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Information Security Management for Sustainable Learning among Information Professionals in Public Universities in Rivers State, Nigeria

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ABSTRACT

This study investigated information security management for sustainable learning among information professionals in public universities in Rivers State, Nigeria. Two research questions and two hypotheses guided the study. The population consists of the 49 information professionals in the three universities in Rivers State. University of Port Harcourt (20), Rivers State University (19) and Ignatius Ajuru University of Education (11) respectively. A sample size of 49 information professionals in the three universities representing 100% of the population served as respondents. Census sampling technique was used for the study. In doing this, all the information professionals that make the population were used. A 12-item questionnaire was used for data collection. Cronbach alpha statistics was used to obtain 0.77 reliability. The mean scores and standard deviation were used to answer the research questions while the z-test statistics was used to test the hypotheses at 0.05 level of significance. The result amongst others revealed information professionals in both Federal and State Universities disseminate information through social media networks to delivering personalized information resources to clients and through Quick Response (QR) codes which easily direct users to desired websites to save time for sustainable learning,. Meanwhile, information professionals do not disseminate information through online reference services technology, personal space, online Video-on-Demand (VOD) system and Online Public Access Catalogues where library users are able to retrieve and access information resources in a timelier manner. It was recommended that, Universities institutions should check and reform their information dissemination system to start applying online reference services technology, personal space, online Video-on-Demand (VOD) system and Online Public Access Catalogues where library users are able to retrieve and access information resources in a timelier manner.

KEYWORDS: *Information Security, Management, Sustainable Learning, Academic University Libraries and Information Professionals.*

INTRODUCTION

The use of technology in the library has gained prominence as information is accessed remotely through digital and virtual libraries. The academic libraries in this information revolution era understood the importance of their presence in virtual world along with their physical existence. Therefore, for maximizing the use of their information

resources and services, all academic libraries are trying to satisfy their users in a more productive and appealing ways. Currently, there are automated library, digital library, hybrid library, virtual library and library 2.0 that are used by librarians to serve their clients' needs and their services, tools, software can be accessed by their users from anywhere and anytime across the world. Hence information security represents a significant management challenge for the libraries. Looking at the increasing number of users seeking to use computers, networks and information and communication technology provided by the library, we must seriously take into consideration information security management (ISM). Information security in the library is the sensitive protection of information from a wide range of threats in order to ensure library functionality, to minimize operational risk and to accordingly maximize efficiency in their collective operation opportunities.

The goal is mainly concerned with detecting and preventing unauthorized acts of clients in all ramifications. Information security is achieved by a suitable set of controls known as Information Security Management (ISM). ISM includes policies, process, procedures, organizational structures, software and hardware functions that needs to be implemented in order to ensure it sensibility in managing the risks factors associated with it. On this note, such controls need to be established and implemented, monitored, reviewed and improved where necessary so as to ensure that the specific security of information in the library are protectively secured (Charney, 2014). Information may exist in many forms; it can be printed or written on paper, stored electronically and transmitted by post or by electronic means. Whatever form information takes or the means by which it is shared, it should always be appropriately protected. Notwithstanding, libraries have long been on the frontlines of social movements, providing the sites, services, and resources to educate, inspire, and connect their communities for sustainable learning. The sustainability movement is therefore a natural fit for academic librarians who tend to excel at gathering, synthesizing, and disseminating information as well as communicating across disciplines. Librarians lead students to the authoritative information, enabling these future leaders to be more effective sustainability educators, advocates, activists, agitators in a bid to be agents of change.

