

Availability and Utilization of ICT Facilities for Enhancing University Campus Security in South-South, Nigeria.

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Abstract

The study determined the availability and utilization of ICT facilities for enhancing university campus security in South-south, Nigeria. Two research questions guided the study and one null hypothesis was tested at 0.05 level of significance. Descriptive survey research design was employed for the study. The population for this study comprised 1,520 security personnel from the 12 government-owned universities in South-South, Nigeria. A total of 456 security personnel were sampled using the proportionate stratified sampling technique. The instruments for data collection were a “Checklist on Availability of ICT Facilities for Enhancing University Campus Security (CAICTFEUCS)” and a five-point rating scale questionnaire titled “Utilization of ICT Facilities for Enhancing University Campus Security (UICTFEUCS)”. The instruments were validated by three experts. Method of internal consistency was used to determine the reliability of the instruments using Cronbach Alpha with SPSS and reliability coefficients of 0.75 and 0.78 were obtained for the two instruments with an overall reliability coefficient of 0.77. Out of the 456 copies of the instrument administered on the respondents, 433 copies representing about 96 percent were successfully retrieved and used for data analysis. Frequency counts and percentages were used to analyze data related to research question 1 while mean and standard deviation were used to answer research question 2. Z-test statistic was used to test the null hypothesis at 0.05 level of significance. The findings of the study revealed that ICT facilities are not adequately available for enhancing university campus security in South-South Nigeria. The study also revealed that there is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria. The study concluded that the level of availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria was not adequate for combating security challenges in the university system. Based on the findings and conclusion, it was recommended among others that the Nigerian government and the university administrators should train the campus security personnel on the utilization of various modern ICT facilities. This is to enable them become fully competent and completely equipped to utilize the ICT facilities in combating various campus-related crimes, thereby protecting the lives and properties within the university community.

Key words: Availability, Utilization, ICT Facilities, University, Campus and Security

Introduction

From ancient societies to modern nations, one tool has proven most potent in the struggle for survival, growth and development; that tool is education (Wokocha, 2012). It is a tool in the promotion and substance of national development. The National Policy on Education (2013), states that education will continue to be highly rated in the national development plans, because education is considered as the most important instrument of change as any fundamental change in the intellectual and social outlook of any society has to be preceded by an educational revolution. It is indeed, an instrument “par excellence” for effecting national development.

Education is one concept that many scholars have grappled with its conceptualization. For instance Dewey in Iyamu (2010) describes education not only as the means through which a culture is transmitted, but also the means through which it is transformed. Alumode (2013), on his own part describes education as a means by which an individual acquires the many physical and psycho-spiritual capabilities demanded by socio-cultural environment within which one is groomed to live and function. It is a process of socialization by means, which the individual is taught those norms, values, attitudes and skills that are desirable in the society.

One thing is significant in the educational processes, that is; the emphasis on cultural and inherent values that need to be perpetuated for the survival and continuity of the society. Educational functions are therefore defined in relation to the cultural value system of the society as a reflection of the needs and aspirations that can be promoted through the educational process. Indeed, in Nigeria and perhaps most other Less Developed Countries (LDCs) today, the searchlights of the societies have remained focused on the radical roles of school system. This is in recognition of the radical roles schools are expected to play in the process of national development. The school system becomes an avenue through which societies educate their younger generations so as to enable they achieve their personal goals and objectives and that of the societies at large.

The university education is one aspect of tertiary education through which culture is transmitted, but also the means through which it is transformed. One of the objectives of university education is the acquisition of both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society. Alimba (2018) opined that university education is an important form of investment in human capital. It can be viewed as a high level or a specialized form of human capital, contribution of which is very significant to economic growth in any society. In addition, the university has an inalienable right, indeed a responsibility, to protect itself, the numerous students entrusted in its care, staff and other internal and external customers who visit the universities from all forms of danger that assail the institution daily as a matter of course. However, in spite of the aforementioned importance of university education in societal development and cultural transformation in Nigeria, the sector has been bedeviled by many woes. One of these woes of the university sector in recent times as been the problem of security.

