

THE IMPACT OF AUTOMATED CATALOGUING SERVICES ON JOB PERFORMANCES OF STAFF OF FEDERAL UNIVERSITY LIBRARIES IN SOUTH-EAST, NIGERIA: A COMPARATIVE STUDY.

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Abstract

Purpose of the Study: This research investigated the effects of automated cataloguing services on the job performance of staff in Federal University libraries in South-East Nigeria. *Design/methodology/approach* – The research compares the extent of adoption of automated cataloguing and explores the various challenges which includes; data quality concerns, the complexity of natural language processing, resistance to change, scalability, high-cost implications, vendor dependence, staff redeployment concerns etc. The research used a descriptive survey design with a total population of 299 respondents from the five (5) Federal University libraries in the South-East Nigeria under investigation. A structured questionnaire with three (3) section was designed to extract information on the extent of adoption, challenges and impacts of automated cataloguing on job performances of staff of Federal University Libraries in South-East Nigeria. Despite these challenges, the study highlighted several positive impacts in the implementation of automated cataloguing such as; efficiency gains, improved data accuracy, enhanced user experience, adaptability to evolving technologies, and the facilitation of digital resource management.

Findings – The findings from the study provided insights into how automation can transform library operations and improve overall performance, suggesting that while challenges exist, the benefits of automated cataloguing services are substantial and can significantly enhance library services in the digital age.

Practical Implication – This paper addressed the extent of adoption, the challenges and the impacts of automated cataloguing services on job performances of staff of Federal University libraries in South-East Nigeria. The findings of the study reveals that all the institutions under investigation have adopted automated cataloguing and this adoption have transformed the method of rendering library cataloguing services with a positive impact on the job performances on staff.

Originality/value – The study reported the actual status of automated cataloguing services, the challenges faced and the impact on the job performances on staff of the Federal University libraries in South-East Nigeria.

Keywords: Automation, cataloguing services, job performances, Federal University Libraries in South-East, Nigeria.

Introduction

In recent years, the landscape of library services has undergone transformative changes, propelled by advancements in information technologies. One significant development that has reshaped traditional library practices is the integration of automated cataloging services. As university libraries in South East Nigeria navigate this paradigm shift, it becomes imperative to explore and understand the impact of automated cataloging on the job performances of their dedicated staff.

The implementation of automated cataloging services promises enhanced efficiency, streamlined workflows, and improved access to information resources. Techopedia, (2020) describes automation is the development and use of technology to create and provide things and services with the least amount of human intervention. The implementation of automation technologies, techniques and processes improve the efficiency, reliability, and/or speed of many tasks that were previously performed by humans. However, as these technological innovations unfold, questions arise about how they influence the roles and responsibilities of library personnel. This study aims to delve into the adoption status of automated cataloging, the challenges faced and the impact it has on the job performances of the library staff of the Federal University libraries in South-East Nigeria.

South-East Nigeria, with its diverse academic landscape, presents a unique context for investigating the effects of automating cataloging services. As institutions strive to modernize their libraries and provide state-of-the-art resources to students and faculty, understanding the nuanced consequences of automated cataloging becomes crucial for effective management and strategic planning.

This research will examine the various extent of adoption of the automated cataloging services as it redefines cataloging role processes, the overall satisfaction and well-being of the library staff. Additionally, the study will explore the challenges of how this technological shift influences the university library staff job performances, with regards to their experiences and engagements and also the intricate dynamics of the impact of automated cataloging services systems on the job performances of staff in Federal University libraries across the South-East region of Nigeria.

Automation according to Ken-Agbiriogu and Okorie (2021), it's the use of electronic machines to perform tasks and reduce human intervention to a minimum thus sparing human energy and time. It involves the use of electronic peripherals to perform the traditional cataloging routine activities engaged by library personnel in rendering library services. Automated cataloging services are systems designed to streamline and enhance the process of cataloging library materials. These services influence technology to automate various cataloging tasks, which traditionally required significant manual effort by librarians. Examples of automated cataloging services include OCLC's WorldCat, which provides global cataloging support, and Integrated Library Systems (ILS) like Ex Libris' Alma, which offer

built-in automated cataloging functionalities and enhance Online Public Access Catalogs (OPAC), that makes it easier for users to find and access library materials. Automated cataloging is the process of using technology to perform tasks traditionally done by human catalogers in libraries and information centers. This technology includes software systems and algorithms designed to create, manage, and update bibliographic records efficiently. The main components of automated cataloging involve data import and export, metadata generation, authority control, and batch processing.