One reason why information security management is needed is because of the serious threats that are associated with library operation where there are experiences of deliberate software attacks (viruses, worms, macros, denial of service), technical software failures and errors relating to bugs, coding problems, unknown loopholes, issues with human error or failure as a result of accidents and employee mistakes, deliberate acts of espionage or trespass which could in the form of unauthorized access or data collection, deliberate acts of sabotage or vandalism in the form of destruction of information or system, technical hardware failures like equipment failure, illegal confiscation of equipment or information, deliberate art of compromises to intellectual property which could be piracy, copyright, infringement, technological obsolescence like antiquated or out-dated technologies, information extortion like blackmail for information disclosure and many others. Obviously, in the dissemination of information or materials, librarians can provide assistance to library users in order to properly enforce the copyright laws in the library by ensuring that research projects in the library are made available to researchers for consultation only, and also made known that only creators reserves to himself or herself or his or near and dear ones in his creative works on the right to reproduce, right to modify, right to commit for translation, right to transmutation, right to commit to other forms like cinematographic reproduction and so on (Jadhav, 2012).

In this situation, the understanding of such complex nature of information security process and its related management issue would be made easy by information security management (Chutia, 2015). Due to this facts, we can see that issues relating to library information security management are numerous because as librarians engage in their activities, they are always faced with challenges of software attacks on servers, intellectual properties & equipment theft, information sabotage, funding, talent constraints, lack of information security training for staff, lack of recovery plan, lack of

sustainable cyber-security policies, information sabotage, extortion, IT resources vulnerability to attack and data manipulation (Shivarama & Dawar, 2019). The aforementioned challenges faced in library operation calls for a serious need to build a strong information security management among librarians to attain confidentiality and uphold the secrecy of the information asset, stick to operational integrity, material availability, information authenticity and non-repudiation will lead to sustainable learning and avoid all sorts of failures and weaknesses that could hamper the entire system (Onoyeyan & Awe, 2018).

In a bid to protect and disseminate information for sustainable learning, the Internet Steering Committee in Brazil as cited in Onoyeyan and Awe (2018) considers these as basic safety requirements to follow:

- Individual identification is necessary to allow such entity to identify itself by telling who him or her is before granting access. E.g. the case of a robot.
- Authentication to verify that the entity is actually who it claims to be must be known
- Authorization to determine the actions that the entity can execute before information is made opened.
- Integrity must be confirmed to protect information against unauthorized alteration.
- Confidentiality or secrecy must be ensured to protect information against unauthorized access.
- Avoidance of repudiation to cease an entity to any way denies that it was she or her who carried out an action.
- Assurance of feature availability whenever needed.

Ways Information is protected in Academic Libraries for Sustainable Learning

In the library, for the purpose of securing or protecting information, guidelines must be set by library management to further recognize an Acceptable Use Policy (AUP), which makes library Internet users aware of what is and what is not acceptable use of library computers, and the possible sanctions to be labeled on users if breached policy rules like using a library's computers to access other computers without permission. An AUP should inform users of their responsibilities, which include both legal requirements and those, defined by the library, provide the library with legal protection from liability and make it clear to users that the library is not responsible for their actions on-line with regard to possible fraud by third parties resulting in losses to the user (Shivarama & Dawar, 2019). The overall purpose of an AUP is to define a contract between the centre and the user - the policy, the limits of the service, setting out what services are available and what would lead to those services being withdrawn.

On this simplistic note, for information security management purpose, academic libraries have the responsibility of preparing documents aimed at establishing general rules for the use of library equipment, materials and computational resources for the research, teaching, extension and administrative activities of higher education institutions so that threats of all kinds would be avoided. Therefore, when creating institutional policies, such as guidelines, standards and rules, they should complement the Institution's information security policy, not replace existing policies or even other documents that apply to the use of equipment and computing resources to encourage consistency of purpose. In the management of information, access restrictions must be implemented through Information Security Policy to establish specific control on access of users restricting them to only applications, files and utilities essential to carry out their functions in the organization to curtail actions regarded as contradictory or controversial for users (Onoyeyan & Awe, 2018). This control can be done by menus, functions or files. Libraries fill a unique position as custodians of copyrighted materials. Copyright law is a legal economic and moral right that protects the owner of the property rights in literary and artistic works against those who adopt the exact form of words or arrangement employed by the author in the production of his work. Nonetheless, librarians play an important role in the free access to information and are responsible for dissemination of information to users and are expected to protect intellectual property rights of creators from exploitation.