Ibrahim in Adejoju (2016) defined security as a stable, relatively predictable environment in which an individual or a group may pursue its aims or objectives without disruption, harm, danger and without fear of disturbance or injury. Alemika (2017) described security as the absence

of threats to (a) the sovereign powers and territorial integrity of a nation; (b) the capability of a country's government; (c) safety of the person and property of citizens, and (d) freedom of citizens from oppressive rule, economic exploitation, discrimination and exclusion, diseases, homelessness, starvation, ignorance and illiteracy, environmental degradation and all other forms of structural and criminal violence. Thus, security in a university system connotes the protection of tangible and intangible assets of the institution from all forms of danger. Tangible assets refers to physical structures, the books in the libraries, the electronic gadgets in the departments, all the stake holders and the players, the regular and occasional visitors to the university and lives of both students and personnel of the university. Intangible assets on the other hand include intellectual property, research data, classified information, integrity, peace of mind, order and above all, the image of the university system.

Adejoju (2016) in her survey of some Nigerian universities and their security departments found out that huge financial commitments have already been made by the various universities in the procurement of security equipment, particularly in the area of access control, a critical aspect of security coverage. Despite these huge financial commitment, the university system has been faced with series of security challenges. Some of these campus security challenges include cultism, students' union violence, drug abuse, violent crimes like armed robbery, illicit sexual escapades, killing of innocent students, academic and non-academic staff, arson, rape, extortion, threats, physical attacks, kidnapping, blackmail and other inhuman practices. One veritable tool for combating these security challenges in our university campuses is the use of various modern Information and Communication Technology (ICT) facilities.

Information and communication technology is a term used in describing a process of giving and getting information through the use of technologies like computers, internets, mobile phones and other communication networks. It includes all the technologies that help in disseminating and using information by individuals and institutions. According to Adelakin (2009), Information and Communication Technologies are those items which includes equipment known as (hardware) and programmes, known as (software) that allow people to access, organize, manipulate, retrieve, store, share and present information through electronic means. It must be emphasized at this juncture that there exist various ICT facilities that could be utilized for enhancing university campus security in South-south, Nigeria. These ICT facilities include Close Circuit Television (CCTV), Surveillance cameras, Detecting Devices, Geographical Positioning System (GPS)-enables devices, Satellite Imagery, Automated Personal Data Bank, Data Mining and Database Tracking Systems and so on (Yakubu, Mohd & Abdulkadir, 2018). A number of these facilities are briefly discussed hereunder.

Geographical Positioning System (GPS) is used to determine the precise location of a vehicle, person and other assets that can be used in carrying out criminal attacks. The recorded data location is either stored within the tracking unit or sent to a designated database for review. The Automated Personal Data Bank (APDB) is used as dedicative devices and databases to collect and store the detected data and personal information about citizens and immigrants that can allow the security system to track individual information including suspected terrorist groups (Alemika, 2017). The APDB records can contain digital images, fingerprint, insurance details and vehicle registration in order to assist in monitoring citizens' activities by governments' security

departments and agencies like Department of State Security Service (DSSS) and Security Intelligence Department (SID). Detecting Devices (DD) are devices used to detect the presence of explosive object in person or vehicle. Close Circuit Television (CCTV) cameras are used to detect criminal and terrorist activities and to watch crime execution. There is no doubt that the availability and utilization of these ICT facilities in checkmating violence and crimes would go a long way in enhancing university campus security. In fact, these ICT facilities need to be available and fully utilized so as to enhance university campus security.

According to Joseph and Philias (2011), availability is defined as general characteristic of a resource that is committable, operable, or usable upon demand to perform its designated or required functions. Availability according to Ibrahim (2007) is defined as the condition of being obtainable or accessible at a particular point in time. It is an expression of how a material can easily be gotten and used for a particular purpose and time. Thus, to enhance effective university campus security, ICT facilities must be adequately available and fully utilized.

According to Dogo (2008), utilization is a noun form of the adverb 'utility' which means the act or process of using a particular thing, idea or method for the actualization of a purpose. Utilization of resources refers to the equitable use of resources accruable to an enterprise especially in the education industry for effective implementation of school curriculum. Utilization of ICT facilities for the sake of enhancing university campus security requires security operatives' technical competence on how to utilize the facilities. It is on this basis that Ogbuegbuna-Okwenu (2008) opined that technologies do not on their own achieve any meaningful values without being effectively utilized.

One influencing factor in the context of availability and utilization of ICT facilities for enhancing university campus security is ownership of institution. In Nigeria, some institutions are owned by the federal or state government and even private organizations and individuals. For the purpose of this study, the federal and state-owned institutions are the focal point. Wagner, Hassanein and Head (2008) pointed out that the availability and utilization of school resources, ICT facilities inclusive in institutions are influenced by budgetary factors in a country which could make the procurement of facilities difficult or easy as the case may be. Availability of ICT facilities for combating security challenges might differ just as the utilization in the various universities. The federal and state governments-owned universities may differ in the quality of ICT facilities provided for combating security challenges in the university campuses. This is so in Nigeria as the federal universities are better funded than state owned. Thus, considering ownership of institution in this study may yield practical results. It is obvious that the success of the university administrators in South-South, Nigeria to effectively combat there ever-increasing security challenges militating the system is dependent on the availability and utilization of modern ICT facilities by the security operatives of the institutions. It is against this background that this study on availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria was undertaken.