Cataloguing is the heartbeat of the librarianship profession. It is one of the most intellectual activities engaged upon by a professional librarian. It is the process of putting information from catalogues into print or digital formats. It is an organized list of all the information resources that are available in a library, along with their bibliographic information. It is essentially the process of getting catalogue entries ready for a library. It identifies the materials held by a library on a certain topic as well as where they can be found. Its' outcome is usually an inventory that serves as access points to the library materials.

Statement of problems

In South-East Nigeria, university libraries are at different stages of adopting automated cataloguing services. Some institutions have fully integrated these systems, while others are in the early phases of implementation or yet to adopt them. This disparity provided a unique opportunity to comparatively study the impact of automation on job performance across varying levels of technological adoption. Consequently, the advent of automated cataloguing services has significantly transformed the operations of university libraries worldwide. However, the extent of this transformation and its implications on job performance among library staff in specific regions, such as South-East Nigeria, remains under-explored. These services, which utilizes technology to streamline the cataloguing process, promise to enhance efficiency, accuracy, and accessibility of library resources. These services systems are designed to reduce the manual effort required for cataloguing, potentially freeing up staff time for other essential tasks. This study seeks to investigate the impact of automated cataloguing services on the job performance of staff in Federal University libraries in South-East Nigeria, considering the varying degrees of adoption, associated challenges, and resultant effects on library operations.

Objective of the study

The general objective of the study is to investigate the impact of automated cataloguing services on academic library staff job performances in Federal Universities in South East Nigeria, while the specific objectives are to:

1. Identify the extent to which the adoption of automated cataloguing services redefines the traditional roles of the academic library staff job performances in Federal Universities in South-East Nigeria.

2. To determine the challenges associated with automated cataloguing services on academic library staff job performances in Federal Universities in South-East Nigeria.
3. To determine extent to which automated cataloguing services have impacted academic library staff job performances in Federal Universities in South East Nigeria.

Review of related literature

The implementation of automated cataloguing services in academic libraries has brought about significant changes in the way library staff carry out their duties. This review aims to examine existing literatures on the adoption of the automated cataloguing services on the job performances of academic library staff. According to Ken-Agbiriogu and Okorie (2021) in their study titled “Automation of acquisition, cataloguing and classification and staff job performance in university libraries in southeast, Nigeria, they stated that the adoption of automation stems from the need to, provide faster and better job output of library activities, wider access to information for clients, facilitate wider dissemination of information products and services, enable participating libraries in resource sharing activities, rapid communication with other libraries and professional peers and to ensure effective, efficient and time saving services delivery. This opinion tends to redefine the academic library staff job performances from the traditional role of library housekeeping operations. Hider, (2012), stated that the adoption of automated cataloguing systems minimize human error, ensuring greater consistency and accuracy in cataloguing. They relied on standardized metadata schemas and controlled vocabularies, which helps maintain uniformity in catalogue records. This consistency is crucial for effective information extraction and resource discovery. Also Revathi & Mohan (2022), stated that mobile cataloguing (M-OPAC) which is a Mobile Online Public Access Catalog provides simple search facility against the author, title, and subject, that this online public access catalog can be accessible through mobile phones and the search results is informative which contain details regarding the book, its availability in concise manner. University Leadership Council (2011), stated that we don’t need a thousand different descriptions of the same book and that the ability to standardize and share basic catalog entries eliminate a large portion of the need for specialized catalogers in academic libraries for practically all holdings. This action deploys/redefine the academic library staff functions and their job performances.