The main role of librarians is to make available library collections to students and faculty in support of teaching, learning, research and scholarship. Librarians need to stick to copyright provision that states that, violation of copyright occurs when a user reproduce or photocopy the whole copyrighted material of an author without the permission of the owner and when the sale, translation/ transcription, adaptation, public lease, rental and public performance of a copyrighted material is undertaken without the authorization of the copyright owner (Onoyeyan & Awe, 2018). This law actually protects the indiscriminate copying and distribution of an author's work without the permission of the author. However, it is necessary for librarians to take into consideration the conduct of users, as many may not take care when using public access computers, most especially when they access e-mails and other vital accounts and forget them open. No matter the situation, users expect and trust that the library is responsible for keeping their data and equipment available in good condition with respect to the security of their data and others. All these is to ensure that something is not lost or falls into the wrong hands and that such information is available when needed and its integrity can be guaranteed. So with regards to the protection of information, information security management system should involve legislation, technical standards, business and technology which must be taken into account in the protection and elaboration of an Information Security Policy. This is to protect information from networks and cyber threats that leave IT resources vulnerable to attack, theft and data manipulation, counterfeits and so on (Vieira, 2014).

Ways Information is disseminated in Academic Libraries for Sustainable Learning

The advent of technology and continuous ICT developments and advancement are changing libraries in terms of information acquisition, storage, organization, maintenance and the methods of rendering services (Fagbola, Uzoigwe, & Ajegbomogun, 2011). For the sake of information security management in the 21st century, the following according to Shonhe (2017) are some of the methods used to disseminate information. Most methods are self-service techniques which involve the use of technology such as smart-phones, PDAs, computers, laptops, MP3s, and so no.

- Online Public Access Catalogues and networked databases: Because of online presence of catalogues, library users are able to retrieve and access information resources in a timelier manner. OPACs can be accessed through the use of mobile technology such as cell phones that allows library users to be within the library walls to access OPACS and library databases. Information seekers retrieve various information sources through OPACS and mobile based databases such as Pub Med (contains biomedical literature with more than 26 million citations which may include Full-text content (PubMed, 2017). E.g. New York public library, Jefferson county public library, University of Liverpool library, and Nashville public library uses mobile OPACs (Nalluri & Gaddam, 2016).
- Personal space/My Library: this is a self-service platform which allows library users to manage their personalized accounts with custom-made collections. Users here can manage their profile, preferences for catalogue searches, receive alerts on reserved items, check their records, track interlibrary loan request, renew borrowed items and document delivery requests Verma & Verma, 2015). Here providers of information can send customized scanned documents, images, audio books and eBooks to library users' personalized accounts.
- Short Message Service (SMS) notification: It has to do with using mobile telephone systems to disseminate information in the form of text messages and multimedia content such as videos, images and audio files. Libraries use this service to alert patrons regarding outstanding fees, renewals, provision of call numbers, interlibrary loan, issue return notification, items on hold and new arrivals (Kumar, 2014; Negi, 2014).
- Social media networks: Social networks seems to be more appropriate for use on marketing information and delivering personalized information resources to groups of people or individuals by information professionals. SMS notification can also be used through the use of social media networks (WhatsApp, Imo) and other web applications such as Google SMS, twitter, Facebook and Pinterest (Prabhakaran & Kalyani, 2014).

