

Information Management Agenda 2030

PERSPECTIVES OF SUSTAINABLE DEVELOPMENT GOALS

A Festchrift in Honour of Professor Felicia
Edu-uwem Etim at 60

Edited by

Teddy Charles Adias
Ahiaoma Fintan Ibegwam
Inyang Mbong Udofot
Donald Obama Hamilton



Academic Records Management System Application and Maintenance of University Students' Records for Sustainable Economic Development

Professor Felicia E. Etim & Godswill Okon Ph.D

Abstract

Academic records are very vital records generated from learning institutions especially universities. These sets of records if not properly maintained can cause a pressing hardship and heartache to the institutions and the students, even the nation at large. The introduction of Academic records management systems now makes the work of maintaining these academic records even easier and cost effective. ARMS is an automated system that is used to maintain academic records in universities, it comes to perfect what is done manually before now. This paper examines how the application of ARMS in maintenance of students' academic records can help in the sustainability of economic development goals which are properly highlighted in this paper. Features of ARSMS were captured; advantages of ARMS were exposed, factors that militate against ARMS were raised and statistics of Universities that use ARMS in south-south Nigeria were used to know how much ARMS is used in Nigerian universities. Recommendations were made that would help ensure improvement of use of ARMS in universities which would also ensure Sustainable Development Goals.

Introduction

Records are very important documents in any establishment. It refers to recorded information, regardless of form or medium, received and maintained by an agency, institution, organization or individual in pursuance of its legal obligations or in the transaction of business of any kind (Isah, 2009). This information being very important has to be mindfully kept in order to remember what was done at any point in time. This is important because human memory has a limit to what it can retain and recollect accurately.

Universities create, use and maintain a whole lot of records, most of which are academic records, hence the need for an Academic Records Management System (ARMS). ARMS are software developed and also used to manage all academic records electronically in an academic institution. This system creates fields to digitally manage all information pertaining to a student's academic activity ranging from bio-data, registration details, lecture details, continuous assessments and examination results; cumulative grade point average, transcripts, certificates etc. (Gary, 2014). All these vital academic records though still maintaining their original format or paper base are important and should be managed electronically to forestall misplacement, damage, theft or any other mishap. Other terms for it include, "student information system", "student records management system" and "academic information system", they all perform the same function.

The National Archives Decree (1992) of the Federal Republic of Nigeria, has provided an all encompassing definition of records as: all papers, registers, printed materials, books, plans, maps, photographs, microfilms, cinematographic films, sound

recording or other documentary materials regardless of physical forms or characteristics made or received by public or state office or by business houses or companies, private bodies and individuals in pursuance of their legal obligations or in connection with the transaction of their proper businesses. Similarly, Usanga, (2007) submitted that records could be any information or communication captured and retained in some reproducible media. Records in this case become the object, the document or medium which carry the information. Records therefore, are information media created and valuable enough to be retained.

In Nigeria, most records are believed to be paper-based. This means that the information is captured on paper. However, the media for information carriage can also be in other forms like machine readable disks, graphics, images, diskettes, flash drives, data bases, other virtual formats and pictorial media, be they photographic or not. Records are important historical and legal tools and are necessary for the smooth running of an institution. To recreate them in the event of a total loss would cost millions of naira. The loss of university's records or even a part of them could destroy the evidence of students' achievements, staff entitlements and jeopardize a university's rights and interests. For instance, there was an incident in the University of Uyo on June 12, 2012 when the records unit of the university was partially raised down by fire, a lot of students' records were completely destroyed and there was no possible replacement. This is an example of a great and costly loss that could possibly occur to both the university and the affected students. Such records were difficult if not impossible to be traced and recovered.

Maintenance of University Academic Records

Academic activities in a university cannot be complete without students and lecturers. As a matter of fact, they are the embodiment of academic activities in universities and all they generate officially forms academic record (Okon, 2014). Students produce most of the academic records ranging from students' course records, students' registration records and students' result records. At first, the students have to know the various courses offered by a particular university even before applying to study such a course. They also have to keep abreast of the various facts that make up the course like course description, course lecturers, venues, outline, and courses to be taken next, etc. All these are very vital information and are part of the records to be kept. Students' registration records are also very important records because after knowing the courses, they also register them, the students also do their personal registration and all these facts have to be properly filed, kept and managed for future use. Students' results are equally generated and they are very delicate data that should be guarded and given proper care because the results later transform to transcripts and certificates which is the sole reason they pursue a university degree to guarantee their future.

