



EFFECT OF AUTOMATION ON ORGANISATIONAL STRUCTURE, JOB PERFORMANCE AND COMMUNICATION IN UNIVERSITY LIBRARIES IN SOUTH WEST NIGERIA

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ABSTRACT: *The paper examined the effect of automation on organisational structure, job performance and communication in university libraries in South West, Nigeria. The survey research design was adopted. A questionnaire and observation checklist was the instrument used to collect the data. The sample for the study consisted of 607 library personnel in six (6) university libraries in South West, Nigeria, stratified and judgemental sampling was used to sample 442 library staff for the study. Descriptive statistics were used to analyse data collected on the research questions developed while for inferential statistics, Kendall-tau was used to test hypotheses. Findings from the study revealed that none of the university libraries studied has been to implement full automation of their operations, only acquisitions have been automated across the board in the four (4) university libraries. Also, the findings revealed that automation has enabled a more flexible working environment, affected the pattern of staffing by specialisation, and bridged the gap between communication flow through the use of a variety of information and technology communication (ICT) tools. Furthermore, the study identified that the various constraints to automation in university libraries are irregular power supply, inadequate funding, lack of infrastructural facilities, and staff resistance to training. The study recommended that university and library management of the university libraries studied should make provision for full automation of library operations and services. This will go a long way in adopting new structures in line with technological advancements for greater flexibility, facilitating staff creativity at work, help improve collaboration and resource sharing through the use of automation tools for communication.*

KEYWORDS: Automation Organisational Structure Job performance Communication University libraries



INTRODUCTION

Throughout the ages, university libraries have undergone considerable and systematic changes in the way they acquire, store, catalogue, access and disseminate information. The introduction of new technologies in the 21st century has made this possible by repositioning library operations from manual to an automated based system. Library operations such as: cataloguing and classification, reference services, circulation services, and serial management have become automated in various libraries to pave the way for efficient and effective utilisation of library resources for proactive service delivery. This has made it possible and easy to automate library operations, facilitating information search, communication and research by staff and students of university libraries. This is evident in Manjunatha (2007) who affirmed that there are clearly visible impacts as a result of advancements in technology on information resources, services and people. Similarly, Chisita and Shoko (2010) observed that automation has transformed the operations, services and products furnished by libraries and other information processing institutions.

According to Bello (2013), automation refers to the bringing together of a variety of systems and processes that function with minimal or no human involvement. However, automation refers to the application of information and communication technologies (ICTs) to housekeeping, information retrieval and communication within the library environment. In the same vein, Uddin (2016) described library automation as the mechanisation of library activities using a variety of information and communication technologies. The information and communication technologies utilised for automation in libraries are; computers, PDAs (Personal Digital Assistants), Workstations, Servers, V-Sats, Radio Masts and peripherals such as scanners, photocopiers, barcode readers and RFID scanners. He further added that other emerging technologies allow interaction through the internet. This is supported by Kelly and Parker (2007) who suggested that technologies such as social media could be used for internal communication and to communicate with patrons promoting new books and providing subject guides, current awareness, offering subject-related reference services and customised catalogue searches. Automation relieves professional staff from clerical work, enables rapid communication with other libraries, improves access to remote users, and facilitates wider dissemination of information products and services. The application of automation in university libraries is primed at enhancing functions and services. Sindhav (2014) noted the areas in which automation can be applied in University libraries are:

1. Acquisition of information materials.
2. Cataloguing and indexing.
3. Circulation services.
4. Serials control.
5. Library administration and management.
6. Information retrieval.
7. Inter-library loan.
8. Online access to electronic information resources.
9. Developing institutional repository.



From the aforementioned, it is obvious that the application of automation to any of these areas in university libraries is a potential facilitator towards enhancing operations and services. Library staff can also utilise the technologies involved to facilitate decision-making processes through effective communication.

