AUTOMATION OF ACQUISITION, CATALOGUING AND CLASSIFICATION AND STAFF JOB PERFORMANCE IN UNIVERSITY LIBRARIES IN SOUTHEAST, NIGERIA

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Abstract

Purpose: The main purpose of this study was to examine library automation and staff job performance in university libraries in South-East, Nigeria.

Research Design: The researchers employed a correlational research design. Two research questions and two hypotheses guided the study. The population of study is 116professional and paraprofessional library staff which was also used as sample. A rating scale titled; Library Automation and Job Performance of Library Staff was used to collect data. Analysis was done using Pearson Product Moment Correlation Coefficient while z-test was used to test the hypotheses at 0.05 level of significance

Findings: The coefficient of correlation between automated acquisition and staff job performance is low but significant while the coefficient of correlation between automated cataloguing/classification and staff job performance is high and significant in university libraries in south-east, Nigeria.

Originality/Value: Automating library operations will help to enhance librarians and or information managers' effectiveness in performing their routine task thereby getting them fulfilled with the resultant high quality output. It will also contribute to the advancement of the body of knowledge concerning library automation, how to use automated libraries efficiently, its benefits, impacts and general outcome in academics.

Implications: Since the relationship between automated acquisition and staff job performance is low but significant, labour intensive task involving placing of order, checking and claiming of ordered and received information resources among others will be easy to articulate if automation is acquired. Similarly, the improvement of staff job performance as a result of automating cataloguing tasks means that the bibliographic information of library resources will be correctly captured, access to the library materials will be easier and faster while, the control of clerical and technical processes involved, the exchange and use of cataloguing data locally, nationally and globally will also be promoted.

Key Words: Library Automation, Acquisition, Cataloguing and Classification, South-East, Nigeria &Job Performance

Paper Type: Empirical

Introduction

All libraries attached to higher education institutions such as universities, polytechnics, colleges of agriculture, colleges of education, and other post secondary institutions are generally called academic libraries. However, each of these libraries takes its name from the type of institution where it operates, hence the term university library, polytechnic library and college libraries. In Nigeria today, institutions of higher learning are established with libraries which function not only as the information resource center but also provides services to support teaching, learning and research needs of the academic community comprising of students, staff, researchers and any other clientele of their institutions. The activities or jobs that lead to the actualization of these goals are done at varying degrees among the different types of the academic libraries.

The term job has been and will continue to be part and parcel of man's existence in the

physical world. It is a purposive human activity and a means by which societal and individual needs are met. Job is not just about employment; rather it goes further to mean an activity that produces something of value to and for the society. In the library, jobs include; cataloguing and classification, shelving, organization, indexing, reference services, readers services, among others. Efforts are often put in place to ensure effective performance of these jobs or tasks by the library staff.

Performance is the completion of a job; taking action in accordance with requirements. Campbell cited in Igbokwe (2011) defines it as behaviour, while Armstrong cited in Amadi (2014) states that performance means both behaviours and results in that, behaviour emanates from the performer and transforms performance from abstraction to action. It is also the sum total of activities of an employee in his work place. With regards to the university libraries, it is the day-to-day completion of the vital and routine tasks or jobs of the library staff hence the term job performance.

Job performance is therefore very vital in any organization, whether it is an institution or other corporate organizations. It is the total work related activities expected of an employee and how well those activities are executed. Handoko and Amalia (2019) citing Liao, Lu, Huang and Chiang define job performance as the, standard for advancements, redundancy, rewards, punishments, reviews and salary changes. It also satisfies the needs for employees to realize themselves. Similarly, Lee and Wu cited in Inuwal Mashi and Salisu (2017) define job performance as "workers' total performance in meeting the anticipated worth and achievement of tasks under the procedure and time requirements of the organization".

In the library, just like every other department or unit, for maximum visibility of its role by the instituting body and the utilization of its resources by the user community, job performance of the library staff is paramount. It is the overall discrete behavioural episodes (jobs) that the library staff carries out manually or electronically over a standard period of time.

