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Library Crimes among Users of Library Resources in University Libraries, Nigeria

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

This research is aimed at Library Crimes among Users of Library Resources in University Libraries in Nigeria. Descriptive survey and simple linear and multiple correlational research designs were adopted. A 4-point rating scale was used to collect data from a sample size of 394 drawn from 33,159 population. The sample size was determined using Krecjie and Morgan's table for determining sample size while proportionate sampling technique was applied to determine the individual student respondents of each of the schools. The Universities studied are Nnamdi Azikiwe University Awka, Delta State University, Abraka, Dennis Osadebay University, Asaba, Delta State University of Science and Technology, Ozor, Federal University of Technology, Owerri Imo State University, Owerri, Madonna University, Okija, Paul University Awka, Chukwuemeka Odiumegwu Ojukwu University, Uli. Data collected were analyzed using descriptive and inferential statistics to obtain means and coefficient of correlation for answering research. Findings show among others that, the crime practices in university libraries studied is not significantly carried out above average rating; the measure of patrons' utilization of the library resources in universities studied is not significantly above average rating; and there is a very high

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and significant relationship among theft, mutilation, vandalism, mis-shelving of books and staff assault on one hand and the patrons' use of the library resources. The researcher made some recommendations on the study.

Keywords: Library crimes; users; library resources; university libraries mutilation; vandalism.

1. INTRODUCTION

"The university library is meant to serve the undergraduates, postgraduates, lecturers and other members of the university community. It provides for the promotion of the parent institutions' vision, mission and strategic statements which are selected as a guide for meeting the core functions of teaching, learning, research and providing community service which form the foundation on which the role of the university library is based hence, its effort to make available the right resources for curricular and extra-curricular activities" (Sowmyva. 2014). Bassey [1] posit that supporting research and learning activities are the major objectives of university libraries. Their ability to fulfill their mission is often hampered by the reckless crimes perpetrated by the patrons.

Crime is a punishable human conduct that is totally against the law. Opp [2] defines crime as an illegal act that is worthy of blame, condemned the public and sanctioned by state. According to Isiaka and Okaphor [3] it is any act that interferes with private rights and has harmful effect on the public. Although a clear-cut way thought of crime is to see it from tolerant or lawful point of view, it is a fundamentally argued concept with no universally acceptable definition. There are different classifications of crime, namely: felonies. misdemeanors, felonvmisdemeanors, and infractions. Specifically, they include among others, abduction, robbery, blackmail, arson, theft, property damage. assault, bribery, reckless discharge of fire arms, riot etc. According to Sowmyya (2014) murder, robbery, burglary, rape, drunken driving, child neglect and failure to pay taxes etc. are types of crime. Each society, organization, establishment and even institution see the concept from different perspective hence the term library crime.

In the library environment simple offenses otherwise referred to as infraction vis-a-vis insults, arson, mutilation, vandalism, treason, defacing of information material and users personal belongings are predominant crimes. Nnam, Okogwu and Adinde [4] identified mutilation, burglary, arson and theft as common

forms of crimes committed in the library. Similarly, Ogbonyomi [5] categorically asserts that "in most Nigerian libraries, criminal activities are not limited to library information materials alone but theft of personal items of users, such as handbags, purses, keys and notebooks abound".

Since the university library as a type of academic library that keeps track of different formats of valuable, expensive and relevant materials for users of diverse age groups, political and backgrounds socioeconomic and cultural affiliations, it stands at risk to all forms of crime. Such crimes, like stealing, mutilation, vandalism, arson, and hiding of Library resources by users often pose challenges to the existence of the collection and their possible utilization. For the purpose of the study, emphasis will be laid on such crimes like theft, mutilation, vandalism, hiding of library resources and staff insult.

Theft involves removal of library resources from the library and user vicinity without due permission and consent. It occurs when according to Ohayagha [6] a person dishonestly confiscates property belonging to another with the intention of permanently depriving the owner of it. It can also be defined as the unauthorized taking of library materials with the intent to permanently depriving others from using it or having access to the materials. Fasaeand Adedokun [7] opine that "theft of library material is when information material of any form istaken out of the library in an unauthorized manner by the library users. The major reasons or causes oftheft in the library are as a result of high cost and insufficient copies of books or in cases where libraries object to loan services in the library".