- Quick Response (QR) codes which are two dimensional barcodes that easily direct users to the desired websites to save time (Library success, 2014). The barcodes contain information about an item to which QR code is attached. Users with smartphones use their camera features to scan images and decode the information (Saxena & Yadav, 2013).
- Online reference services: with this, information providers can attend to multiple customer queries at the same time. Using this technology, brief responses to customer enquiries such as opening hours, call numbers, and dictionary definitions can be easily provided instantly in real time (Liu & Briggs, 2015). E.g. live video calling can be done through Skype, Imo and WhatsApp to chat with reference librarians to create bond with patrons and improve their efficiency.
- Online Video-on-Demand (MVOD) system allows patrons to play videos on their mobile devise through the use of Wi-Fi or 3G network (Wang, Ke, & Lu, 2012). Videos can be searched using access points such as name of creator or tittle of the video (Prabhakaran & Kalyani, 2014). For example; the Oriental Institute of Technology (OIT) library uses the MVOD system (Wang, Ke, & Lu, 2012).
- Library web sites are simply used in many libraries for marketing and announcement of upcoming events to their clients. The use of techniques like CSS (Cascading Style Sheets) or ADR (Auto-Detect and Reformat Software) are utilized to enable websites to rearrange and adapt to the size of the mobile device being used (Nalluri & Gaddam, 2016). In this case, every library is believed to have a website that will enable them to disseminate information and create the means for their users for easy access.
- Mailing lists: this is about using email in library services to allow people to receive personalized information at the same time.

STATEMENT OF THE PROBLEM

Academic libraries in Rivers State, like libraries in some parts of the Nigeria, were established purposely to meet the information needs of the institutions and clients through the collection and preservation of information resources to support teaching, research and dissemination of sustainable knowledge. Notwithstanding, no matter the importance of library establishment, there seems to be inadequate security to control behaviours, over disappearance of library materials, loss of confidentiality and integrity among clients hoping for sustainable learning in academic libraries. The means to protect and disseminate library resources has been on the alarming side considering the rate of scandalous behaviours such as theft and mutilation, drinking and eating in physical libraries by users, arson, negligence to library policies, software attacks on servers, intellectual properties & equipment theft, information sabotage, funding, talent constraints, lack of information security training for staff, lack of recovery plans of missing materials, lack of cyber-security policy, information sabotage, vandalism and defacement of library collections among others have become a common occurrence in academic libraries and if this is not checked, it would lead to serious drought of information materials in the library.

There are issues of lack of digital security to monitor library operations, performance and organization. Academic libraries have been faced with other varying degrees of challenges with respect to shortage of technical professional manpower to attend to technical and technological issues, delinquent library users and staff who have devised many ways of illegally removal of information materials or resources from the library, defacing furniture and books, monopolization of materials, sleeping and talking in physical library most especially university students distracting other library users.

AIM AND OBJECTIVES OF THE STUDY

The study investigated information security management for sustainable learning among information professionals in public universities in Rivers State, Nigeria. The objectives of the study are to:

1. Examine the ways information is protected in academic libraries for sustainable learning among information professionals in public universities in Rivers State.

2. Ascertain the ways information is disseminated for sustainable learning among information professionals in public universities in Rivers State.

RESEARCH QUESTIONS

1. In what ways is information protected in academic libraries for sustainable learning among information professionals in public universities in Rivers State?
2. In what ways is information dissemination for sustainable learning among information professionals in public universities in Rivers State?

HYPOTHESES

1. There is no significant difference between the mean scores of information professionals in federal university and state universities on the ways information is protected in academic libraries for sustainable learning among academic librarians in public universities in Rivers State.

2. There is no significant difference between the mean scores of information professionals in federal universities and state universities on ways information is disseminated for sustainable learning among academic librarians in public universities in Rivers State.

METHODOLOGY

The study employed descriptive survey research design. The population consists of 49 information professionals in the three universities in Rivers State. University of Port Harcourt (20), Rivers State University (19) and Ignatius Ajuru University of Education (11) respectively. A sample size of 49 information professionals in the three universities representing 100% of the population served as respondents. Census sampling technique was used for the study. In doing this, all the information professionals that make the population were used. The instrument that was used for data collection in this study was a 12-item questionnaire titled: Information Security Management for Sustainable Learning among Information Professionals in Public Universities Questionnaire" (ISMSLIPPUQ). The questionnaire was divided into two sections: section A was used to collect demographic data from the respondents, while section B which is the questionnaire instrument with 12 items which was used to gather responses from the respondent. The criterion mean of 2.50 was used as the bench mark for agreeing or disagreeing to responses in the mean calculations in the study.