Records management in developing countries, and indeed Nigeria according to Atulomah (2011) is yet to attain the level of attention and support that it has received in countries of the developed world. The foregoing seems to point to the need for a sound Academic Record Management System (ARMS) in our higher institutions. Okwilagwe and

Njoku (2002) agree that the development of ARMS in Africa is due to certain inhibitive factors such as poor infrastructure, ill-trained personnel to handle equipment and absence of management information system (MIS) based policy. The above is in line with Isah (2009) who identified the afore mentioned as requirements for an efficiently based MIS at the tertiary education level. A Records Management System (RMS) was necessitated out of the fact that there were difficulties in organizing, managing and accessing records. Automating records was now considered as a panacea to several problems of losing and misplacing records. A very good records management system need to possess all the sterling characteristics that enables it carry out desirable functions. These characteristics form the indices that would be used to evaluate its use in maintenance of students' records. Such attributes may include accuracy (completeness and consistency), timeliness, security, cost benefit, availability, implementation, flexibility, effectiveness, conversion, storage and ease-of-use. With all these features of a good academic records management systems (ARMS), it will aid the proper maintenance of records which will in turn help in the sustainability of economic development in Nigeria because these academic records are vital document used for the development of the nation.

Features of ARMS

Accuracy: ARMS has accuracy as part of its characteristics, it ensures that processed, saved and maintained records are accurately presented when ever needed. Accuracy and completeness of record is very important as a record that is neither accurate nor complete cannot be useful. Records being very delicate and important documents have to be accurate, complete and consistent so that it can be useful, informative and can solve problems. It also has to be understandable and put the user in the right perspective. Chand (2016) notes that accuracy and completeness, points to the fact that it should contain all the information necessary for the decision maker to satisfactorily solve the problem at hand using such information and that nothing important should be left out. Every record retrieved today should be the same if retrieved again in 5 years. If this is not the case, it is not then a record. Accuracy in this context also has to do with properly classifying the records, retention scheduling, completeness, quality, relevance, variability, comprehensiveness, compliance and effectiveness of the records

Timeliness: Another characteristic of ARMS is ensuring academic records are quickly provided without time wasting. This is in line with Ranganathans' 4th law of Library science which is "save the time of the user". The time of the user is of immense economic importance and should not be wasted when the academic records are needed. Timeliness of records cannot be played low because there is always a reason before any record is required and most times, there is time frame for such records to be used as ARMS requires timeliness. Iguodala (2009) posits that records must be delivered at the right time, at the right place and to the right person. Premature information can become obsolete or be forgotten by the time it is actually needed. Also, some crucial decisions could be delayed resulting in the fact that proper and necessary information is not available on time thereby

resulting in missed opportunities. Timeliness is a measure of how responsive the information system is in providing information at the time it is required.

Availability: Availability of records is another important attribute of ARMS. Academic records must be available whenever it is needed. There should be no issue of records stored but not available when needed. Chand (2016) noted that Information may be useless if it is not readily accessible in the desired form, when needed. Availability also has to do with accessibility, records storage and conversion, records retention, disposition and transfer. Advances in technology have made information more accessible today than ever before. Therefore, every entity has to advance with the present technology in order to serve better and on time.

Cost benefit: this is yet another very important issue to always consider in managing students' academic records. Every record is so costly to acquire and organized, as such, care should be taken so as not to allow too much money to be spent on getting records. ARMS are costly to acquire but in the long run, it saves a lot of cost. According to Iguodala (2009) information is not desirable if the solution is more costly than the problem. The cost of gathering data and processing it into information must be weighed against the benefits derived from using such information. So with the use of ARMS in maintaining students' academic records it cut cost of going to gather lost or damaged records and using ARMS is not as expensive as losing the entire students' academic records which can affect a students' life and the nation at large.

Security: this is a very critical aspect of academic records and ARMS. The system used has to be secured and devoid of unauthorized access or forgery. ARMS endeavors to secure academic records which are very delicate documents from unwarranted and indiscriminate access. Academic records also have to be secured from theft, destruction, infection and forgery. Security of academic records also involves disaster prevention, recovery and maintenance of students' academic records. If any of such happens then there is mutilation of records and such record is rendered invalid. Appropriate protection is required for all forms of records, paper or electronic, in order to ensure business continuity and efficiency, and avoid breach of statutory, regulatory or contractual obligations.