Statement of the Problem

One of the aims of using ICT facilities in any instruction be it education or otherwise is to improve institutional efficiency. The management of security challenges in the university campuses is expected to be driven by appropriate and adequate ICT facilities. Unfortunately, the

management of security challenges in the universities in Nigeria seems to be ineffective in terms of lack of provision of adequate ICT facilities (Nweke & Nwachukwu, 2014). Adejoju (2016) in her survey of some Nigerian universities and their security departments found out that huge financial commitments have already been made by the various universities in the procurement of security equipment, particularly in the area of access control, a critical aspect of security coverage. Adejoju lamented that despite these huge financial commitment, the university system has been faced with series of security challenges such as cultism, students' union violence, drug abuse, violent crimes like armed robbery, illicit sexual escapades, killing of innocent students, academic and non-academic staff violence, arson, rape, extortion, threats, physical attacks, kidnapping among others. The consequence is that the universities are faced with the problems of producing graduates who are worthy in character and learning needed for societal development.

Adejoju attributed the inability of the university to curb the ever-increasing security challenges in the campuses to poor provision and utilization of modern ICT facilities by the university security operatives. Similar situation may be obtainable among the universities in South-South, Nigeria where campus security issues are increasing at an alarming rate. The availability and extent of utilization of ICT facilities by the security operatives in this region is not clearly known, hence the problem of this this study focuses on determining the availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria.

Purpose of the Study

The major purpose of the study was to determine the availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria. Specifically, the study determined the:

1. ICT facilities available for enhancing university campus security in South-South, Nigeria.
2. Extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria.

Research Questions

The following research questions guided the study:

1. What ICT facilities are available for enhancing university campus security in South-South, Nigeria?
2. To what extent are ICT facilities utilized by security operatives for enhancing university campus security in South-South, Nigeria?

Hypothesis

The following null hypothesis was formulated by the researcher and was tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria.

Method

This study adopted a descriptive survey research design. The descriptive survey research

design, according to Nworgu (2015), is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group using questionnaire or interview. The researcher considered this design appropriate for this study since it used a questionnaire to collect data from university security operatives on the availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria. The population for this study comprised 1,520 security personnel from the 12 government-owned universities in South-South, Nigeria. A total of 456 security personnel were sampled using the proportionate stratified sampling technique. The instruments for data collection were a Checklist on “Availability of ICT Facilities for Enhancing University Campus Security (CAICTFEUCS)” and a five-point rating scale questionnaire titled “Utilization of ICT Facilities for Enhancing University Campus Security (UICTFEUCS)”. The checklist has 10 items. The questionnaire has two main sections; A and B. Section A contains one item on ownership of respondents’ institutions while Section B has 10 items structured on a five-point rating scale of Very Highly Utilized (VHU), Highly Utilized (HU), Moderately Utilized (MU), Lowly Utilized (LU) and Very Lowly Utilized (VLU). The instruments were validated by three experts. Method of internal consistency was used to determine the reliability of the instrument using Cronbach Alpha with SPSS and reliability coefficients of 0.75 and 0.78 were obtained for the two instruments with an overall reliability coefficient of 0.77. A total of 456 copies of the questionnaire were administered to the respondents with the help of three research assistants within a period of two weeks. Out of the 456 copies of the instrument administered to the respondents, 433 copies representing about 96 percent were successfully retrieved and used for data analysis. Frequency counts and percentages were used to analyze data related to research questions 1 while mean and standard deviation were used to answer research questions 2. T-test statistic was used to test the null hypothesis at 0.05 level of significance. Any item with 50 percent and above is considered available while those below 50 percent were considered not available. Mean and standard deviation were used to answer research question 2 and to determine the closeness of the respondents’ means. Decision on the research question 2 was based on the cluster mean relative to the real limits of numbers as shown below:

Response	Rating Scale	Real Limit of Numbers
Very Highly Utilized (VHU)	5	4.50 - 5.00
Highly Utilized (HU)	4	3.50 - 4.49
Moderately Utilized (MU)	3	2.50 - 3.49
Lowly Utilized (LU)	2	1.50 - 2.49
Very Lowly Utilized (VLU)	1	1.00 - 1.49

A null hypothesis was rejected where the calculated p-value was less than the 0.05 level of significance, it meant that there was a significant difference. Conversely, where the calculated p-value was greater than or equal to the level of significance (0.05), it meant that there was no significant difference and the hypothesis was not rejected.