Sablynski (2012) referred to organisational structure as “ the way jibs and tasks are formally separated, assembled, and coordinated”. Similarly, Underdown (2012) defined organisational structure as “ the formal system of task and reporting relationships that controls, coordinates and motivates employees so that they team up to achieve the goals of an organisation”. In the context of the university library, the competence of work, the readiness and enthusiasm of library staff and coordination among the librarian and subordinates for the flow of plans towards achieving objectives are directed and made possible by the organisational structure (Herath, 2007). Sine, Mitsuhashi and Kirsh (2008) revealed the four important elements of organisational structure as; centralisation, formalisation, hierarchical levels and departmentalization. Furthermore, Schweiren (2008) stated that the key elements in an organisational structure are: work specialisation, departmentalization, the span of control, centralisation, decentralisation and formalisation.

Performance is of high relevance in organisations and individuals alike. Showing high performance while executing a task results in satisfaction and feelings of self-efficacy (Kanfer & Ackerman, 2005). From an employee’s perspective, job performance is the execution of tasks daily. From a supervisor’s view, results are the key elements for appraising job performance as results are more important to employers. This is evident in Sarmiento and Beale (2007) who referred to job performance as a result of the abilities and skills of personnel and their use to maximise productivity. The application of new technologies in the work environment is to enhance work performance by making it more effective and efficient. For the library to achieve its goals, there is a need to improve the efficiency of the housekeeping functions, decision-making, services and communication between departments and other libraries. Advancements in technology are not limited to changing how small groups within an organisation interact but are also evident in the decision-making process in organisations.

University libraries rely on communication among members of staff to set and achieve their objectives. According to Ugwuanyi and Ifidon (2013), communication is a means of conveying one’s ideas, opinions, beliefs and impressions to others. For communication to achieve its purpose in university libraries, it must be effective. Effective communication makes for prompt answers to inquiries and requests (Tubbs and Moss, 2008). The importance of communication in university libraries cannot be overemphasised. This is evident in Okon (2009) who observed that university library management and staff spend between 85 to 90% of their time communicating during the day. When information is communicated effectively, the performance of staff is enhanced and they can effectively carry out their functions of information delivery to others. Ramey (2013) identified a variety of communication tools that can facilitate communication in university libraries. These tools include: video conferencing, Bluetooth-enabled devices, remote databases, computers, social media apps, chat rooms, ticketing and issue-tracking software, blogs, emails and podcasts. Also, Dhanavandan, Esmail and Mani (2008) noted that communication tools used in facilitating communication in university libraries include: Email, internet, intranet, mobile phones, video conferencing and voice mail.



From the foregoing, it is imperative to state that automation plays a vital role in the organisational structure, job performance and communication of university libraries.

Statement of the problem

In an ideal situation, the dynamic nature of emerging technologies is expected to create the need for a new work environment and work methods with positive implications on the performance levels of staff. Also, university libraries are expected to adopt a wide variety of communication tools to facilitate the effective communication of information for decision-making between hierarchical levels and users. Unfortunately, the actual situation seems that most university libraries have not fully leveraged the potential and promises of these emerging technologies. Preliminary investigation showed that most university libraries are at different automation and implementation levels. Could this phenomenon have negative implications on the organisational structure and job performance of staff in university libraries? Also, could the delay of some of these university libraries in adopting the use of effective communication tools for efficient communication and dissemination of information be responsible?

It is in light of the above, that this study investigated the impact of automation on organisational structure, job performance and communication in university libraries in South West, Nigeria.

Objectives of the study

The main objective of this study is to investigate the effect of automation of organisational structure, job performance and communication in university libraries in South West, Nigeria. The specific objectives are to:

1. Identify the automation status of university libraries in university libraries in South West, Nigeria.
2. Determine the functional areas in which automation has been implemented in university libraries in South West, Nigeria.
3. Ascertain the impact of automation on the organisational structure of university libraries in South West, Nigeria.
4. Determine the impact of automation on the job performance of the staff of university libraries in South West, Nigeria.
5. Determine the impact of automation on the communication of university libraries in South West, Nigeria.
6. Determine the constraints to automation in university libraries in South West, Nigeria.

