make effort to improve power supply in the libraries to help any automation efforts of the librarians.

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