Mutilation leads to the removal of pages of the information materials. It is a way of abusing information materials of the library [7], and the act of underlining and highlighting text in library books, tearing and or removing pages of books and annotating in books margins, tampering with the subject content of library collection thereby making it unusable to other users [6]. Akor [8] defines "mutilation as the act of destroying or removal of an essential part of library materials

so as to render it useless. It could also be as a result of among others, bending of corner of paper or inserting pencil or biro into pages. Opening of books back to back and tearing of relevant pages are also forms of mutilation".

Vandalism as it relates to the library is global and a historical issue. It is an intentional or deliberate act of destroying or damaging public property (library resources) through breaking of windows, spray painting pages, and destroying of computer systems by connecting virus infected software's. Omoike and Ikegun [9] citing Gadekar and Golwal contends that any act which defiles the sanctity, decorum, discipline, and beauty of a library is called vandalism.

Furthermore, mis-shelving or hiding of Library resources is also a deliberate and mischievous move by users to remove library resources from the actual position on the shelf to locations that will make it difficult or impossible for others to locate. Although these acts could be attributed to juvenile delinquency when students are involved, they hamper not only the collection development processes of the library but also, deprives the users from accessing and using quality and complete library resources. Omotayo and Ajayi [10] reported that mis-shelving constitutes a special crime carried out by students who deliberately hide books in places you would not expect to find them.

In an academic library environment, resources utilization is extremely important in the visibility of the objectives of the library to the parent body. Although, the extent of use differs and sometimes depends on the safety assurance given to the users. The use is dependent on the strength of the library collection and the security of the users and staff while in the library. Since comprehensive use of the library is not feasible as a result of demeanor that are witnessed in the library which has also reduced the collection strength, willingness of the staff to render help to individual users, visibility of libraries and also prompted the doubt by some university management concerning the need for the library, academic libraries must determine a focus to ensure the utilization of the resources. It is in relation to the above assertion that the researcher is carrying out this study with a view to ascertaining the relationship existing between each of the selected crimes and the users of the library resources in the university libraries studied.

1.1 Purpose of the Study

- 1. Find out the measure of crimes of the university libraries studied;
- 2. To know measure of users utilization of the university library resources; and
- 3. Identify relationship between theft and users in use of the library resources

1.2 Research Questions of the Study

- What are the measure of crimes of the university libraries studied;
- What are the measure of users utilization of the university library resources; and
- 3. Find out the relationship between theft and users in use of the library resources

2. LITERATURE REVIEW

The term crime, an anti-social act, is derived from the Latin word "crimen" meaning offence and also a wrong-doer. It could be legal or illegal. As illegal and punishable act crime, involves wrong practices that are harmful to self or third parties and violation of rules of administration or law of the state provided in criminal law. On the other hand, legal and unpunished crime is all that one does for self-defense. The different definitions of crime show the common features of crime as a harmful conduct that affects the public as a whole. Its act or conduct whether moral or immoral deserves punishment to be effected by the public authority.

"Crime against library collections, otherwise known as information resources, is on the increase in a number of Nigerian academic libraries. It is increasing in a spectacular and frightening rate in Nigerian university libraries" (Lawal, 2010). The University of North Carolina Greensbro [UNCG] (2021), stated that "library crime involves the intentional use, misuse or alteration of materials or resources so as to make items inaccessible to other users; such misuse include the procedures or other intentional misuse or destruction of educational materials". Egbuchu (2016) opined that "library crimes range from negative user attitude to attacks on library and information resources, library equipment, facilities and assault on library staff. The variance in the extent, nature and rate of their occurrence in academic libraries notwithstanding, they have deprived many users from fully satisfying their information needs which ultimately lead to users' dissatisfaction with library collections and subsequent low patronage".