The act of performing jobs electronically is the genesis of the term automation.

Automation is the use of electronic machines to perform tasks and reduce human intervention to a minimum thus sparing human energy and time. Casor (2014) sees it as a process of using the machineries for easy working and saving the human power and time. In most cases, especially in the business world, the word automation and computer are often used synonymously. This is simply because of the fact that computer is assumed to be a universal machine that can be used to automate almost every function in different organizations. Thus, it can be inferred that the modern usage of the word automation implies the predominant use of computers and other modern technologies in performing tasks in organisations, of which the library is a part.

Library automation is the system of using computer or electronic devices to perform originally traditional library activities. According to UNESCO (2015), it refers to the application of information and communications technology (ICT) involving computer software and hardware to library operations and services that otherwise require a lot of paper work and staff time. It can also be defined as the use of automatic and semi-automatic data processing devices (computers) to carry out traditional library activities such as acquisition, circulation, cataloguing, reference and serials, reference, WebPac, indexing and abstracting (Satyanarayana, 2013; UNESCO, 2015; Sadaf, 2015). Its adoption 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. For the purpose of this study, emphasis is laid on automated acquisition, cataloguing and classification.

Acquisition is the act of making information resources available in the library using different processes like direct purchase, gift and exchange, bequeath, inter-library loan, legal

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deposit, subscription among others. These processes are performed manually by librarians and require highly accurate records for purchasing purposes. With the evolution of ICT, acquisition is today computerized such that having knowledge of existing information resources as well as making them available at the quickest possible time is no longer a challenge to libraries and librarians. Cataloguing and classification on the other hand is the description of library resources by highlighting their bibliographic features (such as; author, title, publishers, year of publication and subjects) inside a catalogue card for ease of organization, arrangement, access and retrieval, using cataloguing and classification tools which forms the foundation of any bibliographic record and grouping. Automation of cataloguing and classification jobs is therefore the act of using machines to describe and analyse, items or documents in its subject content, a wide variety of library products in a computerized digital format. It is an important function of any library and its computerization must be one of the ultimate aims of the automation programme. This could be the basis why Amekuedee (2005) argues that the cataloguing operation is the first library housekeeping operations to be automated when a library decides to automate.

Statement of the Problem

The introduction of automation and bibliographic utilities allows acquisition and cataloguing librarians to move away from clerical work and learn new skills in database searching. However, in Nigeria, it has been observed that some university libraries have automated their functions and services; others have partly automated while so many others have not. Despite their varying stages of automation, there are evidences that job performance of the library staff has suffered poor quality and experienced delayed service which in the past affected a great deal of users patronage of the library resources. The question then is: what could be the reason for poor performance? Could it be as a result of the type of automation strategies employed, the quality of the automation products, or the level of staff compliance with the automation packages? It is in the light of this that the researchers sets out to investigate the automation of acquisition, cataloguing and classification jobs in university libraries and its relationship with staff job performance in the academic libraries of the South-East, Nigeria

Research Questions

In line with the purposes of the study, the following research questions were posed to also guide the study:

1. What is the relationship between automated acquisition and staff job performance?

2. What is the relationship between automated cataloguing/classification and staff job performance?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

Ho$_1$: The coefficient of correlation between automated acquisition and library staff job performance is not significant.

Ho$_2$: The coefficient of correlation between automated cataloguing/classification and library staff job performance is not significant.

Literature Review

Automated Acquisition and Job Performance

The core of the library is the collection. Its pivotal place is enshrined in the basic mandate of the library to stock information materials to meet the needs of users. Thus, the collection, composed of the information resources, constitutes the basic instrument of service delivery in the library and the process of getting the information materials is referred to as acquisition. Automation of acquisition is a process of redefining the routine task of managing the collection development and acquisition process in the library for effective job performance. The system involves automating the acquisition process, ordering, receiving and claiming materials from suppliers and returns and cancellations of materials. It usually responds to regular receipt, non-receipt, out-of-print, documents with wrong billing, unwanted documents with right billing and so on. Designing an automated acquisitions system

is usually difficult since it is expected to perform certain managerial functions in addition to certain clerical functions (such as, pre-order searching to avoid duplicate orders, creating purchase order, exchanges, etc.) (Sz, Saleem & Batcha, 2013: 22). Other managerial functions he added include:

request for invoice, if necessary, sending order letters along with cheques/drafts if necessary, receiving materials, completion of accession list and cataloguing, announcement of recently received documents, claim and / or cancelation notice, providing information on outstanding orders and sometimes on work-in-process (that is, book received but not yet catalogued) as well as printing and maintaining book fund accounts and reports.