The 4- points modified likert rating scale of Strongly Agree (SA) = 4 points; Agree (A) = 3 points; Disagree (D) = 2 points; and Strongly Disagree (SD) = 1 point) was used as response options to guide the respondents' opinions on the instrument Cronbach alpha statistics was used to obtain a reliability coefficient of 0.77. Mean scores and standard deviation were used to answer the research questions while the z-test statistics was used to test the hypotheses at 0.05 level of significance.

RESULTS AND DISCUSSION

Data Analysis and Empirical Results

Research Question 1: In what ways is information protected in academic libraries for sustainable learning among information professionals in public universities in Rivers State?

Table 1: Mean and Standard Deviation Analysis of Information Professionals in Federal University and State Universities on ways information is protected in academic libraries for sustainable learning among information professionals in public universities in Rivers State.

S. N.	Items	Information Professionals in Federal University (18)		Information Professionals in State University (27)			
		$\overline{X}$	SD	$\overline{X}$	SD	$\bar{X}_1\bar{X}_2$	Remark
1	In your university, information professionals utilized **s**ocial network websites technologies in their library to grant clients access to material at any time	2.12	1.18	2.01	1.22	2.07	**Disagreed**
2	In your university there are technological mechanism to track online library users who violated copyright regulations and are punished by the law	1.89	1.27	2.12	1.18	2.01	**Disagreed**
3	In your university, information that protects author's materials or resources from infringement of copyright laws are not regularly provided to library users to guide their conduct	1.94	1.25	2.7	1.36	2.32	**Disagreed**
4	Library management in your university strictly implements information, access restrictions measures through Information Security Policy that establishes specific control on access of users	3.00	1.23	2.60	1.22	2.8	**Agreed**
5	Copyright regulations that are enacted to enable users to utilize library services without violating copyright laws are respectfully held on to by library users	1.60	1.37	2.61	1.22	2.11	**Disagreed**
6	Intellectual property rights of creators are protected from exploitation in your operation	3.32	1.38	3.60	1.57	3.46	**Agreed**
Average mean and standard deviation		**2.31**	**1.05**	**2.61**	**1.30**		

Table 1 indicated that items number 6 had the highest mean scores of 3.46 followed by item 4 with 2.8 which are above the criterion mean of 2.50 indicating that, intellectual property rights of creators are protected from exploitation in the operation of libraries in universities in Rivers State and library management in Rivers State universities strictly implements information access restrictions measures through Information Security Policy that establishes specific control on access of users for sustainable learning. Meanwhile, items 1, 2, 3 and 5 had mean scores below the criterion mean of 2.50 indicating that, information professionals do not utilized **s**ocial network websites technologies in their library to grant clients access to material at any time, there are no technological mechanism to track online library users who violated copyright regulations and are not punished by the law in the universities, information that protects author's materials or resources from infringement of copyright laws are regularly provided by information professionals to library users to guide their conduct but even when copyright regulations are enacted to

enable users utilize library services without violation they still deliberately violate them.

Research Question 2: In what ways is information dissemination for sustainable learning among information professionals in public universities in Rivers State?

Table 2: Mean and Standard Deviation Analysis of Information Professionals in Federal University and State Universities on ways information is dissemination for sustainable learning among information professionals in public universities in Rivers State.