Many factors bring about low patronage of library resources. No wonder Aniebo [11], reiterated that "there are certain user malpractices which hinder the provision of efficient library services and use of the library by patrons. These acts and many others like; theft of library materials/users property, criminal damage, assault on staff and other patrons, fraud, impersonation, collusion with library personnel who may be unduly influenced, entry with dangerous weapons, arson, graffiti, minor vandalism, utility interruption, nonreturn of borrowed items etc. constitute library crimes/breaches/security challenge"s. According to Jackson cited in Akor [8] "incidents of theft, non-return of materials and mutilation of library stock are unwanted acts that are on the increase and need serious tackle in academic libraries in order to protect library resources". The study of Jimoh and Utor as cited in Samuel (2018) also enumerated some deviant behaviours (criminal acts) that affect library services and use or resources as defacing library materials, stealing, keeping of borrowed books beyond the due date excessive borrowing, eating and sleeping in the library, mis-shelving of books and throwing of books through windows among others.

"The crimes which are committed by some users of the libraries have deprived many others from fully achieving their information needs. Their effects are very insidious and have caused a good number of students who used university libraries everywhere inconvenience their frustration theyencounter in various researches in the library" [12]. Among the major crimes are theft, mutilation and vandalism of the library resources, "Book theft and mutilation in particular are antisocial tendencies adversely prevent students and other library users are prevented from exploiting library resources to their satisfaction since they can neither find these stolen books nor important part(s) of it" (Ogunyade cited in Okogwu & Nnam, [4]). Oyedum Sanni and Udoakang [13] asserted that "since libraries are the best places where information resources are acquired, organized, preserved and disseminated to users, vandalism, mutilation, defacement, theft, arson, etc are problems regularly encountered in most of them".

The acts of stealing and defacement, destruction, damages and disaster, over borrowing or delinquent borrowing and purposefully displacing the arrangement of materials are no doubt

formidable obstacles to information access and user satisfaction with their use of the library resources [14]. Oyesiku, Buraimo and Olusanya cited in Akinola [15] maintain that outrageous behaviors such as theft and mutilation, hiding librarymaterials, refusal to return overdue borrowed materials, drinking and eating in the library,among others have become common occurrences in academic library. Similarly, Enyi and Tsegba [16] noted activities like; vandalism, mutilation, defacement, theft, mis-shelving of books, verbal and physical abuse, harassment and other criminal activities as some of the challenges regularly encountered resources found in the library. It is therefore vital that today's libraries be positioned to be able to confront these challenges in an objective, analytical and professional manner without displeasing the library users.

More so, "scandalous behaviour such as theft and mutilation, hiding library materials, refusal to return overdue borrowed materials, drinking and eating in the library, among others have become a common occurrence in academic library, that will lead to serious drought of information materials in the library if it is not checked" [17]. They according to Edoka (2010) lead to among others, decrease in the number of collections, deterioration of the materials as a result of mishandling and misplacement of information materials, deny readers access to the resources. Similarly, Achigbue, Ajegbomogun, Adeyoyin [18], noted a low use of library resources in university libraries in Ogun State, Nigeria, which their study attributed to students' deviant behaviours. In the same vein, Eyo cited in Abiove and Rasaki [19] reported that deviant behaviors such as book mutilation and misshelving of books between shelves in academic libraries was found to be high and had affected lending services and book use in academic libraries in Cross River State, Nigeria. Akor [8] opined that the commodity the libraries promote: books and other information materials are valuable and expensive but is likely target for criminal activities.

"A depletion of available materials means a reduction in how the library can serve and satisfy the needs of the patrons. It is therefore crucial to preserve available materials and resources from theft and mutilation. Vandalism, mutilation, violence, arson and other criminal activities needed to be properly addressed, measured and the level of their existence in the libraries needed to be understood by the librarians and

information scientists of today. Some of these information resources are not only rare to come by but they are also expensive and fragile in nature. These days libraries be it academic. public, school, national and other types of libraries spend a lot of money to install considerable security devices in order to check these criminal activities. Ensuring effective use, longevity, and accessibility makes an effective program of collection security necessarv because the level of the crime committed in the library depends on the wealth of information resources it acquired and the services it renders" [8].