Presentation and Analysis of Data

Research Question 1

What ICT facilities are available for enhancing university campus security in South-South, Nigeria?

Table 1:
Percentage scores on availability of ICT facilities for enhancing university campus security in South-South Nigeria (N= 433).

S/N	Items on ICT Facilities	Available		Not Decision		Available
		Freq	(%)	Freq	(%)	
1	Close Circuit Television	213	49.19	220	50.81	Not Available
2	Surveillance cameras	210	48.50	223	51.50	Not Available
3	Detecting Devices	180	41.57	253	58.43	Not Available
4	Mobile Phones	310	71.59	123	28.41	Available
5	Satellite Imagery	148	34.18	285	65.82	Not Available
6	Automated Personal Data Bank	114	26.33	319	73.67	Not Available
7	Internet Services	315	72.25	118	27.25	Available
8	Data Mining and Database Tracking Systems	178	41.11	255	58.89	Not Available
9	Social Networking Tools	298	68.82	135	31.18	Available
10	GPS-enabled Devices	158	36.49	275	63.51	Not Available
Cluster %				49.00	51.00	Not Available

Data in Table 1 shows that only three of the 10 ICT facilities listed are available while the rest are not available for enhancing university campus security in South-South Nigeria. The cluster percentage shows that ICT facilities are not available for enhancing university campus security in South-South Nigeria with percentage score of 51.00 against the available with percentage score of 49.00.

Research Question 2

To what extent are ICT facilities utilized by security operatives for enhancing university campus security in South-South, Nigeria?

Table 2:

Respondents' mean ratings on the extent ICT facilities are utilized by security operatives for

enhancing university campus security in South-South, Nigeria (N= 433).

S/N	Items on ICT Facilities	Mean	SD	Decision
1	Close Circuit Television	3.15	0.45	Moderately Utilized
2	Surveillance cameras	3.20	0.56	Moderately Utilized
3	Detecting Devices	2.80	0.64	Moderately Utilized
4	Mobile Phones	4.20	0.40	Highly Utilized
5	Satellite Imagery	2.20	0.70	Lowly Utilized
6	Automated Personal Data Bank	2.35	0.60	Lowly Utilized
7	Internet Services	4.25	0.40	Highly Utilized
8	Data Mining and Database Tracking Systems	2.56	0.75	Moderately Utilized
9	Social Networking Tools	3.65	0.50	Highly Utilized
10	GPS-enabled Devices	2.30	0.65	Lowly Utilized
	Cluster Mean	3.07		Moderately Utilized

Data in Table 2 shows that the cluster mean is 3.07 which indicates that available ICT facilities are moderately utilized for enhancing university campus security in in South-South Nigeria. The standard deviations for all the items are within the same range showing that the respondents are not wide apart in their ratings.

Testing the Hypothesis

There is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria.

Table 3:

Summary of z-test result of the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria (N= 433).

Ownership of institutions	N	\bar{X}	SD	α	Df	t-cal	P-value	Decision
Federal	248	2.09	0.12	0.05	231	0.58	0.62	Not Significant
State	185	2.18	0.16					

Data in Table 3 shows that there is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria with mean scores of 2.09 and 2.18 while the corresponding standard deviations are .12 and .16. The Table indicated a t-value of 0.58, at degree of freedom of 231 and a p-value of .062. Testing at alpha level of 0.05, the p-value is not significant, since the p-value is greater than the alpha value (0.05). Therefore, the null hypothesis was not rejected.

Discussion of Findings

Findings of the study revealed that ICT facilities are not adequately available for enhancing university campus security in South-South, Nigeria. These ICT facilities included CCTV, surveillance cameras, satellite imagery, detective devices, GPS-enabled devices and so on. This is in agreement with Yakubu, Mohd and Abdulkadir (2018) who posited that Nigerian security issues are getting more disgusting despite the government efforts and those of the security agencies to end the menace. The authors attributed this inability of Nigerian security operatives to tackle the menace of insecurity in the country to non-availability of modern technological facilities such as surveillance cameras, social media platform, telecommunication system and other ICT technologies. Thus, there is the need for government, the universities' administrators and other relevant stakeholders in education in Nigeria to ensure that modern ICT facilities are made available and adequately provided so as to enhance effective campus security in the universities in South-South, Nigeria.

