

## **Electronic Security Systems in Academic Libraries: A Case Study of Three University Libraries in South-West Nigeria**

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**ABSTRACT:** *This study examines the effectiveness of electronic security systems in academic libraries with a focus on selected university libraries in South-West Nigeria. The study is to find out what electronic security systems are in use in academic libraries, how library materials are removed illegally, and to ascertain the effectiveness of the electronic security devices in the libraries. A survey was designed for this study. Descriptive and inferential statistics of frequency counts and percentages were used to analyze data gathered through the survey. One hundred and nine (109) copies of the questionnaire were distributed. Eighty-one (81) copies (74%) were duly completed and retrieved from the respondents. A participant observation method was also employed to measure how effective the electronic security devices are. The study unveils that academic libraries have suffered adversely from security issues and other anti-social menace and that the installation of security devices would drastically improve the situation.*

### **I. Introduction**

Academic libraries are the “heart” of the learning community, providing a place for students and faculty to do their research and advance their knowledge (Simmonds, 2001). However, one major challenge that academic libraries have been faced with is security problems, that is, how to secure their valuable resources collected over time.

Akinfolarin (1992) observed that one of the serious issues that have bothered librarians from the earliest times to the present is how to ensure the security of library materials, especially against their theft and mutilation.

Bello (1998) asserted that not all thefts are committed by patrons. Some library staff take materials from the library without checking them out. This kind of theft, according to Lorenzen (1996), is one of the hardest to prevent, since library employees know how to defeat the security system.

It is important to secure library resources. It is equally important to ensure that the security is performed as seamlessly as possible, without interfering with the library's objective of providing a user-friendly environment (McComb, 2004).

Electronic security systems are devices that are used with the aid of electrical apparatus to secure library materials. They help libraries to control, minimize or avoid library material theft and unethical losses (Rajendran & Rathinasabapathy, 2007). Examples of electronic security systems installed in libraries are electronic surveillance camera (CCTV), 3M electronic security systems (electronic security gates), radio frequency identification (RFID) system, perimeter alarm system, etc.

## **II. Background of the Selected University Academic Libraries under Study**

### *1. Babcock University*

Babcock University is located in Ilishan-Remo in Ogun State, Nigeria. It is a privately owned university and operated by the Seventh-Day Adventist Church. The Babcock University Library is called Adekunle Alalade Library. The library system is composed of four subject libraries: Education and Humanity Library, Science and Technology Library, Management and Social Sciences Library, and Law and Security Services Library. The Adekunle Alalade Library has about 59,735 volumes of books, 780 journal titles, a collection of 250 CD-ROMs, and some other materials.

### *2. Covenant University, Ota*

Covenant University is a Christian mission university owned by the World Mission Agency, the Living Faith Church Worldwide, popularly known as the Winners Chapel. The University was established in 2002 and located in Ota, Ogun State, Nigeria. It has well over 6,000 students. Covenant University Library is known as the Centre for Learning Resources (CLR). The Centre has a collection of about 78,283 print volumes, 1,515 electronic book titles, seven online databases, over 40,000 electronic journal titles, and 942 print journal titles across all disciplines. It has a sitting capacity for about 3,500 students.

### 3. University of Lagos

The University of Lagos was founded in 1962 and is made up of two (2) main campuses, the main campus of Akoka, Yaba and the College of Medicine in Idi-Araba, Surulere. The University of Lagos Library has over 470,000 volumes, including journals.

### III. Objectives of Study

The objectives of this study are as follows:

- To find out the different electronic security systems installed in the university libraries under study
- To investigate how materials are taken out of the library
- To ascertain the effectiveness of electronic security systems installed in academic libraries under study

### IV. Literature Review

There appears to be a dearth in the publications in recent years on library security.