S.N.	Items	Information Professionals in Federal University (18)		Information Professionals in State University (27)			
		$\overline{X}$	SD	$\overline{X}$	SD	$\bar{X}_1\bar{X}_2$	Remark
1	In your university, information is disseminated through Online reference services technology where brief responses to customer enquiries such as opening hours, call numbers, and dictionary definitions can be easily provided instantly in real time	1.85	1.29	2.12	1.18	1.99	**Disagreed**
2	In your university, information is disseminated through Personal space which allows library users to manage their personalized accounts with custom-made collections.	2.13	1.19	2.17	1.17	2.15	**Disagreed**
3	In your university, information is disseminated through online Video-on-Demand (VOD) system that allows patrons to play videos on their mobile devise through the use of Wi-Fi or 3G network.	1.83	1.32	1.85	1.29	1.84	**Disagreed**
4	In your university, information is disseminated through social media networks to delivering personalized information resources to clients when necessary	2.72	1.94	2.50	1.82	2.61	**Agreed**
5	In your university, information is disseminated through Online Public Access Catalogues and networked databases where library users are able to retrieve and access information resources in a timelier manner	1.80	1.32	1.60	1.37	1.7	**Disagreed**
6	In your university, information is disseminated through Quick Response (QR) codes which easily direct users to desired websites to save time	3.12	1.28	2.60	1.22	2.86	**Agreed**
Average mean and standard deviation		**2.24**	**1.39**	**2.14**	**1.34**		

Table 2 indicated that items number 6 had the highest mean scores of 2.86 followed by item 4 with 2.61 which are above the criterion mean of 2.50. It simply mean that, information professionals in both Federal and State Universities disseminate information through

social media networks to delivering personalized information resources to clients when necessary and through Quick Response (QR) codes which easily direct users to desired websites to save time for sustainable learning. Meanwhile, items 1, 2, 3 and 5 had mean scores below the criterion mean of 2.50 indicating that, information professionals do not disseminate information through online reference services technology where brief responses to customer enquiries such as opening hours, call numbers, and dictionary definitions can be easily provided instantly in real time, they do not disseminate information through personal space which allows library users to manage their personalized accounts with custom-made collections, they do not disseminate information through online Video-on-Demand (VOD) system that allows patrons to play videos on their mobile devise through the use of Wi-Fi or 3G network and do not also disseminate through Online Public Access Catalogues and networked databases where library users are able to retrieve and access information resources in a timelier manner.

Test of Hypotheses

Ho_1: There is no significant difference between the mean scores of information professionals in federal university and state universities on the ways information is protected in academic libraries for sustainable learning among academic librarians in public universities in Rivers State.

Table 3: z-test Analysis of the Difference between the Opinions of Information Professionals in Federal University and State Universities on the ways information is protected in academic libraries for sustainable learning among academic librarians in public universities in Rivers State.

Subject	N	$\bar{x}$	SD	Df	z-cal.	z-crit.	Level of Sig	Remark
IP in Federal University	18	2.31	1.05	2 44	-0.85	±1.96	0.05	Accepted
IP in State Universities	27	2.61	1.30					

The result of table 3 shows that the z-calculated value of -0.85 is less than the z-critical value of 1.96 at degree of freedom of 44 at 0.05 level of significance. Therefore, the null hypothesis is accepted and upholds that, there is no significant difference between the mean scores of information professionals in federal university and state universities on the ways information is protected in academic libraries for sustainable learning among academic librarians in public universities in Rivers State.

Ho_2: There is no significant difference between the mean scores of information professionals in federal universities and state universities on ways information is dissemination for sustainable learning among academic librarians in public universities in Rivers State.

Table 4: z-test Analysis of the Difference between the Opinions of Information Professionals in Federal University and State Universities on ways information is dissemination for sustainable learning among academic librarians in public universities in Rivers State.

Subject	N	$\bar{x}$	SD	Df	z-cal.	z-crit.	Level of Sig	Remark
IP in Federal University	18	2.24	1.39	2 44	0.24	±1.96	0.05	Accepted
IP in State Universities	27	2.14	1.34					

The result of hypothesis 1 showed that the z-calculated value of 0.24 is less than the z-critical value of ±1.96 at degree of freedom of 44 at 0.05 level of significance. We therefore retain the null hypothesis and uphold that, there is no significant difference between the

mean scores of information professionals in federal university and state universities on the ways information is dissemination for sustainable learning among academic librarians in public universities in Rivers State.