Research Questions

The study is focused on answering the following research questions:

1. What is the automation status of university libraries in university libraries in South West, Nigeria?



2. What are the functional areas in which automation has been implemented in university libraries in South West, Nigeria?
3. What is the impact of automation on the organisational structure of university libraries in South West, Nigeria?
4. What is the impact of automation on the job performance of the staff of university libraries in South West, Nigeria?
5. What is the impact of automation on the communication of university libraries in South West, Nigeria?
6. What are the constraints to automation in university libraries in South West, Nigeria?

Hypotheses

This study is guided by the following hypotheses and was tested at a 5% level of significance.

H₀₁: Automation has no significant impact on organisational structure in university libraries.

H₀₂: Automation has no significant impact on job performance in university libraries.

H₀₃: Automation has no significant impact on communication in university libraries.

Scope of the study

The scope of the study is to evaluate the impact of automation on organisational structure, job performance and communication in university libraries in South Western, Nigeria. The study will focus on six (6) universities in the South Western Zone of Nigeria. These are the University of Ibadan, Oyo state, Afe Babalola University, Ekiti State, Federal University of Technology, Akure, Ondo State, Bells University of Technology, Ogun State, Covenant University, Ogun State and Adekunle Ajasin University, Ondo State.

Significance of the study

The findings of this study would be beneficial to the management of university libraries. It would assist the management of university libraries in understanding the importance and areas in which automation is to be implemented in their libraries and the impact it has on the organisational structure, job performance and communication.

The findings of this study would also educate the library management on what automated services users consider beneficial. This would further guide the university libraries on the need to acquire various technological devices and also keep up with technological advancement so as to be of better service to the demands of the present-day user.

METHODOLOGY

Survey research design was adopted for this study. This is to establish the relationship between the independent variable and dependent variables. In this study, the independent variable is



automation while the dependent variables are organisational structure, job performance and communication in university libraries in South West, Nigeria.

The target populations for this study comprised all library staff of university libraries in South West, Nigeria. From the statistics of the university libraries of each university, there was a total of six hundred and seven (607) library staff in the university libraries. Purposive sampling was used to sample the population for the study. The purposive sampling technique, according to Ibrahim (2013), is a form of non-probability sampling where the researcher based on his/her knowledge of the population, handpicks certain groups as representative of the entire population. The six (6) universities in the South Western Zone of Nigeria, were grouped according to strata using the status or types of the universities that is, conventional and specialised universities. After which, four (4) out of the six (6) were purposively selected for the study. The study selected two conventional (University of Ibadan, Oyo State and Covenant University, Ogun State) and two specialised universities (Federal University of Technology, Akure and Bells University, Ogun State). The sample size of the four (4) universities is 442. These universities were purposively selected based on their automation status. Apart from this, the selection of these universities for the study has demonstrated the inclusion of two conventional and specialised universities for a good spread.

442 questionnaires were administered to library staff in the selected universities in the South West, out of which 247 copies were returned and adequately filled. The result presented is based on 247 copies of the questionnaire that were accurately filled and returned. Descriptive statistics such as frequency counts, percentages, mean and standard deviation were used to analyse the data collected while inferential statistics such as Kendal Tau were used to test for a relationship between the variables at 0.05 levels of significance.

Presentation and Analysis of Data

Question one: what is the automation status of university libraries in South West Nigeria?

S/N	ITEMS	UIL		COVUNIVL		FUTAL		BELLSL	
		YES	NO	YES	NO	YES	NO	YES	NO
1	Fully Automated (All operations have been automated)		x		X		x		x
2	Partially Automated (at least one operation is automated)	√		√		√		√	
3	Not Automated (No automation of operations)		x		X		x		x

Table 1

Source: Field Survey 2022 (Observation Checklist)

Key: √ = Yes, X = No



UIL – University of Ibadan Library; **COVUNIL**– Covenant University Library; **FUTAL** – Federal University of Technology Akure Library and **BELLSL** –Bells University Library

The result in Table 1 revealed that University of Ibadan Library, Covenant University Library, Federal University of Technology Library, Akure and Bells University Library were all observed to be partially automated. None of the university libraries had all operations fully automated. Summarily, all the university libraries studied are partially automated. The findings are similar to the statement of Abbas (2014) in a survey of African libraries, who revealed that of the 40 libraries surveyed, the majority of them (65%) are yet to fully automate their operations. Most libraries began with cataloguing, but have neither finished that nor moved to other processes, 21% are yet to start while 15% considered are fully automated.