Murrey (2019), stated that incongruous data can result from various sources in original records, difference in cataloguing data, variation in data from different contributor can lead to problems in implementing automated cataloguing services. In the views of Davies (2021), he stated that since automated cataloguing involves the handling of large volume of data, scaling these system to process vast information efficiently remains a challenge. According to Nwosu and Obiano (2021), inadequate staff training in ICT-related skills, haphazard or inefficient implementation of automation tools, poor planning prior to library

automation adoption, use of automation software that is not results-oriented, use of a subpar Online Public Access Catalogue (OPAC) for online cataloguing of the library's e-resources, lack of necessary automation facilities and tools, inadequate funding, and unreliable power supply are some of the challenges faced in automated cataloguing services. Also in the opinion of Gonzalez, (2019), the idea of convincing librarians and other stakeholders to trust and adopt automated cataloguing system can vary differently, that the concerns about accuracy and reliability can lead to resistance, which can eventually lead to slow down of implementation and integration. According to Brown and Smith, (2017), automated cataloguing relies heavily on Natural Language Processes (NLP) to interpret and categorize content, that the algorithms can struggle with the nuances of human language, such as context, ambiguity, and idiomatic expression, that all these can lead to errors in automated cataloguing. In a research paper presented by Mishra, Thakur and Singh (2015), also identified and examined the key causes of automated cataloguing problems to include inadequate planning, a lack of funding or other affordable resources, a lack of resources and technology, a lack of professionals with the necessary skills, a lack of infrastructure, erratic power supplies, and other associated problems. According to the research conducted by Ajani and Buraimo (2021) on library automation services, stated that the automation services in the library comes along with some challenges which includes; lack of technical support from the vendor, lack of funding, high cost of application, attitude of library personnel and technophobia.

Onyebuchi, C.A., et al (2015), stated that, the introduction of automated cataloguing services system has transformed the manual cataloguing to Machine Readable Catalogues (MARC) similar to the cataloguing in publications on cassettes and books. They went further to state that Online Public Access Catalogue (OPAC) was adopted by academic libraries, using a Telnet client, and now users could search a small number of pre-synchronized indexes and peruse the ensuing display like how they had used the card catalogue before. As part of the impact of automated cataloguing services in academic libraries, Olagoke and Kolawole (2019), assessed the effect of library automation on the performance of librarians in South West, Nigeria. Findings from the study revealed that the performance of the academic librarians had improved by over 70% due to automated library services systems. In the study investigated by Odunola, Tella, Oyewumi, Ogunmodede and Oyetola (2019) titled: Evaluation of automated cataloguing system in Academic Libraries in Oyo State Nigeria. The study's findings showed that automated cataloging systems reduce the amount of time needed to catalog library resources. thereby making the entire cataloguing processes fast and efficiently effective. Nwosu and Obiano (2021), also stated that automated cataloguing services stand in the gap and ensure that the library's resources can be accessed anytime and any day by users to ensure a proper utilization of the library's resources.

Research Methodology

The survey research design was used for this study, because it involves data collection from all the academic library staff of the institution under investigation. A structured questionnaire was designed as an instrument for data collection. The population of the study consists of 299 respondents. However, only 231 questionnaires were returned, this constituted 77.26% response rate. These respondents were both male and female, with varied degree of academic qualifications. The questionnaire consisted of 24 items structured on a 5 point rating scale of Very High Extent (VHE) 5 points, High Extent (HE) 4 points, Moderate Extent (ME) 3 points, Low Extent (LE) 2 points and Very Low Extent (VLE) 1 points.

The questionnaire was in two parts, A and B. Part A covered information on personal data of the respondents while part B has section A, B and C. Section A has 8 items on how the adoption of automated cataloguing services redefined the traditional roles of the academic library staff job performances. Section B has 8 items on the challenges associated with automated cataloguing services on academic library staff job performances and Section C has 7 items on the how automated cataloguing enhanced academic library staff job performance in Federal universities in South East Nigeria.

Table 1: Distribution and returned questionnaire items by university libraries under investigation

Name of Institution	UNN	UNIZ IK	FUTO	AE- FUNAI	MOU A	Total
Number of items Distribute	75	51	117	16	40	299
Number of items Returned	55	40	89	14	33	231
Percentage (%) Returned	73.33	78.43	76.07	87.50	82.50	77.26

Data presentation

Research Question1: To what extent does the adoption of automated cataloguing services redefine the traditional role of the academic staff job performances in Federal University libraries in South -East Nigeria?