According to Rai and Kumar (2011), library automation is rapidly becoming an essential tool in support of effective customer services, stock management and management of services offered by libraries all geared towards improving job performance and the satisfaction of the clientele. Through automation, acquisition can be done online if system is linked to an external network. It also allows for an improvement in the variety, amount and quality of materials that are available in the library's collection. In the same vein automation can also help in weeding out old, outdated and irrelevant books and materials from the collection, by this library's collection become more streamlined and easier to find the right item.

In automated acquisition, ICTs can be used in the acquisition of information resources in academic libraries. Akanwa and Udo-Anyanwu (2017) opined that the prospects of the use of ICT in collection development in libraries are very high in view of its potentials. On this premise, Thapa and Sahoo (2007) and Alaeze (2007) in their respective empirical studies found that a positive significant relationship exists between automated acquisition and staff job performance. In developing the library's collections, ICT can be used in various ways, these include: online search, ordering and subscription, resource sharing, creation of database and avoidance of repetition. No wonderNyambeki's (2016) concluded in his

study that there was a strong positive relationship between inter-library co-operation and library automation.

Automated Cataloguing/Classification and Job Performance

Cataloguing/classification is an intellectual process that needs rationale consideration and decision making in establishing the class number of an information material and ascertaining the subject headings. The procedure was previously a manual course of action using the Anglo American Cataloguing Rules (AACR 2) and classification schemes by different libraries to process their information materials. This whole process is labour intensive which makes many academic libraries to have piles of unfinished jobs which impede the flow of information material to the reader's services unit namely, circulation and reference section. This process is not only rigorous but also time consuming, hence the embracing of Cataloguing in Publication (CIP), a descriptive cataloguing information done by Library of Congress. With time, automation came into being and transformed the manual cataloguing of Machine Readable Catalogue (MARC) tapes and on books as the cataloguing in publication.

Automated cataloguing is a process by which libraries convert traditional creation of bibliographical information and card catalogue into MARC standard format for most of the library activities and services. Creation, storage, retrieval and management of bibliographic records and indexes can also be automated. Its catalogue contains same bibliographic information of a traditional card catalogue, but in a computerized digital format. It ensures that the bibliographic information of books and other library materials are stored as electronic format on a library database which can be shared with other computers of other libraries. Using this computer, library users can also search and retrieve bibliographic information of those collections.

Some of the academic libraries have tried to automate all their operations through the use of computer and other machines and this has increased all of the library activities dramatically. Automation has helped in saving

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the time of library users as well as the time, effort, money and labor of the library personnel. Empirically, Olagoke and Kolawole (2019: 5) noted that:

> "automated cataloguing helps the librarians to do their resource-sharing among libraries (Union Catalogues) job because its standards, such as MARC (Machine Readable Cataloging), allow for quicker cataloguing of library items and also makes the sharing of materials among libraries much easier and much more affordable. It enables consortium formulation and makes library collaboration very easy."

Odunola, Oyewumi, Ogunmodede, Oyetola and Daniel's (2019) in their study found that automated cataloguing system made cataloguing of information materials in the libraries faster. Similarly, Ajibero cited in Arinola, Adigun, Oladeji and Adekunjo (2012) noted that as a result of the impact of ICT on technical services, the roles of cataloguers have completely changed and automated cataloging standards, such as MARC (Machine Readable Cataloging) has allowed for quicker and efficient cataloging of library items (Ashikuzzaman, (2014).