Research Question 2: What are the functional areas in which automation has been implemented in university libraries in South West, Nigeria?

Table 2

S/N	OPERATIONS	UIL	COVUNI L	FUTAL	BELLSL	Total
1	Acquisitions	√	√	√	√	4
2	References	x	x	x	X	0
3	Circulation	√	√	√	√	4
4	Indexing and Abstracting	x	x	x	X	0
5	Serials services	√	√	x	X	2
6	Current Awareness Service	x	x	x	X	0
7	OPAC	√	√	x	√	3
8	Selective Dissemination of Information	√	√	√	X	3
	Total	5	5	3	3	16

Field Survey 2022 (Observation Checklist)

Key: √ = Available, x = Not Available

UIL – University of Ibadan Library; **COVUNIL**– Covenant University Library; **FUTAL** – Federal University of Technology Akure Library and **BELLSL** –Bells University Library

Table 2 revealed that in University of Ibadan Library; acquisitions, circulations, serials, cataloguing and selective dissemination of information have been automated except references and current awareness services. In the covenant university library, acquisitions, circulation, serials, cataloguing and selective dissemination of information have been automated while references, indexing, abstracting and current awareness services are yet to be automated. Also, in the Federal University of Technology Akure library, acquisitions, circulations, and selective dissemination of information have been automated with the exception of references, indexing, abstracting, serials, and cataloguing services. And finally, in Bells University library, only acquisitions, circulations and cataloguing have been automated. This is in agreement with the findings of Adegboro (2010) in a study of automation of two Nigerian libraries, which revealed



that libraries have keyed into the potentials of automation and are converting from manual to online public access catalogue and their circulation routines have been computerised with the use of library management software such as KOHA.

Research Question 3: What is the impact of automation on the organizational structure of university libraries in South West, Nigeria?

Table 3

S/ No	STATEMENTS	SA 5	A 4	D 3	SD 2	UD 1	N	FX	\bar{X}	StD
1.	Use of automation has affected the chain of command in the library	84	112	20	12	19	247	977	3.96	0.96
2.	Automation has helped improve my level of decision-making	53	68	63	35	28	247	782	3.17	0.17
3.	The pattern of staffing is affected by specialisation in automated operations and services.	96	87	32	18	14	247	952	3.85	0.85
4.	Automation has changed the way in which jobs are standardised	76	125	23	11	12	247	973	3.94	0.94
5.	Automation has helped centralised decision-making	66	94	29	24	34	247	890	3.60	0.60
6.	Automation has affected the way in which jobs are grouped together	108	71	13	15	40	247	985	3.99	0.99
7.	Automation has affected the degree to which tasks are subdivided into jobs.	33	40	75	53	46	247	666	2.70	0.30
8.	Automation has enabled a more flexible work environment	65	125	14	12	31	247	958	3.88	0.88
9.	Automation has led to the relative retention of decision-making to top management	37	42	69	42	57	247	704	2.85	0.15
10.	Automation has made the systematic delegation of authority easier	117	78	20	18	14	247	997	4.04	1.04
Sectional Mean									3.60	0.60



The result in Table 3 revealed that there is a positive effect of automation on organisational structure. This is because the respondents indicated that automation has made the systematic delegation of authority easier, automated has affected the chain of command in the library, automation has enabled a more flexible work environment, and the pattern of staffing has been affected by specialisation in automated operations and services, and automation has helped to improve the level of decision making. This conforms to the findings of Adedoyin, Adigun and Tomomowo-Ayodele (2013) who revealed in research on specialisation among staff in Nigerian university libraries that delegation of authorities led to specialisation on a variety of technologies and has made their work easier.

Research Question 4: What is the impact of automation on the job performance of the staff of university libraries in South West, Nigeria?