Therefore, protecting library resources is crucial. The security must be carried out as seamlessly as possible without obstructing the library's goal of creating a welcoming environment, which is equally crucial. Instances of theft, mutilation, and abuse of library resources are prohibited in libraries. Their causes are the same, yet they have different characteristics. The crimes to be considered in this review include; theft, mutilation, vandalism, hiding of Library resources and staff insult.

3. METHODOLOGY

In this study, the researcher adopted a descriptive survey and a simple and multiple linear correlation designs involving mean, standard deviation and Pearson Product Moment Correlation approach. Survey design involves procedures in quantitative research in which investigators administer an instrument to a sample or to the entire population of people to describe the attitudes, opinions, behaviours, or characteristics of the population at a particular point in time (Aina & Ajiferuke, 2002).

A correlation study involves the establishment of relationship between some variables. Precisely, in this study, the researcher established the relationship between some library crimes and patrons' use of library resources. The Universities studied are Nnamdi Azikiwe, University Awka, Delta State University, Abraka, Dennis Osadebay University, Asaba, Delta State University of Science and Technology, Ozoro, Federal University of Technology, Owerri Imo State University, Owerri, Madonna University, Okija, Paul University Awka, Chukwuemeka Odiumegwu Ojukwu University, Uli, and. The librarians in the university libraries studied are 160 while the registered student population is 32,999. A sample of 394 respondents was drawn from the population of the study using Krecjie

and Morgan's (1970). The Table 1 states that for a population of 30,000 - 39,999, a sample of 394 should be used. The study adopted two four point modified Likert-type rating scales as the instruments for data collection. Two sets of instrument were developed for the study. The first instrument titled Students' Utilization of Library Resources Scale (SULRS) comprising, 25 items was used to elicit information from the student's on the information resources utilized the second instrument titled Crime Practices in University Libraries Scale (CPFULS) was used to determine the crime issues of the subject matter. In the first instance, data collected were analyzed to obtain the means and the standard deviations of the variables for answering research questions 1 and 2. In the second instance, Pearson "r statistic was used to answer the research questions 3

3.1 Analysis Data and Discussion of Findings

Research Question 1: What is the measure of crimes in the university libraries studied?

Table 1 shows mean scores on the measure of crimes in the federal university libraries in southsouth zone of Nigeria studied. With regard to the cluster criterion mean, the result indicated that majority agreed to theft while others, mutilation, vandalism, mis-shelving of books and staff assault were considered disagree since the mean scores were below the criterion mean of 15. The values of standard deviations compared to the various values of the means are small, which indicates that each rating scores homogeneous through skewed. The result here is that crimes in the university libraries Nigeria studied.

Research Question 2: What is the measure of users' utilization of the resources in the university libraries in studied?

Table 2 shows mean scores on the measure of patrons' utilization of the resources in the university libraries. With regard to the cluster criterion mean, the result indicated that the cluster was considered to be disagreed since the mean score of 54.67 is below the criterion mean of 62.5. The values of standard deviations compared to the various values of the means are small, which indicates that the rating score is homogeneous through skewed. The result here is that measure of patrons' utilization of the resources in the university libraries in studied is below average.

Table 1. Descriptive analysis on the measure of crimes in the university libraries in studied

| Variables | N | ΣX | $\overline{\mathbf{X}}$ | S | Remarks |
|-----------------------|-----|------|-------------------------|-------|----------|
| Theft | 387 | 6657 | 17.20 | 1.710 | Agree |
| Mutilation | 387 | 5011 | 12.95 | 2.798 | Disagree |
| Vandalism | 387 | 4988 | 12.89 | 3.189 | Disagree |
| Mis-shelving of books | 387 | 3856 | 9.96 | 3.123 | Disagree |
| Staff Assault | 387 | 3811 | 9.85 | 2.798 | Disagree |

Key: Sample Size (n), Summation ($\sum X$), Mean (\bar{X}), Standard Deviation (S), and Remarks

Table 2. Descriptive analysis on the measure of patrons' utilization of the resources in the university libraries

| Variable | N | ΣΧ | \overline{X} | S | Remarks |
|-------------|-----|-------|----------------|-------|----------|
| Utilization | 387 | 21158 | 54.67 | 6.715 | Disagree |