Table 2: Extent on the adoption of automated cataloguing services redefining the traditional role of the academic library staff job performances in Federal Universities in South -East Nigeria.

S/ N	ITEMS	UNN (N=55,)		UNIZIK (N=40		FUTO (N=89)		AE- FUNAI (N=14)		MOUA (N=33)	
		X	SD	X	SD	X	SD	X	SD	X	SD

1.	Status of application of automated cataloguing	3.1 3	1.0 9	3.1 5	0.9 5	3.0 8	1.1 2	3.2 1	1.0 5	3.0 6	0.7 8
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
2.	Extent in consistency and standardization	3.9 3	0.8 6	3.6 2	0.9 7	3.6 3	0.9 4	3.6 4	1.1 7	3.6 4	0.9 9
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
3.	Enhanced accuracy	4.0 0	0.5 6	3.9 0	0.9 5	3.7 0	0.9 5	3.7 1	0.8 2	3.8 2	0.8 1
		Dec = A		Dec = A		Dec =		Dec = A		Dec = A	
4.	Speed and efficiency	3.8 4	0.9 2	3.6 0	1.1 7	3.7 4	0.9 8	3.6 4	.93	4.5 4	0.9 5
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
5.	Increased accessibility	3.4 7	1.0 7	3.3 8	1.0 0	3.3 5	1.0 9	3.7 1	0.8 2	3.3 0	0.8 8
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
6.	Extent to adaptation to digital formats	2.9 6	1.1 0	3.0 0	1.0 5	3.7 4	1.0 8	2.0 0	1.3 0	3.1 8	1.0 7
		Dec = R		Dec = A		Dec = A		Dec = R		Dec = A	
7.	Shift in staff roles	2.4 7	0.8 6	3.6 0	0.9 8	3.0 4	0.9 0	3.5 0	0.7 6	2.2 7	0.9 4
		Dec = R		Dec = A		Dec = A		Dec = A		Dec = R	

8. Integration with linked data and semantic web	3.1 0	0.8 7	3.1 0	0.9 6	3.7 1	0.9 8	2.9 3	1.5 2	3.5 4	1.0 9
	Dec = A		Dec = A		Dec = A		Dec = R		Dec = A	
Cluster Mean & Cluster Standard Deviation	CM = 3.36		CM = 3.42		CM = 3.50,		CM = 3.29,		CM = 3.41,	
	CSD = 0.92		CSD = 1.00		CSD = 1.00		CSD = 1.05		CSD = 0.94	

Note: X = Mean; SD = Standard Deviation; Dec = Decision; A= Accept; R= Reject; UNN = University of Nigeria Nsukka; UNIZIK = Nnamdi Azikiwe University, Awka; FUTO = Federal University of Technology, Owerri; AE-FUNAI = Alex Ekwueme Federal University, Ndufu-Alike, Ikwo; MOUA = Michael Okpara University of Agriculture, Umudike.

The data presented in table 2 above revealed the automated cataloguing status in the institutions under investigation. In UNN, responses on the status of application of automated cataloguing, consistency and standardization, enhanced accuracy, speed and efficiency, increased acceptability and integration with linked data and semantic web were all accepted. These were revealed in the various mean and standard deviation of 3.13(1.09), 3.93(0.86), 4.00(0.56), 3.84(0.92), 3.47(1.07), 3.10(0.87) respectively. However, responses on adaptation to digital format and shift in staff roles were rejected and this was indicated in the mean responses of 2.96 and 2.47 respectively. In UNIZIK, there was a total acceptance in application of automated cataloguing, consistency and standardization, enhanced accuracy, speed and efficiency, increased acceptability, adaptation to digital formats, shift in staff roles and integration with linked semantic web. These were revealed in the various mean and standard deviation responses of 3.15(0.95), 3.62(0.97), 3.90(0.95), 3.60(1.17), 3.38(1.00), 3.00(1.05), 3.60(0.98), 3.10(0.96) respectively. At FUTO, there was acceptance in all listed items and these were revealed in the mean and standard deviation responses of 3.08(1.12), 3.63(0.94), 3.70(0.95), 3.74(0.98), 3.35(1.09), 3.74(1.08), 3.04(0.90) and 3.71(0.98) respectively. At AE-FUNAI, there was acceptance in six (6) out of the eight (8) items presented. The items accepted have the mean and standard deviation responses of 3.21(1.05), 3.64(1.17), 3.71(0.82), 3.64(0.93), 3.71(0.82) and 3.50(0.76) respectively and the items rejected have mean and standard deviation responses of 2.00(1.30) and 2.93(1.52) respectively. At MOUA, seven (7) out of the eight (8) items were accepted. The accepted items have the mean and standard deviation of 3.06(0.78), 3.64(0.99), 3.82(0.81), 4.54(0.95), 3.30(0.88), 3.18(1.07) and 3.54(1.09) respectively, while the rejected item has mean and standard deviation of 2.27(0.94).

