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IMPACT OF ELECTRONIC SECURITY SYSTEMS IN THE SECURITY OF INFORMATION RESOURCES IN FEDERAL UNIVERSITY LIBRARIES IN SOUTHERN NIGERIA

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Abstract
The study investigated the impact of electronic security systems in the security of information resources in Federal University Libraries in Southern Nigeria. The sample for the study comprised one hundred and eleven librarians (111) drawn from seven Federal Universities. Purposive sampling was used to select seven Federal Universities from Southern Nigeria. The instrument used for the data collection was a structured questionnaire. The data obtained were analyzed using descriptive statistics. The major finding is that the electronic security systems are adequate check of threats to information resources in libraries studied, only that they are not used on regular basis. Even when they are not in use at all, its presence alone serves as a deterrent to thieves.

Keywords: Electronic security systems, Impact, Information resources and Libraries.
**Introduction**

Libraries in Nigeria have suffered severely in the hands of threats to information resources such as theft of library books and equipments, book mutilation, vandalism, arson, delinquent borrowers, displacing arrangement of materials, disaster such as flood, insect/rodents infestation and fire outbreak. So many manual measures have been adopted to tackle this, but all proved abortive. The only reliable security measure sensitive to this problem is the installation and regular use of electronic security systems.

In this period of technological advancement, the regular use of electronic security devices will undoubtedly increase the efficiency and effectiveness of collection protection in academic libraries (Maidabino, 2012). Electronic security systems are devices that are used with the aid of electrical apparatus to secure library materials, they also help libraries to control, minimize or avoid library materials theft and unethical losses (Rajendran & Rathinasabapathy, 2007). 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 systems (electronic gates), Radio frequency identification (RFID) system, Perimeter alarm system, movement detectors, fire alarm system (Osayande, 2011). The electronic security systems have been tested and trusted. There is no need spending money all the time on replacement of library materials that are lost due to threats to information resources when the electronic security systems are there to help us curb these threats.

**Literature Review**

According to Tomaiuolo in Cuddy and Marchok (2003), electronic security systems which began to be used in the early 1970's are the most effective
means of controlling theft, and many other library crimes. Bahr (1984) asserts that most libraries installing electronic security systems report loss reduction of 60% to 95%; this shows they are highly effective. Electronic security systems serve three main purposes. First, the mere presence of a system can act as a deterrent to crime. Second, if an intrusion occurs, it will be detected. Finally, the system will notify appropriate personnel, making apprehension of the intruder possible. Adewuyi and Adekanye (2011) attests that the electronic detector machine at the University of Lagos Main library has significantly assisted in detecting theft cases in their library. Osayande (2011) unveiled that academic libraries have suffered adversely from security threats and other anti-social menace, that the installation of electronic security systems in selected University libraries in South west Nigeria has drastically improved the situation. Osayande(2009) articulated that the installation of electronic security systems at the University of Kentucky reduced book theft, mutilation and so many other library crimes.

According to Rathnabahu (2012), the electronic security systems at the University and special libraries of Sri Lanka, monitors for criminal activities, monitors hard to see areas, review recorded video to resolve disputes, archive speakers or special events, protects employees and students. Many libraries attest to the effectiveness of electronic security systems on library crimes. Speaking to the times of India on the 16th of October, 2012, S.B. Patil, Chief Librarian, Karnataka University Library, India, said “After installing the CCTV’s we are now relaxed as we need not worry about what is happening inside the library. We can monitor all activities of students in all the floors from the counter and cases of book theft have come down considerably.” Vikas Nidagundi, a final year student of Karnataka University also said “I was
finding it difficult to concentrate on my studies when some mischievous students used to play music on their mobile phone and talk loud in the library, but after the cameras have been placed, there is silence in the library as wrong doers fear action. Jadhav and Kulkarni (2014) attest that electronic security systems are widespread and effective in deterring and catching thieves.

**Purpose of the Study**

The specifics objectives are to:

1. Find out the impact of electronic security systems in the security of information resources in Federal University libraries in Southern Nigeria.
2. Ascertain the challenges to the use of electronic security systems in Federal University libraries under study.
3. To determine the strategies to overcome the challenges to the use of Electronic Security Systems in the academic libraries under study.

**Research questions**

The following research questions guided the study:

1. What are the impacts of electronic security systems on security threats to information resources in Federal University libraries in Southern Nigeria?
2. What are the challenges to the use of electronic security systems in Federal University libraries in Southern Nigeria?
3. What are the envisaged solutions to the resolution of these challenges?
Methodology

A descriptive survey research design was adopted for this study. The study was conducted in Federal University libraries in Southern Nigeria. The sample for the study comprised one hundred and eleven librarian (111) drawn from seven Federal Universities. The selection of the seven Universities was based on the fact that they have deployed the use of electronic security systems in their libraries. The instrument used for the collection of data was a structured questionnaire. The data obtained for this study were presented based on the research questions that guided the study and descriptive statistics was used to analyze the data.