Key: Sample Size (n), Summation ($\sum X$), Mean (\bar{X}), Standard Deviation (S), and Remarks

Table 3. Summaries of correlation analysis on the relationship between theft and patrons' use of library resources in the in the university libraries

| V | N | Σ | R | r² | Remarks |
|-------------|-----|-------|------|------|--------------|
| Utilization | 387 | 21158 | | | Moderate |
| | | | 0.46 | 0.21 | Positive |
| Theft | 387 | 6657 | | | Relationship |

Key: Variables (V:X&Y), Sample Size (n), Summation (Σ), Sum of Squares (SS), Sum of Products (SP), Variance (S^2), Covariance (Cov.), Pearson r (r), and Remarks

Research Question 3: What is the coefficient of relationship between theft and patrons' use of library resources in the university libraries?

Table 3 shows the magnitude and direction of the coefficient of relationship between theft and patrons' use of library resources in the university libraries. From the Table 3 the coefficient of correlation between theft of resources and patrons use of library resources in the University is 0.46, while the coefficient of determination is 0.21. The coefficient of correlation is within the range 0.41 – 0.60 for moderate relationship. The coefficient of correlation is also positive. This shows that there is a moderate positive relationship between theft and patrons' use of library resources universities studied.

3.2 Discussion of Findings

The study revealed that crime practice in university libraries studied is not significantly carried out above average rating. This finding indicates that library crime is not carried out to average level and thus may not affect the utilization of its resources. This finding is in agreement with Achigbue, Ajegbomogun, Okorie and Adeyoyin's [18], study which concluded that students' deviant behaviour in the use of library resources in university libraries in Ogun State,

Nigeria, is very low. The findings of the study revealed that the measure of patrons' utilization of the library resources in universities studied is not significantly above average rating. This finding is in tandem with the study by Yebowaah and Plockey [20] where utilization of e-resources was found to below.

Finally, there is a moderate positive and significant relationship between theft and patrons' use of library resources in I universities. These findings agree with the findings of other researchers. For example, Adekunle, Adekunjo and Unuabor [21] in their study revealed that theft has affected the quality of research of students, caused students to desist from going to the library and have lead to frustration to a large extent. It is also in agreement with the result of the study by Ajala and Oyeboade (2008) where, analysis of responses showed vehement agreement that book theft is a serious problem facing the use of the collections in most of the academic libraries investigated.

4. CONCLUSION AND RECOMMENDA-TIONS

The researcher investigated the library crimes as correlates of patrons' use of library resources in university libraries in Nigeria. The specific

purpose of the study focused on the extent of crime by patrons of the university libraries; the coefficient of correlation between each of the crimes (theft, mutilation, vandalism, mis-shelving of books and staff assault) of university libraries and patrons' use of the library resources. Also examined is the coefficient of multiple relationship among theft, mutilation, vandalism, mis-shelving of books and staff assault and patrons' use of the library resources. Based on the findings recommendations were made as follows:

The management of the universities should ensure that qualified security personnel are deployed to the university libraries.

Since many of the library resources are not utilized by the patrons of the university libraries effort should be made by the authorities concerned to provide adequate, current and upto-date varieties of information resources and programmes that encourage the use of the resources.

The entrance and exit doors of the library should be guarded by library security personnel who must not relent in way to search the patrons while leaving the library.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

- 1. Bassey BA. User-satisfaction with services in three academic libraries in cross River State: a comparative study. Gateway Library Journal. 2006;9:21-29.
- 2. Opp K. Analytical criminology. Integrating explanations of crime and deviant behavior. London: Routledge; 2020.
- 3. Isiaka AA, Okaphor EF. Concept of crime in the administration of penal; 2018.
- Nnam MU, Okogwu FI, Adinde KU. Towards crime prevention and control in the Nigerian library system: Old and new perspectives, International Journal of Criminal Justice Sciences (IJCJS) Official Journal of the South Asian Society of Criminology and Victimology (SASCV). 2018;13(1):137–145.
 - DOI: 10.5281/zenodo.1403408 / IJCJS
- 5. Ogbonyomi AL. Security and crime prevention in academic libraries: A case