Research Question 2: To what extent does the challenges associated with automated cataloguing affect academic library staff job performances in Federal University libraries in South -East Nigeria?

Table 3: Extent on the challenges associated with automated cataloguing affect academic library staff job performances in Federal Universities in South -East Nigeria.

S/ N	ITEMS	UNN (N=55)		UNIZIK (N=40)		FUTO (N=89)		AE- FUNAI (N=14)		MOUA (N=33)	
		X	SD	X	SD	X	SD	X	SD	X	SD
1.	Data quality concerns	3.6	0.7	3.3	0.9	3.9	1.0	3.5	1.0	3.7	0.8
		2	8	2	7	6	2	0	1	6	7
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
2.	Complexity of Natural Language Processes	4.4	0.9	3.8	0.9	3.7	1.0	3.7	0.9	4.2	1.1
		7	0	2	5	1	2	9	7	1	7
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
3.	Resistance to change	3.5	0.7	4.4	1.4	3.8	1.0	3.7	1.0	3.7	0.9
		8	4	5	0	4	8	1	6	9	6
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
4.	Staff redeployment concerns	3.8	0.9	3.7	0.6	3.7	1.0	3.7	1.1	3.7	1.1
		7	1	0	9	4	7	9	9	9	1
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
5.	Scalability	3.1	0.7	3.6	1.0	3.5	1.0	3.3	0.8	2.7	1.0
		2	9	0	0	5	1	6	4	9	6
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = R	
6.	Cost implication	4.5	0.9	4.4	1.0	3.9	1.0	3.7	0.8	4.6	1.1
		1	4	0	8	7	7	1	2	7	5

	Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
7. Vendor dependence	3.2	1.1	3.4	1.2	3.6	0.8	3.6	1.1	3.4	1.0
	9	0	0	1	4	8	4	4	2	6
	Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
8. Users training and awareness	4.0	1.0	4.5	1.5	4.0	1.1	4.0	1.1	4.4	1.0
	2	9	0	1	1	3	0	7	8	0
	Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
Cluster Mean & Cluster Standard Deviation	CM = 3.81,		CM = 3.89		CM = 3.80,		CM = 3.69,		CM = 3.86,	
	CSD = 0.91		CSD = 1.05		CSD = 1.04		CSD = 1.03		CSD = 1.05	

Note: X = Mean; SD = Standard Deviation; Dec = Decision; A= Accept; R= Reject; UNN = University of Nigeria Nsukka; UNIZIK = Nnamdi Azikiwe University, Awka; FUTO = Federal University of Technology, Owerri; AE-FUNAI = Alex Ekwueme Federal University, Ndufu-Alike, Ikwo; MOUA = Michael Okpara University of Agriculture, Umudike.