Result and Discussion

The results from data analysis are presented below:

Table 1. Mean (x) scores of the responses of Librarians in Federal University Libraries on the Impact of Electronic Security Systems in the Security of Information Resources

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Mean</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Use of ESS have stopped book theft in our library</td>
<td>111</td>
<td>3.24</td>
<td>Agree</td>
</tr>
<tr>
<td>2. The installation of ESS in our library have reduced book mutilation</td>
<td>111</td>
<td>2.78</td>
<td>Agree</td>
</tr>
<tr>
<td>3. Misuse of our library's internet have been curtailed with the use of ESS</td>
<td>111</td>
<td>2.63</td>
<td>Agree</td>
</tr>
<tr>
<td>4. Illegal borrowing of books in our library have been curbed with the use of ESS</td>
<td>111</td>
<td>2.76</td>
<td>Agree</td>
</tr>
<tr>
<td>5. Use of ESS have put to an end non return of borrowed books in our library</td>
<td>111</td>
<td>2.51</td>
<td>Agree</td>
</tr>
<tr>
<td>6. Vandalism of our library books have stopped since the installation of ESS</td>
<td>111</td>
<td>2.72</td>
<td>Agree</td>
</tr>
</tbody>
</table>
7. Use of ESS have curbed the defacement of our library materials/building: 111 2.54 Agree
8. Use of ESS have put to an end Arson (fire hazard) in our library: 111 2.63 Agree
9. Hiding of books in the shelves by users have reduced with the use of ESS: 111 2.45 Disagree
10. Use of ESS have curtailed verbal and physical abuse by patrons in our library: 111 2.45 Disagree
11. Violence against our library users by staff have reduced with the use of ESS: 111 2.45 Disagree
12. Use of ESS have stopped Insects/rodent infestation in our library: 111 2.30 Disagree
13. The installation of ESS in our library have curbed theft of patrons belongings: 111 2.63 Agree
14. Tearing of filed catalogue cards have stopped since the ESS was installed: 111 2.56 Agree
15. Use of ESS have stopped eating in our library by users: 111 2.50 Agree
16. Use of ESS in our library have reduced noise making in the reading halls by patrons: 111 2.45 Disagree

Overall mean: 111 2.6 Agree

In table two, the mean of the responses shows that the librarians agreed that the electronic security systems have impacted positively in the reduction of the following security threats to information resources listed below. The areas include: book theft in the library (mean=3.24), book mutilation in the library (mean=2.78), illegal borrowing of books (mean=2.76), misuse of library's internet (mean=2.63), non-return of borrowed books (mean=2.51), vandalism of library books (mean=2.72), defacement of library materials/building (mean=2.54), arson (fire hazard) (mean=2.63), theft of patrons belongings (mean=2.63), tearing of filed catalogue cards (mean=2.56) and eating in the library (mean=2.50). The librarians perceived electronic security systems as not having impact on the remaining five areas of security threats as they have not led to reduction in these areas. This is indicated by their mean responses which were less than 2.50. The areas include;
hiding of books in the shelves by users (mean=2.45), verbal and physical abuse by patrons (mean=2.45), violence against library users by staff (mean=2.45), insects/rodent infestation (mean=2.30) and noise making in the reading halls by patrons (mean=2.45). This indicates that the degree of positive impact of the electronic security systems on security threats were higher by the librarians in the libraries studied.

Table 2. Mean (x) scores of the Responses of Librarians in Federal University libraries on the Challenges to the use of Electronic Security Systems

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Mean</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is inadequate funding to support the electronic security systems</td>
<td>111</td>
<td>3.29</td>
<td>Agree</td>
</tr>
<tr>
<td>2. Lack of University management attention on the security needs</td>
<td>111</td>
<td>2.81</td>
<td>Agree</td>
</tr>
<tr>
<td>3. The electronic security systems are not in regular use due to power outage</td>
<td>111</td>
<td>3.08</td>
<td>Agree</td>
</tr>
<tr>
<td>4. Fear of reduction in staff by the library management</td>
<td>111</td>
<td>2.40</td>
<td>Disagree</td>
</tr>
<tr>
<td>5. Inadequate competent personnel to handle the electronic security system</td>
<td>111</td>
<td>2.46</td>
<td>Disagree</td>
</tr>
<tr>
<td>6. The electronic security systems are not used due to the privacy invasion of library staff and users</td>
<td>111</td>
<td>2.29</td>
<td>Disagree</td>
</tr>
<tr>
<td>7. System failure or downtime</td>
<td>111</td>
<td>2.75</td>
<td>Agree</td>
</tr>
<tr>
<td>8. Poor maintenance</td>
<td>111</td>
<td>2.63</td>
<td>Agree</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>111</td>
<td>2.71</td>
<td>Agree</td>
</tr>
</tbody>
</table>