SUMMARY OF FINDINGS

1. It was found that, intellectual property rights of creators are protected from exploitation in the operation of libraries and library management strictly implements information access restrictions measures through Information Security Policy but information professionals do not utilized **s**ocial network websites technologies in their library to grant clients access to material at any time, no technological mechanism to track online library users who violated copyright regulations and are not punished even when copyright regulations are enacted to enable users utilize library services without violation they still deliberately violate them.
2. It was also found that, information professionals in both Federal and State Universities disseminate information through social media networks to delivering personalized information resources to clients and through Quick Response (QR) codes which easily direct users to desired websites to save time for sustainable learning,. Meanwhile, information professionals do not disseminate information through online reference services technology, personal space, online Video-on-Demand (VOD) system and Online Public Access Catalogues where library users are able to retrieve and access information resources in a timelier manner.

DISCUSSION OF FINDINGS

The result of this study revealed that, intellectual property rights of creators are protected from exploitation in the operation of libraries and library management strictly implements information access restrictions measures through Information Security Policy but information professionals do not utilized **s**ocial network websites technologies in their library to grant clients access to material at any time, no technological mechanism to track online library users who violated copyright regulations and are not punished even when copyright regulations are enacted to enable users utilize library services without violation they still deliberately violate them. This finding is in consonance with the findings of Vieira, (2014) who found that, information security management system should involve legislation, technical standards, business and technology which must be taken into account in the protection and elaboration of an Information Security Policy. Onoyeyan and Awe (2018) also found that, management could implement access restrictions on Information Security Policy to establish specific control on access of users restricting them to only applications, files and utilities essential to carry out their research.

The result of this study also found that, information professionals in both Federal and State Universities disseminate information through social media networks to delivering personalized information resources to clients and through Quick Response (QR) codes which easily direct users to desired websites to save time for sustainable learning,. Meanwhile, information professionals do not disseminate information through online reference services technology, personal space, online Video-on-Demand (VOD) system and Online Public Access Catalogues where library users are able to retrieve and access information resources in a timelier manner.This study do not coincides with the findings of Liu and Briggs (2015) who found online reference services technology as a means of information, librarians can use it to disseminate information to multiple customer queries at the same time. Meanwhile, the study is in consonance with the study of Prabhakaran and Kalyani (2014) who also found social networks to be more appropriate for use on marketing information and delivering personalized information resources to groups of people or individuals by information professionals through SMS notification, WhatsApp, Imo and other web applications such as Google SMS, twitter, Facebook and Pinterest.

CONCLUSION

From the findings so far, it is very clear that, no matter the importance of library establishment, there seems to be inadequate security to control behaviours, over

disappearance of library materials, loss of confidentiality and integrity among clients hoping for sustainable learning in academic libraries. The means to protect and disseminate library resources has been on the alarming side considering the rate of scandalous behaviours such as theft and mutilation, negligence to library policies, software attacks on servers, intellectual properties & equipment theft, information sabotage, lack of recovery plans of missing materials, lack of cyber-security policy, and defacement of library collections among others. To eradicate crime and improve security measures in the libraries, some preventive measures such as written security policy must be placed on the notice boards, manual security approach such as monitoring users in the library premises and online, introduction of electronic security system for sustainable learning.

RECOMMENDATIONS

Based on the findings of the study, the researchers recommended that:

1. Information professional through school management should build their library system in a way to accommodate the dissemination of information through online reference services technology, utilized **s**ocial network websites technologies in their library to grant clients access to material at any time and use technological mechanism to track online library users who violated copyright regulations

2. Universities institutions should check and reform their information disseminate system to start applying online reference services technology, personal space, online Video-on-Demand (VOD) system and Online Public Access Catalogues where library users are able to retrieve and access information resources in a timelier manner.

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