Table 4

S/No	STATEMENTS	SA 5	A 4	D 3	SD 2	UD 1	n	FX	\bar{X}	StD
1.	Automating my job has made me more productive	45	87	62	37	16	247	782	3.17	0.17
2.	Using automation tools has made my job easier	86	91	34	25	11	247	920	3.72	0.72
3.	Automation has made my job more effective	105	73	28	20	21	247	956	3.87	0.87
4.	I have found automation useful in the performance of my job	111	76	17	11	32	247	1000	4.05	1.05
5.	I have been able to perform operations timeously	58	82	44	34	29	247	827	3.35	0.35
6.	Automation has enabled me to deliver quality service to users	79	92	37	21	18	247	912	3.69	0.69
7.	I have been able to mitigate risks with the help of automation devices	70	53	20	41	63	247	832	3.37	0.37
8.	Automation has improved my decision-making	65	94	32	19	37	247	895	3.62	0.62
9.	Automation has enabled me to get creative in my work	29	36	76	81	25	247	597	2.42	0.58
10.	Automation has enabled me to perform my work with less dependency on others	73	97	26	15	36	247	928	3.76	0.76
Sectional Mean									3.50	0.50

Key: SA = Strongly Agree, A = Agree, UND = Undecided, D =Disagree, SD = Strongly Disagree



The result in Table 4 showed that there is an effect of automation on job performance in university libraries in South West, Nigeria. Automation has affected the way services are delivered to users, it has made jobs more effective, it has made jobs productive and enabled the performance of work with less dependency on others. It also revealed that automation has helped in the mitigation of risks; it has improved decision-making, and the ability to perform operations timeously. Furthermore, the study revealed that automation has no effect on creativity at work. This conforms to the findings of Pfano and Beharry (2016) who revealed that automation improved performance if they are effectively managed through communication between management and employers.

Research Question 5: What is the impact of automation on the communication of university libraries in South West, Nigeria?

Table 5

S/No	STATEMENTS	SA 5	A 4	D 3	SD 2	UD 1	n	FX	\bar{X}	StD
1.	use of automation tools has helped to make communication processes more convenient and easier	107	85	11	19	25	247	991	4.01	1.01
2	I have been able to communicate information in a timely manner with automation tools	88	95	18	13	33	247	968	3.92	0.92
3.	I have been able to use automation tools to selectively disseminate information	94	77	17	16	43	247	957	3.87	0.87
4.	The use of automation tools has enabled me to share resources and information with other libraries	97	62	53	14	21	247	941	3.81	0.81
5.	The use of automation tools has affected the conventional method of file movement across units	85	81	44	17	20	247	935	3.79	0.79
6.	The use of automation tools has enabled me to collaborate more with my colleagues in communication	75	91	48	13	20	247	929	3.76	0.76



7.	The use of automation tools has enabled me to bridge the gap of conventional communication flow	69	87	53	24	14	24 7	91 4	3.70	0.70
8.	Automation tools have provided a common link for management and staff in their communication abilities	71	58	83	14	21	24 7	88 5	3.58	0.58
9.	I have been able to use automation tools to communicate current awareness services	69	59	76	19	24	24 7	87 1	3.53	0.53
10.	The use of automation tools has allowed an instant exchange of feedback between units	52	75	48	34	38	24 7	81 0	3.28	0.28
Sectional Mean									3.73	0.73

The result in Table 5 revealed that the use of automation tools has helped made communication processes more convenient and easier; helped in the communication of information in a timely manner; use automation tools to selectively disseminate information; enabled resource and information sharing with other libraries; affected the conventional movement of files across units; enabled collaboration with colleagues; bridged the gap of communication flow; provided a common link for management and staff in their communication abilities, use automation tools to communicate current awareness services and allow the instant exchange of feedback across units. The findings corroborate with that of Owoeye and Dahunsi (2014) on the role of communication in effective service delivery in Ekiti State University Library. The authors revealed in their findings that staff uses mobile phones to pass information across the library, use the intercom, use email and use social networks such as Facebook, Twitter and Whatsapp to communicate in the library and with the external world.