The data presented on table 3 above revealed the extent of the challenges automated cataloguing has on academic library staff job performances. In UNN, the respondents affirmed to all the challenges postulated on automated cataloguing in their job performances. These were shown in the mean and standard deviation responses as follows: 33.62(0.78), 4.47(0.90), 3.58(0.74), 3.87(0.91), 3.12(0.79), 4.51(0.94), 3.29(1.10) and 4.02(1.09) respectively. At UNIZIK, the respondents also affirmed to all the items presented on the challenges of automated cataloguing in the institution. The mean and standard deviation responses are 3.32(0.97), 3.82(0.99), 4.45(1.40), 3.70(0.69), 3.60(1.00), 4.40(1.08), 3.40(1.21) and 4.50(1.51) respectively. To further affirm the challenges of automated cataloguing, all the respondents at FUTO responded positively to all the challenges of automated cataloguing presented. These were shown in the following mean and standard deviation responses of 3.96(1.02), 3.71(1.02), 3.84(1.08), 3.74(1.07), 3.55(1.01), 3.97(1.07), 3.64(0.88) and 4.01(1.13) respectively. To buttress further that the challenges of automated cataloguing has effect on the academic library staff job performance, the respondents of AE-FUNAI respond positively to all the items presented and these were shown in the following mean and standard deviation of 3.50(1.01), 3.79(0.97), 3.71(1.06), 3.79(1.19), 3.36(0.84), 3.71(0.82), 3.64(1.14) and 4.00(1.17) respectively. At MOUA, academic library staff

responded positively to seven (7) out of the eight (8) items presented. The positive items have the following mean and standard deviation responses of 3.76(0.87), 4.21(1.17), 3.79(0.96), 3.79(1.11), 4.67(1.15), 3.42(1.06) and 4.48(1.00) respectively, while the rejected item is 2.79(1.06) mean and standard deviation.

Research Question 3: To what extent have automated cataloguing enhanced academic library staff job performances in Federal University libraries in South -East Nigeria?

Table 4: Extent on how automated cataloguing enhanced academic library staff job performances in Federal Universities in South -East Nigeria

S/ N	ITEMS	UNN (N=55)		UNIZIK (N=40)		FUTO (N=89)		AE- FUNAI (N=14)		MOUA (N=33)	
		X	SD	X	SD	X	SD	X	SD	X	SD
1.	Efficiency gains	3.35	0.93	4.50	1.17	3.81	0.91	4.07	0.73	3.51	1.09
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
2.	Time reallocation to higher-value tasks	2.67	1.20	3.25	0.91	3.79	0.98	3.79	1.25	4.03	1.46
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
3.	Improved data accuracy	3.69	0.90	3.02	1.11	3.98	1.09	3.86	1.17	3.76	0.91
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
4.	Facilitation of digital resource management	3.14	0.72	4.00	0.84	3.90	0.87	3.14	1.20	3.70	1.08
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
5.	Enhanced users	3.8	1.0	3.9	1.0	3.6	1.2	3.4	1.1	4.2	1.1

experience	1	9	6	0	5	4	3	5	4	7
	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A
6. Professional development opportunities	3.3	1.0	3.0	1.1	3.5	1.0	3.7	1.1	4.1	1.1
	6	0	3	1	4	0	1	3	8	8
	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A
7. Adaptability evolving technologies	4.1	0.9	3.3	1.2	3.2	1.0	4.0	1.2	3.8	0.7
	2	6	5	5	9	0	7	6	5	5
	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A	Dec = A
Cluster Mean & Cluster Standard Deviation	CM = 3.02,	CM = 3.59,	CM = 3.71,	CM = 3.71,	CM = 3.40,	CM = 3.40,	CM = 3.40,	CM = 3.40,	CM = 3.40,	CM = 3.40,
	CSD = 0.97	CSD = 1.02	CSD = 1.01	CSD = 1.13	CSD = 1.09	CSD = 1.09	CSD = 1.09	CSD = 1.09	CSD = 1.09	CSD = 1.09

Note: X = Mean; SD = Standard Deviation; Dec = Decision; A= Accept; R= Reject; UNN = University of Nigeria Nsukka; UNIZIK = Nnamdi Azikiwe University, Awka; FUTO = Federal University of Technology, Owerri; AE-FUNAI = Alex Ekwueme Federal University, Ndufu-Alike, Ikwo; MOUA = Michael Okpara University of Agriculture, Umudike.