Methods

This researchers employed a correlational research design. Two research questions and two hypotheses guided the study. The population of study is 116 professional and paraprofessional library staff drawn from 3 federal and 2 state owned university libraries in South-East zone The entire population was also used as sample. Therefore, census sampling method was used A rating scale titled; Library Automation and Job Performance of Library Staff was used to collect data. Cronbach alpha statistics was used to determine the reliability coefficient 0.86 and 0.79 for each of the clusters. Analysis was done using Pearson Product Moment Correlation Coefficient while z-test was used to test the hypotheses at 0.05 level of significance

Results

Research Question One: What is the relationship between automated acquisition and staff job performance?

Table 1: The Coefficient of Correlation (r) and Coefficient of Determination (r^2) between Automated Acquisition and Job Performance

Variable	$\overline{X}$	Std	n	r	r^2	Decision
JP	133.28	26.98	98	0.268	0.072	low relationship
AA	19.94	9.82				

Key: JP= Job Performance, **AA** = Automated Acquisition, X = Mean, **Std =** Standard Deviation, **n** – number of respondents,

Table 1 shows the coefficient of correlation between automated acquisition and job performance of the library staff. Also shown in this Table 1 are the coefficient of determination, the means and standard deviations of the two variables (job performance and automated acquisition). The Pearson correlation coefficient between job performance and automated acquisition is 0.268. This coefficient is within the range 0.21 – 0.40, indicating low extent of relationship. This shows that there is a low extent of relationship between job performance and automated acquisition. Also, the coefficient of determination is 0.072, which indicates that 7.20% of the variations in librarians' job performance are explained by automated acquisition. The mean rating score and standard deviation on job performance of librarians are 133.28 and 26.98 respectively. Also, the mean rating score and standard deviation on automated acquisition are 19.94 and 9.82 respectively.

Hypothesis One: The coefficient of correlation between automated acquisition and staff job performance is not significant.

Table 2{ The Calculated z-value (z_{Cal}) and Critical z-value (z_{Crit}), $p - value$ and Decision for the Test of Significance of the Pearson Correlation Coefficient

n	r	z_{Cal}	df	z_{Crit}	$p - value$	$Decision$
98	0.268	2.726	96	1.960	0.004	H_{01} is rejected

Presented in Table 2 are the calculated z-value, the critical z-value and p-value for the test of the significance of the Pearson correlation coefficient (r). Also presented in the table are the sample size, degree of freedom and decision. The calculated z-value is 2.726, the critical z-value is 1.960, while the p-value is 0.004. When compared the calculated z-value is greater than the critical z-value, while the p-value is less than the significance level of 0.05. Based on these results the researchers fail to accept null hypothesis one and accepted the alternative hypothesis. Hence, the coefficient of correlation between automated acquisition and staff job performance is significant. That is, there is significant relationship between automated acquisition and staff job performance. The relationship was found to be positive, though low but significant.

Research Question Two: What is the relationship between automated cataloguing/classification and staff job performance?

Table 3: The Coefficient of Correlation (r), Coefficient of Determination (r^2) between Automated Cataloguing and Job Performance

Variable	$\bar{X}$	Std	n	r	r^2	Decision
JP	133.28	26.98	98	0.658	0.433	High Relationship
AC	25.89	8.24				

Key: JP = Job Performance, **AC** = Automated Cataloguing, X = Mean, **Std =** Standard Deviation, **n** – number of respondents,

Presented in Table 3 are the coefficients of correlation and determination between automated cataloguing and job performance of librarians. Also presented in the table are the mean rating scores on job performance and automated cataloguing and the standard deviations. The results in the table show that the Pearson coefficient of correlation is 0.658. This coefficient is within the range 0.61 − 0.80 which indicates high extent of relationship. This shows that there is high extent of relationship between automated cataloguing and librarians' job performance. Also, the coefficient of determination is 0.433, showing that 43.30% of the variations in librarians' job performance are explained by automated cataloguing. On the other hand, the mean rating score of the respondents on automated cataloguing is 25.89, while the standard deviation is 8.24.