Research Question 6: what are the constraints to automation in university libraries in South West, Nigeria?

Table 6

S/No	STATEMENTS	SA 5	A 4	D 3	SD 2	UD 1	n	FX	\bar{X}	StD
1.	Irregular power supply	95	81	20	17	34	24 7	95 8	3.88	0.88
2	Inadequate funding/economic resources	86	96	23	19	23	24 7	94 8	3.84	0.84
3.	Lack of proper planning by university library management	72	63	34	25	53	24 7	81 7	3.31	0.31
4.	Lack of skilled or trained staff/professional	64	62	14	54	53	24 7	80 9	3.28	0.28
5.	Lack of infrastructural facilities	46	55	71	43	32	24 7	73 1	2.96	0.04
6.	Inadequate manpower	29	48	65	75	30	24 7	71 2	2.88	0.12
7.	Inadequate resources and technology	36	44	41	60	66	24 7	66 5	2.69	0.31
8.	Staff resistance to training	32	38	48	58	71	24 7	64 3	2.60	0.40
9.	Lack of support by library Management	27	36	43	65	76	24 7	61 4	2.49	0.51
10.	Absence of committee consultants/computer experts	29	36	25	76	81	24 7	59 7	2.42	0.58
Sectional Mean									3.04	0.04

Key: SA = Strongly Agree, A = Agree, UND = Undecided, D =Disagree, SD = Strongly Disagree

The result in Table 6 revealed that the study revealed that irregular power supply; inadequate funding/economic resources; lack of proper planning by management and lack of skilled or trained staff are the constraints of automation in university libraries in South West, Nigeria. This corroborates the findings of Gbadamosi (2012) who revealed that lack of steady funding, erratic power supply, and lack of skilled staff are the challenges to automation in Emmanuel Alayande College of Education, Oyo. Furthermore, the study revealed that lack of infrastructural facilities; inadequate manpower; inadequate resources/technology; Staff resistance to training; Lack of support of library management and Absence of committee



consultants/computer experts are not constraints facing automation in university libraries. This could be a result of the intervention programme by TETFUND which has provided infrastructural facilities, made provision for staff training, and made provision for information and communication technology facilities. This corresponds with the findings of Boateng, Agyemang, and Dzandu, (2014). The authors examined the pros and cons of library automation in a resource-challenged environment. Findings from their study highlighted retrospective conversion, lack of local experts, lack of trained staff, unstable power supply, desertion of jobs, and attitude of library management as the challenges that confronted the library.

Test of Hypothesis

Hypothesis 1: Automation has no significant effect on the organisational structure of University Libraries in South West, Nigeria.

Table 7: Automation has no significant effect on the organisational structure in University libraries in South West Nigeria

Correlations

		Automation	Organizational Structure
Kendall's tau_b Automation	Correlation Coefficient(r)	1.000	.769**
	Sig. (2-tailed)	.	.000
	N	247	247
Organizational Structure	Correlation Coefficient (r)	.769**	1.000
	Sig. (2-tailed)	.000	.
	N	247	247

** . Correlation is significant at 0.05 level (2-tailed).

Table 7 shows there is an effect of automation on the communication of staff in university libraries in South West Nigeria, ($r = 0.769$, $N=247$, $p<001$). Where $r =$ Kendall's tau_b correlation coefficient and $p =$ level of significance. Since, the $r = 0.769$ which is closer to 1, this implies there is a significant effect of automation on communication in university libraries in South West Nigeria. Therefore, the null hypothesis is rejected.

Hypothesis 2: Automation has no significant effect on job performance in university libraries in South West Nigeria

Correlations

		Automation	Job Performance
Kendall's tau_b Automation	Correlation Coefficient(r)	1.000	.722**
	Sig. (2-tailed)	.	.000
	N	247	247
Job Performance	Correlation Coefficient (r)	.722**	1.000



	Sig. (2-tailed)	.000	.
	N	247	247

**. Correlation is significant at 0.05 level (2-tailed).

Table 8 shows there is an effect of automation on job performance in university libraries in South West Nigeria, ($r = 0.722$, $N=247$, $p<001$). Where $r =$ Kendall's tau b correlation coefficient and $p =$ level of significance. Since, the $r = 0.722$ which is closer to 1, this implies there is a significant effect of automation on the job performance of the staff of university libraries in South West Nigeria. Therefore, the null hypothesis is rejected.