The data presented in table 4 above reveals the extent automated cataloguing enhanced academic library staff job performances in Federal Universities in South East Nigeria. At UNN, respondents affirms to efficiency gains, improved and accuracy, facilitation to digital resources, enhanced users experiences, professional development opportunities and adaptability evolving technologies. They all have the mean and standard deviation of 3.35(0.93), 3.69(0.90), 3.14(0.72), 3.81(1.09), 3.36(1.00) and 4.12(0.96) respectively. The only item rejected is the reallocation to higher level task and this has the mean and standard deviation of 2.67(1.20). At UNIZIK, the respondents affirms to all the seven (7) items listed for consideration. They have the mean and standard deviation of 4.50(1.17), 3.25(0.91), 3.02(1.11), 4.00(0.84), 3.90(1.00), 3.03(1.11) and 3.35(1.25) respectively. Respondents in FUTO was not left out in affirming to all the items presented. Their mean and standard deviation responses are as follows: 3.81(0.91), 3.79(0.98), 3.98(1.09), 3.90(0.87), 3.65(1.24), 3.54(1.00) and 3.29(1.00) respectively. Respondents at AE-FUNAI also affirms to all the items presented. They have the mean and standard deviation responses of 4.07(0.73), 3.79(1.25), 3.86(1.17), 3.14(1.20), 3.43(1.15), 3.71(1.13) and 4.07(1.26) respectively. All the seven (7) items presented to respondents at MOUA for

consideration were all affirmed to. They have the mean and standard deviation of 3.51(1.09), 4.03(1.46), 3.36(0.91), 3.70(1.08), 4.24(1.17), 4.18(1.18) and 3.85(0.75) respectively.

Discussion of findings

Findings from the study shows the extent to which the adoption of automated cataloguing services redefine the roles of staff of academic libraries job performances in Federal University libraries is South East Nigeria. All the institutions under investigation affirmed that they have applied automated cataloguing, they all agreed that automated cataloguing enhanced accuracy, provides speed and efficiency, increased accessibility, adapt to digital format, shift in staff roles, integrated with linked data and semantic webs. It's only at UNN that the staff objected that it does not create shift in staff role. The affirmation to all these items aligns with the views of Onyebuchi, C.A., et al (2015), that, indeed the introduction of automated cataloguing services system has positively transformed the method of rendering cataloguing services and also improved on job performances.

Further results from the investigation demonstrated that there were challenges associated with automated cataloguing services, which in-turn affected the academic library staff job performances in Federal University libraries in South East Nigeria. All the institutions under investigation revealed that data quality concerns, Natural Language Processes (NLP), resistance to change, staff redeployment concerns, Scalability, cost implication, vendor dependence and users training and awareness are some of the challenges of automated cataloguing services which negatively affect academic library staff job performances. All these findings agreed with the opinion of Murray (2019), Gonzalez (2019), Davis (2021) and Brown and Smith (2017).

The results of the investigation further demonstrated the extent in which automated cataloguing has enhanced academic library staff job performances in Federal University libraries in South East Nigeria. The study reveals that academic library staff job performances have been enhanced through efficiency gains, time reallocation to higher-values task, improved data accuracy, facilitation of digital resource management, enhanced users experience, professional development opportunities and adaptability evolving technologies. These findings aligned with Odunola et al (2021), that automated cataloguing services saves time and also enhances the job performances of the professional librarians.

Conclusion

In conclusion, the application of automated cataloging systems have reshaped the job performances of academic library staff in Federal Universities in South East Nigeria by enhancing accuracy and efficiency, and user-centric services while creating opportunities for professional growth and adaptation to technological change. The study have been able to highlights skill gaps, resistance to change, resources constraints, staff redeployment concerns, vendors dependence, users training awareness etc.as some of the difficulties related to

automated cataloguing services in Federal University in South East Nigeria that affected academic library staff job performances. However, automated cataloguing services have significantly enhanced the job performances of academic library staff of Federal University in South East Nigeria by improving their efficiency, accuracy, resource discovery, collection management, digital initiatives, professional development, and user-centric services.

This study have contributed valuable insights to the broader discourse on library management, technological integration, and workforce dynamics in the academic setting. The results of this study have provided guidance to policymakers, library professionals, and university administrators, enabling them to make decisions that are in line with the changing requirements and standards of contemporary university libraries in South East Nigeria.

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