As shown by the means in table 3 above, five out of eight challenges listed were accepted as challenges to the use of electronic security systems in southern Nigeria Federal Universities Libraries. These five challenges are: inadequate funding to support the electronic security systems (mean=3.29), the electronic security systems are not in regular use due to power outage (mean=3.08), the electronic security systems are not used due to the privacy invasion of library staff and users
(mean=2.29), lack of university management attention on the security needs of the library (mean=2.81), system failure or downtime (mean=2.75) and poor maintenance (mean=2.63). While they disagree to the following as challenges to the use of electronic security systems in academic libraries: fear of reduction in staff by the library management (mean=2.40), inadequate competent personnel to handle the electronic security system (mean=2.46) and non-utilization of electronic security system due to privacy (mean=2.29).

Table 3. Mean (x) scores of the responses of Librarians in Federal University libraries on the Envisaged Solutions to the Challenges of Electronic Security Systems

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Mean</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There should be proper funding of the university libraries by the federal government for maintenance</td>
<td>111</td>
<td>3.76</td>
<td>Agree</td>
</tr>
<tr>
<td>2. The university management should attend to the security needs of their library without hesitations</td>
<td>111</td>
<td>3.56</td>
<td>Agree</td>
</tr>
<tr>
<td>3. The chief librarians should create more awareness on the need for electronic security system</td>
<td>111</td>
<td>3.46</td>
<td>Agree</td>
</tr>
<tr>
<td>4. Alternative source of power should be provided in the library</td>
<td>111</td>
<td>3.56</td>
<td>Agree</td>
</tr>
<tr>
<td>5. The library should introduce a fee based library service in the e-library to support the electronic systems effort</td>
<td>111</td>
<td>2.98</td>
<td>Agree</td>
</tr>
<tr>
<td>6. There should be training and retraining of library staff on the electronic security systems nature and use to enhance constant use and minimize damages</td>
<td>111</td>
<td>3.51</td>
<td>Agree</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>111</td>
<td>3.47</td>
<td></td>
</tr>
</tbody>
</table>
The mean responses on the ways to overcome the challenges to the use of electronic security systems shown in Table 4 indicate that respondents agree that all the six strategies listed as the possible solutions to the resolution of the challenges of electronic security systems in Southern Nigeria Federal Universities’ Libraries. These include; proper funding of the university libraries by the federal government (mean= 3.76); University management attending to the security needs of their library without hesitations (mean= 3.56); chief librarian’s creation of awareness on the need for electronic security systems (mean=3.46); provision of alternative source of power (mean=3.56); should introduce a fee based library service in the e-library to support the electronic systems effort (mean=2.98); training and retraining of library staff on the electronic security systems nature and use to enhance constant use and minimize damages (mean= 3.51). However, from the respondent’s indication, it shows that the constraints mentioned above are available in their library that is why these resolutions are highly needed.

Discussion

The findings for the study revealed that electronic security systems have impacted positively in the reduction of the following security threats to information resources in the library; Book theft, mutilation, misuse of library’s internet, illegal borrowing of books, defacement, arson, theft of patron’s belongings, tearing of filled catalogue cards and eating in the library. This finding tends to agree with that of Jadhav and Kulkarni (2014) who attest that electronic security systems are widespread and effective in deterring and catching thieves.

Challenges to the use of electronic security systems include; inadequate funding to support the electronic security systems, lack of University management attention on the security needs of the library, power outage, system failure or downtime, and poor maintenance.
Proper funding of the University libraries by the Federal Government, University management attending to the security needs of the library without hesitations, creation of awareness by the University librarian on the need for regular use of electronic security systems, provision of alternative source power, introduction of a fee based library service in the e-library to support the electronic security system’s effort, training and retraining of library staff on the electronic security system’s nature and use are suggested ways of overcoming challenges to the use of electronic security systems.

Conclusions

The electronic security systems have impacted positively in the reduction of security threats to information resources in the libraries under study. If only libraries can install these systems, use them on regular bases and give them proper maintenance, threats to information resources in the libraries will become a history.

References