Hypothesis 3: Automation has no effect on communication in university libraries in South West Nigeria

Correlations

		Automation	Communication
Kendall's tau_b Automation	Correlation Coefficient(r)	1.000	.803**
	Sig. (2-tailed)	.	.000
	N	247	247
	Communication Correlation Coefficient (r)	.803**	1.000
	Sig. (2-tailed)	.000	.
	N	247	247

**. Correlation is significant at 0.05 level (2-tailed).

Table 9 shows there is an effect of automation on the communication of staff in university libraries in South West Nigeria, ($r = 0.803$, $N=247$, $p<001$). Where $r =$ Kendall's tau_b correlation coefficient and $p =$ level of significance. Since, the $r = 0.803$ which is closer to 1, this implies there is a significant effect of automation on communication in university libraries in South West Nigeria. Therefore, the null hypothesis is rejected.

SUMMARY OF FINDINGS

From the result of the study, none of the university libraries studied has been able to implement full automation of their operations. University of Ibadan and Covenant University library have been able to automate five (5) operations which are acquisitions control, circulation, cataloguing, serials services and selective dissemination of information. Only acquisitions have been automated across the board in the four university libraries. The study indicated that automation has enabled a more flexible working environment, affected the pattern of staffing by specialisation, and bridged the gap between communication flow through the use of a variety of information and technology communication (ICT) tools. Also, the study identified that the various constraints to automation in university libraries are irregular power supply, inadequate funding, lack of infrastructural facilities, and staff resistance to training. Furthermore, the study



revealed that automation has a significant effect on organisational structure, job performance and communication in the university libraries in South West, Nigeria.

CONCLUSION

University libraries in South West, Nigeria are partially automated. This means that the inability of these university libraries to imbibe full automation will affect library operations and services. The study revealed that automation did not affect the degree to which jobs are divided into tasks and the retention of decision-making in library management. Also, automation has no effect on staff creativity at work. The study revealed that communication is affected by the use of communication tools. Finally, the study showed that the major constraints to library automation are irregular power supply, inadequate funding, and lack of proper planning by management.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are hereby made;

1. The university and library management should make provision for full automation of library operations and services. This will go a long way in adopting new structures in line with technological advancements for greater flexibility, facilitating staff creativity at work, help improve collaboration and resource sharing through the use of automation tools for communication.
2. The university and library management of the universities in South West, Nigeria should endeavour to provide alternative power supply such as solar panels and inverters to support the regular power supply.
3. The university authorities and library management should look inwards and come up with additional ways of generating funds to complement the budgetary allocation from the government. The university libraries can use their e-libraries as Computer Based Test (CBT) centres for Joint Admission Matriculation Board (JAMB) examinations to generate funding.
4. The university authorities and library management of the universities should develop a keen interest and have a strategic plan for the automation of library operations. Items such as relevant hardware, library software and source of funding should be contained in the strategic plan towards the implementation of automation.
5. The university authorities and library management of the universities in South West, Nigeria should ensure that only competent staff is employed and staff without relevant experience should be mandated to go for further training.

Contribution to knowledge

This research contributed to knowledge in the following areas:



1. This study will contribute to knowledge by providing information on how the adoption of automation in university library operations facilitates the emergence of new structures in university libraries, increase staff productivity in relation to work output and enhance communication through the use of automation tools.
2. The study will also serve as a guide to university authorities and library management that are ready to imbibe automation on what area to be emphasised for effective library operations.