The findings of the study revealed that available ICT facilities were moderately utilized for enhancing university campus security in South-South, Nigeria. This finding is in agreement with Alimba (2018) who opined that growing challenge of security in Nigerian universities is as a result of low use of ICT-driven tools by the institutions' security operatives. Also, Adejoju (2016) asserted that the inability of university security operatives to combat security challenges in the university system is attributed to low utilization of modern technological devices as are obtainable in advanced countries. The findings of the study also revealed that there is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria.

Conclusion

Based on the findings of this study, it is concluded that the availability and extent of utilization of ICT facilities for enhancing university campus security in South-South, Nigeria is not adequate for combating security challenges in the university system. Therefore, there is need for

all relevant stakeholders in university education system to ensure that ICT facilities are adequately provided and utilized in the quest for curbing myriads of criminal activities that have become a clog to progress and development of the university system and the nation at large.

Recommendations

The following recommendations were made by the researcher based on the findings of the study:

1. The Nigerian government and the university administrators should train the campus security personnel on the utilization of various modern ICT facilities. This is to enable them become fully competent and completely equipped to utilize the ICT facilities in combating various campus-related crimes, thereby protecting the lives and properties within the university community.
2. The security department should organize regular security awareness programmes for all stakeholders and players alike who live or work in the university, even up to the domestic servants as they also have vital roles to play in the security of residential areas.
3. Efforts should be stepped up in the acquisition of more modern security technological aids to support the performance of the security department.
4. The governments, both Federal and State and other owners of the universities and the industries should show more economic concern in matters of campus security as the universities alone cannot possibly fund all the emerging demands in this regard.

REFERENCES

- Adejoju, O. J. (2016). Combating security challenges in the university system. A paper presented at the national conference of the Association of Nigeria University Professional Administrators (ANUPA, 2016).
- Alemika, E. E. O. (2017). Security challenges and university system in Nigeria. Retrieved from www.researchgate.com
- Alimba, C. N. (2018). Security and security measures for schools operating in domains prone to insurgency in Nigeria. *International Journal of Public Administration and Management Research*, 4(3), 36-48. Retrieved from <http://www.rcmss.com/index.php/ijpamr>; www.academix.ng
- Alumode, B. E. (2013). Education for national transformation: Institutional innovations, challenges and prospects. *Unizik Orient Journal of education*, 7(1), 2-29.
- Dogo, B. (2008). Distribution pattern and status of educational facilities and its policy implication in rural areas of Jos, Plateau State. *The Nigerian Teachers Today*, 4 (2), 16-20.
- Federal Republic of Nigeria (2013). *National policy on education*. Lagos: NERDC Press.
- Ibrahim, I. (2007). Nigeria: A divided country. *Newswatch*, 53 (18), 19-22.
- Iyamu, O.S. (2010). *Introduction to curriculum studies*. Benin City: Metro Publishers Limited.
- Joseph, S.O. & Philiat, O.Y. (2011). School facilities and academic achievement of secondary school agricultural science in Ekiti State Nigeria. *Asian Journal of Social Science*, 7(7), 64 – 70
- Nweke, P. O. & Nwachukwu, T. S. (2014). National security issues and challenges in Nigeria: Which way forward? *International Journal of Youth Empowerment and Entrepreneurship Development*, 1(1), 97-106. Retrieved from <http://www.ijyeedjournal.com>

- Nworgu, B. G. (2015). *Educational research: Basic issues and methodology*. Owerri: Wisdom Publishers.
- Ogbuegbuna-Okwenu, J. (2008). Teachers' perception of tutorial staff requirement of introductory technology programme in Anambra State. *Journal of Technical Education Research and Development*, 1 (1), 57-68.
- Wagner, E., & Hassanein, U.E., & Head, A. (2008). *Using computers in schools. Digital opportunitiesfordevelopment*. Retrieved from http://learnlink.aed.org/publications/sourcebook/chapter4/computers_in_schools_modelfuse.pdf.
- Wokocha, A. M. (2012). Education, leadership and human resource development for today's world. *International Journal of Education Research and Development* 4(1), 1-12.
- Yakubu, Y. S., Mohd, A. U., & Abdulkadir, S. B. (2018). Confronting Nigeria's security challenges through information and communication technology: Way forward to terrorism. *International Journal of Advanced Academic Research, Sciences, Technology & Engineering*, 4(6), 120-132.