Citing the findings of Burrows and Cooper (1992), Matthews (2004) asserted that there appears to be little published in recent years on security and libraries, particularly in the UK. This could be interpreted as nonchalance of librarians and information professionals towards the issue of library collection security. A few authors did publish some articles on crimes in academic libraries but not much has been advocated for using modern technologies to remedy the situation. Academic libraries have invested enormously in books, journals, and other materials. The security of these huge investments is a *sine qua non* to the success of the libraries' effort to remain relevant and in providing good information service.

Some major security issues in academic libraries include, but not restricted to; mutilation of books, theft of library materials, intentional mis-shelving of books, use of other patron's library cards, duplicating ownership stamps, etc.

Electronic security systems can help control these unethical practices in academic libraries. Greenwood and Mckean (1985) reported that after installing an electronic security system at the

University of Kentucky Library, book loss rates had been decreased. Some major electronic security systems that can be of immense usefulness to academic libraries include electronic surveillance cameras (Closed Circuit Television-CCTV), 3M library security system (electronic gates), Radio Frequency Identification (RFID) system, perimeter alarm system, movement detectors, etc.

## V. Research Methodology

A survey design was adopted for this study. According to Ifidon and Ifidon (2007), a survey research method gathers data from members of a population in order to determine the current status of the population with respect to one or more variables. It is not concerned with individuals as entities, but with the generalized statistics that emanate when data are abstracted from a number of individual cases. A survey design involves a clearly defined issue and definite objectives.

## VI. Population of the Study

The target population of this study comprises of university librarians, heads of the readers' and technical services sections, and other staff in each of the three academic libraries of Covenant University, Ota; Babcock University, Ilisan-Remo; and the University of Lagos. One hundred and nine (109) copies of the questionnaire were distributed to respondents from the three academic libraries under study. Eighty-one (81) completed copies were retrieved from the respondents.

## VII. Analysis and Interpretation of Data

Table 1: Distribution of Questionnaire According to the Population of Study

<b>Institution</b>	<b>Distribution Frequency</b>	<b>Retrieval Frequency</b>
Covenant University	29	29
Babcock University	40	28
University of Lagos	40	24
<b>Total</b>	<b>109</b>	<b>81</b>

Table 1 shows the distribution of the questionnaire according to the population of study, the number of copies distributed and the number of copies retrieved.

Table 2: Distribution of respondents by Gender

Gender	Frequency	Percentage
Male	38	47
Female	43	53
<b>Total</b>	81	100

Table 2 shows that 38 (47%) of the respondents are male while 43 (53%) are female.

Table .3: Qualifications of respondents

Qualification	Frequency	Percentage
BLS	35	43
MLS	20	25
PhD	02	02
Others	24	30
<b>Total</b>	81	100

Table 3 shows that the highest qualification of most respondents (43%) is Bachelor of Library Science (BLS). Those with Masters in Library Science account for 25% while those with PhD account for 2%. Those without these degrees account for 30%.

Table 4: Distribution of respondents by years of experience

Years of Experience	Frequency	Percentage
1-5 years	54	67
6-10 years	18	22
11-15 years	03	04
16+ years	06	07
<b>Total</b>	81	100

Table 4 shows that the majority of the respondents (67%) are relatively new with 1-5 years' experience in the library profession. Those with 6-10 years account for 22%.

Table 5: Distribution of respondents according to job status

Job Status	Frequency	Percentage
Library Assistant - Library Officer	48	59
Assistant Librarian - Librarian II	23	28
Librarian I - Senior Librarian	05	06
Principal Librarian - Deputy University Librarian	02	03
University Librarian	03	04
<b>Total</b>	81	100

Table 5 shows that the majority of the respondents (59%) are Library Assistant. Librarian I and II (28%) are the next major group.

Table 6: Distribution of respondents by institutions

<b>Institution</b>	<b>Distribution Frequency</b>	<b>Distribution Percentage</b>	<b>Retrieval Frequency</b>	<b>Retrieval Percentage</b>
Covenant University	29	26	29	36
Babcock University	40	37	28	34
University of Lagos	40	37	24	30
<b>Total</b>	109	100	81	100

Table 6 shows that of the 109 copies of the questionnaire distributed, 81 copies (74%) were duly completed and retrieved.