REFERENCES

- Adedoyin, S.O., Ajiboye, B.A., Adigun, A.I. & Tomomowo-Adeyinka, S. (2016). Division of labour and Job Specialization as Catalysts for Better Job Performance among the Staff of a Nigerian University Library. *Information and Knowledge Management*.3 (12), 81. Available online at: www.iiste.org.
- Adegbore, A. M. (2010). Automation in Two Nigerian University Libraries.*Library Philosophy and Practice.(e-journal)*.
<http://www.webpages.uidaho.edu/~mbolin/adegbore.htm>
- Bello, S. (2013). Automation and Digitization of Primary/Post Primary School Libraries as an Impetus for Effective Teaching and Learning: *Journal of Educational and Social Research*3(10). MCSER Publishing, Rome-Italy. Doi:10.5901/jesr.2013.v3n10p79.
- Boateng. H. (2014). The Pros and Cons of Library Automation in a Resource Challenged Environment: A Case Study of KNUST Library. *Library Philosophy and Practice e-journal*).Paper 1061.
- Dhanavandan, S., Esmail, S.M & Mani, V. (2008). A study of the use of information and communication technology tools for librarians. *Library Philosophy and Practice e-journal*). <http://digitalcommons.unl.edu/libphilprac/200>.
- Gbadamosi, B.O. (2012) Emerging challenges to effective library automation and an e-library: The Case of Emmanuel Alayande College of Education, Oyo, Nigeria. *Library Philosophy and Practice*, 1-11. <http://digitalcommons.unl.edu/libphilprac/807>
- Herath, S.K. (2009). A framework for management control research. *Journal of Management Development* 26 (9), 895-915. Doi: 1108/0262171071081936
- Kanfer, R. and Ackerman, P. L. (2005) 'Work competence: A Person-Oriented Perspective', in A.J. Elliot and C. S. Dweck (eds), *Handbook of Competence and Motivation*. Guilford Publications, pp. 336-353.
- Kelly, B. (2008). "Library 2.0 and information literacy: the tools". In Godwin, P. and Parker, J.(Eds), *Literacy Meets Library 2.0*, Facet Publishing, London.
- Manjunatha, K., Rekha D. P. &Saji, K. M. (2007). Impact of Technology on Quality of Service. In *Technical and Management Libraries in Karnataka*. Sponsored by Dept. of Scientific and Industrial Research, Govt. of India, New Delhi, Under Technology Information Facilitation Programme Scheme.
- Okon, H.I (2009). Effective communication and smooth administration of academic libraries in the 21st Century: A new paradigm in Nigeria. *Library Philosophy Practice*. 8(1), 54-62.
- Owoeye, P.O.& Dahunsi, F.T. (2014). The Role of Communication in effective service deliver in libraries and information centres: A case study of Ekiti State University library.



- Pfano, M. & Andrisha, B. (2016). Problems and Perspectives in Management, *Information Management Journal*. (14) 2, 47-58. *Academic Journals (e-journal)* 6 (5), 75-87. DOI:10.5897/IJLIS204.0434
- Ramey, Karehka, (2013). Use Of Communication Technology for Organizational Communication. Retrieved from <http://www.useoftechnology.com/communication-technology-organizational-communication/>
- Sablynski, C.J. (2012). "Foundation of Organizational Structure," <http://www.csus.edu/indiv/s/sablynskic/ch.14.htm>
- Sarmento, R. & Beale, J. (2007). Determinants of performance amongst shop-floor employees: A preliminary investigation. *Management Research News* 30 (12): 915-927. DOI: 10.1108/01409170710833349
- Schweiren, C. (2008). Organizational structure and culture. Retrieved from www.christianschwieren.de/orgbe/StructureandCulture.pdf
- Sindhav. R. (2014). Library automation in academic libraries: Need and Purpose *International Research Journal of Mathematics, Engineering and IT*. 1(2)
- Tubbs. S.L., & Moss, S. (2008). *Human communication: Principles and Context* 10th ed. Boston: McGraw Hill Company.
- Underdown, R. (2012) "Organizational Structures," http://dept.lamar.edu/industrial/underdown/org_a_na/org/org_structure-George.html
- Ugwuanyi, R.N.C & Ifidon, E.I. (2013). Effective communication in academic libraries: An imperative for knowledge delivery. *International Journal of Library and Information Science*. Vol. 5(7), 203-207, DOI: 10.5897/IJLIS11.066.