- study of the Kano state college of education, Kano, Nigeria. Library Philosophy and Practice; 2011.
- Available:http://www.webpages.uidaho.edu/~mbolin/ogbonyomi.htm.
- 6. Ohayagha SC. The use of technology in curbing library loses in research and innovation for sustainable future. Journal of Qualitative Education. 2014;10(1):1-6.
- Fasae JK, Adedokun FO. Abuse of information materials in academic libraries by students of tertiary institutions in Ekiti-State, Nigeria. Library Philosophy and Practice (e-journal). 2016;1426. Available:http://digitalcommons.unl.edu/lib philprac/1426
- 8. Akor PU. Security management for prevention of book thefts in university libraries: A case study of Benue State university library Nigeria. Library Philosophy and Practice. 2013;995. Available:http://digitalcommons.unl.edu/libphilprac/995.On 17/7/2021.
- Omoike AD, Ikegun DO. Use of ICT for securing libraries and Library resources against vandalism in university libraries in the era of globalinsecurity. InA. O. Issa, A. A. Salman, T. K. Omopupa andL. K. Mustapha. Management oflibrary and information centres in the era of global insecurity: A festschrift in honour of Prof. (Sir) Matthew Idowu Ajibero. Ilorin: Tim-Sal & Bim Publishing Ltd. 2020;103-117.
- Omotayo BO, Ajayi NA. An appraisal of security measures in Hezekiah Oluwasanmi Library, Obafemi Awolowo University, Ile–Ife, Nigerian Libraries. 2006;39:65–78.
- Aniebo MU. School librarianship: Theory and practice. Owerri: Divine Favour Digital Concept Publishers; 2017.
- Mindapa AK. Security problems of academic libraries in nigeria. library philosophy and practice (e-journal). 2022;7218.
 - Available:https://digitalcommons.unl.edu/lib philprac/7218
- Oyedum GU, Sanni AA, Udoakang IO. Security and Crime Challenges in Academic Libraries in Nigeria Journal of Information and Knowledge Management. 2014;5(2):127-140.
- Ugah AD. Evaluating the use of university libraries in Nigeria: A case study of Michael Okpara University of Agriculture, Umudike. Library Philosophy and Practice. 2007; 152:1-8

- Available:http://www.webpages.uidaho.edu /~mbolin/ugah2.htm.
- Akinola SA. Security of library resources 15. and crime challenge in Nigerian university libraries: A look at the situation in Joseph Ayo Babalola University, Ikeji Arakeji. Library Philosophy and Practice; 2020.
- Enyi KE, Tsegba JF. Effect of Security Challenges on Library Resources in the Federal University of Lafia Library, Nasarawa State International Journal of Library Information Services. and 2021:10(2):1-10.
- Adekunle FA, Adekunjo OA, Unuabor SO. Theft and vandalism: Effect and control mechanism on information resources in Academic Libraries in Osun State, Nigeria. IOSR Journal of Humanities and Social Science. 2018;23(7):71-78.
- Achigbue EI, Ajegbomogun FO, Okorie CN, 18. Adeyovin SO. Students deviant behavior towards utilization of library resources in university libraries in Ogun State. Owena Journal of Library and Information Science (OJOLIS). 2022;9(1):1-13.

- Abiove AA. Rasaki OE. Survey of security challenges in university libraries in Southwest Nigeria. Library & Archival Security. 2013;26:1-13. DOI: 10.1080/01960075.2013.869078
- 20. Yebowaah FA, Plockey FDD. Awareness and use of electronic resources in university libraries: A Case Study of University for Development Studies Library. Library Philosophy and Practice (e-journal). 2017;1562:1-33. Available:http://digitalcommons.unl.edu/lib
 - philprac/1562
- 21. Adekunle FA, Adekunjo OA, Unuabor SO. Theft and vandalism: Effect and control mechanism on Library resources in academic libraries in Osun State, Nigeria. IOSR Journal of Humanities and Social Science (IOSR-JHSS). 2018;23(7, Ver. 9):71-78.

Available:www.iosrjournals.org DOI: 10.9790/0837-2307097178. Retrieved 17/7/2021.

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