*Research Question 1: What types of electronic security systems are available in the library?*

Table 7: Electronic security systems in academic libraries

<b>Electronic Security System</b>	<b>Covenant University</b>		<b>Babcock University</b>		<b>University of Lagos</b>	
	<b>R. N</b>	<b>R %</b>	<b>R. N</b>	<b>R. %</b>	<b>R. N</b>	<b>R. %</b>
<b>Closed Circuit Camera</b>			28	100		
<b>3M Security Gate</b>	29	100			24	100
<b>RFID</b>						
<b>Others</b>						

Table 7 shows that the three institutions under study have an electronic security system installed in their libraries. 28 respondents from Babcock University (100%) confirmed that CCTV camera is in the library, while 29 (100%) and 24 (100%) respondents from Covenant University and the University of Lagos respectively agreed that 3M electronic security system gates are installed in their libraries. In other words, there is an electronic security system installed in the academic libraries of the three institutions under study.

*Research Question 2: How are library materials taken away illegally?*

Table 8: Illegal removal of library materials

<b>Types</b>	<b>Covenant University</b>		<b>Babcock University</b>		<b>University of Lagos</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Outright theft of materials</b>	23	41	18	32	15	27	56	100
<b>Concealing books in clothes</b>	13	26	14	29	22	45	49	100

<b>Beating security checks</b>	16	43	11	30	10	27	37	100
<b>Throwing books through the windows</b>	6	37	8	50	2	13	16	100
<b>Impersonation</b>	13	46	8	29	7	25	28	100
<b>Others</b>								

Table 8 shows that there are different ways in which library materials are illegally taken away from the library. Of the total 81 respondents, 56 (69%) believed that some patrons out-rightly steal library books. 49 respondents (60%) believed that concealing books in their clothes is a sure way for patrons to smuggle books out of the library that does not have a 3M security gate. 37 respondents (46%) believed that fooling security checks is another way to remove library materials illegally.

*Research Question 3: How effective are the electronic security devices in the academic libraries under study?*

Participant observation method was used to measure the effectiveness of electronic security systems in the three academic libraries. The responses to the questionnaire may be biased regarding the effectiveness of electronic security systems. Hence, the researcher has employed the participant observation method to measure how effective these electronic security systems are.

Having obtained the permission from the library authorities to observe the operations of the electronic security systems installed in the libraries of the three institutions under study, the researcher, after distributing copies of the questionnaire, took some time off to observe how effective the devices were. With the assistance of a library staff and a security operative at Covenant University and the University of Lagos libraries, the researcher took a book from a shelf, concealed it under his clothes and tried to pass through a 3M security gate. True to the test, the alarm was triggered. This confirmed that the electronic security devices are effective.

At the Babcock University, the researcher obtained the permission to observe how the closed circuit cameras (CCTV) work. With the aid of the staff and security operative on duty, he was allowed to view, from the different cameras, the various activities taking place at the various sections of the library simultaneously. To test the effectiveness of the CCTV further, he took his

personal notebook to the serials section of the library and ripped off a page from it. Then he returned to the CCTV monitoring station and was astonished to see a playback of his actions in the serials section.

### **VIII. Conclusion**

Academic libraries have been plagued with security issues for a long time. It is difficult to replace materials that are stolen from the libraries or mutilated as such materials may be out of print or the library may not have the money to purchase a replacement copy. The traditional ways of manually checking patrons' bags are both inefficient and not user-friendly. A better way to deal with security in academic libraries is to embrace the electronic security systems. That will better ensure an effective security of library materials from theft, mutilation, or other forms of crimes.

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Submitted to CLIEJ on 23 May 2011

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Osayande, Odaro. (2011). Electronic security systems in academic libraries: A case study of three university libraries in South-West Nigeria. *Chinese Librarianship: an International Electronic Journal*, 32. URL: <http://www.iclc.us/cliej/cl32osayande.pdf>

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