Hypothesis Two: The coefficient of correlation between automated cataloguing/classification and staff job performance is not significant.

Table 4: The Calculated z-value (z_{Cal}), Critical z-value (z_{Crit}), $p - value$ and Decision for the Test of Significance of Correlation Coefficient

n	z_{Cal}	r	df	z_{Crit}	$p - value$	$Decision$
98	8.562	0.658	96	1.960	0.000	H_{02} is rejected

Presented in Table 4 is the calculated z-value for the test of the significance of the Pearson correlation coefficient. Also presented in the table are the critical z-value, the degree of freedom and the p-value. The calculated z-value is 8.562, the critical z-value is 1.960, the p-value is 0.000. The calculated z-value is greater than the critical z-value, also the p-value is less than the significance level of 0.05 at 96 degree of freedom. Based on this fact we fail to accept the null hypothesis two and accept its alternative hypothesis. Therefore, the coefficient of correlation between automated

cataloguing/classification and staff job performance is significant.

Summary of Findings

The major findings of this study as observed from the results of data analyses hold that:

1. The coefficient of correlation between automated acquisition and staff job performance is low but significant.

2. The coefficient of correlation between automated cataloguing/classification and staff job performance is high and significant.

Discussion of Findings

The findings of the study revealed that the relationship between automated acquisition and staff job performance was found to be positive, though low but significant. That is, there is significant relationship between automated acquisition and staff job performance. The relationship was found to be positive, indicating that the two variables increases or decreases in the same direction. That is as automated acquisition increases, staff job performance also increases by the same unit. Simply stated, improving automated acquisition in the libraries will equally improve staff job performance. This relationship however, was found to be low, though test of hypothesis shows that the relationship is significant. The coefficient of determination indicates increase in staff job performance with the use of automated acquisition in carrying out that job function. This finding on the relationship between automated acquisition and staff job performance is in line with the findings of Thapa and Sahoo (2007) and Alaeze (2007). These researchers found that a positive significant relationship exists between automated acquisition and staff job performance. It is also in tandem with Nyambeki's (2016) conclusion that there was a strong positive relationship between inter-library co-operation and library automation.

The findings of the study revealed that there is high relationship between automated cataloguing and library staff' job performance. That the relationship is positive shows that as automated cataloguing increases staff job

performance also increases by the same unit. That is to say that improving the use of automated cataloguing/classification in the libraries will also improve staff job performance. The coefficient of correlation between automated cataloguing/classification and staff job performance is significant. That is to say that there is a significant relationship between automated cataloguing/classification and staff job performance. This result is similar to Odunola, Oyewumi, Ogunmodede, Oyetola and Daniel's (2019) finding that automated cataloguing system made cataloguing of information materials in the libraries faster. It also tallies with Ajibero cited in Arinola, Adigun, Oladeji and Adekunjo (2012) who noted that as a result of the impact of ICT on technical services, the roles of cataloguers have completely changed. The findings therefore showed that there is significant high extent of relationship between automated cataloguing and staff job performance. These findings are in consonant with Ashikuzzaman, (2014) who averred that automated cataloging standards, such as MARC (Machine Readable Cataloging), allow for quicker and efficient cataloging of library items.

Conclusion

Conclusively, it has been discovered that automation of library functions will help in the provision of effective service in libraries. Hence, every effort must be made by university libraries to automate their library functions and services if they are to remain relevant in this Information and Communication Technology era. The automation of these library functions will not only improve the job performance of library staff but will also help in achieving the primary objective of the university library which is to serve as an information dissemination centre of the university.

Recommendations

Based on the findings of the study, the researchers made the recommendations below:

1. The library management should carry out proper feasibility study so as to bring in standard automation packages that will ensure quantitative and qualitative job performance since the

relationship between automated acquisition and job performance was found to be low.

2. The management should also strive to equip the cataloguing/classification unit with standard and up-to-date Information and Communication Technology (ICT) gadgets needed for the task performance while the staff are to be trained and retrained on their use for a much more better performance.

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