Ease-of-Use: ARMS is also very easy to use and it can be very attractive and interactive so as to guide the user to easily use it in accessing academic records. Ease-of-use according to ISO (2016) is the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use. This definition can be expanded, and made more comprehensive, by including five characteristics which must be met for the users of a product which include Effective, Efficient, Engaging, Error Tolerant and Easy to Learn. Understanding of the five characteristics (5 E's) of ease-of-use which help and guide the user-centered design tasks to the goal it is designed for.

Advantages of Using ARMS Application to Maintain Academic Records

1. It saves time
2. It is less stressful in maintaining academic records compared to traditional style

3. It is economical to use as it reduces manpower involvement as computers are used and it also reduces expenses which would have been incurred should the records be damaged or lost.
4. It is secured, in that, academic records are not mutilated, forged, destroyed by fire or water nor lost.
5. It ensures academic records are always available
6. It ensures accuracy of academic records
7. It reduces health hazard like exposure to dust and climbing/lifting heavy documents which is associated with the traditional style of maintaining academic records
8. It is very flexible as academic records can easily be processed and converted into other electronic formats like PDF, power point, sent through mails, saved in other devices etc.
9. It makes the users and staff members to be smart workers and make them to achieve more results faster
10. It helps students monitor their CGPA, graduate on time, get their transcript across to appropriate quarters on time and saves money
11. It is an effective managerial decision tool and aids fast decision making

ARMS and its Contribution to Sustainable Economic Development

Sustainable economic development has become the issue to talk about in modern day Nigeria and the world at large as we seek to ensure we have a developed Nigeria in no time. Sustainable economic development is important for economic growth, because it does not take into consideration the pleasure of present generation alone but it also takes into consideration the requirements of future generation.

The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The 17 Goals are all interconnected, and in order to leave no one behind, it is important that we achieve them all by 2030. (United Nations, 2020).

ARMS helps in the maintenance of students' records which in turn help to reduce hardship and poverty in the lives of students and associates. It fits into the SDG of quality education, poverty alleviation, decent work and economy growth, industry, innovation and infrastructure, peace justice and strong institution. So, implementing ARMS in all Nigerian universities would help in the sustainable development of education and other areas of life.

Specifically, ARMS can contribute to the sustainable development of an economy through the following ways;

1. It ensures safety of time in processing of academic records. In other words, the institutions and the individuals' time is saved. The more time used in any activity the more money expended and the more stressful the situation. So ARMS really help in saving time thereby saving money and also help in development
2. It reduces the stress of going through hip of files to check for academic records there by allowing the users to channel their efforts and energy in other profiting activities.

3. Its security of academic records helps to ensure that moneys are not spent to recovering damaged or lost academic records.
4. It helps reduce the health hazard associated with the use of papers and file cabinet like dust, climbing and lifting of heavy files etc. it helps to reduce frequent visit to hospitals and taking of medications.
5. It helps increases the standard of education in the country by ensuring qualitative service delivery.
6. It helps reduce poverty especially when an academic transcript is needed for employment of further education within a stipulated short time. ARMS will make quick submission possible and the opportunity not lost.

Statistics of Universities that use ARMS in South-South Nigeria

In a research conducted by Okon (2019) on Evaluation of academic records management systems application in maintenance of students' academic records in South-south Federal Universities, the use of ARMS in the various federal universities was revealed as follows;

S/N	UNIVERSITY	HA	MA	LA	NA
1	UNIUYO		√		
2.	UINCAL			√	
3.	UNIPORT			√	
4.	FUOTUOKE		√		
5.	FUPRE		√		
6.	UNIBEN			√	

Keys: HA- High Application, MA- Medium Application, LA-Low Application, NA- Not Applied

From the table above, it is observed that out of the six federal universities in the south –south geo-political zone of Nigeria, none of them has a High application of ARMS in maintenance of students' academic records which is very poor. Three universities do Medium application while the three other universities do Low application. This reveals we are still lacking behind in digital management of our academic records in our universities which will not enhance nor sustain the economic development of our society and Nigeria as a whole. The universities that apply ARMS in a medium scale are those who use ARMS to maintain academic records but still have some observed deficiencies like not saving the records in the cloud, not preparing and sending transcript with it etc. but those with low application either contract it out or only do online registration but don't use it to prepare results and save results for retrieval when needed. So this shows that as a country we still have more work to do in other to get to the required level.

Factors Militating against Application of ARMS

Some of such indices that hinder universities from applying ARMS in maintenance of her students' academic records as noted by Okon (2019) are;

1. Poor funding
2. Poor power supply
3. Lack of experienced personnel
4. Improper arrangement for training and retraining of personnel
5. Attitude of workers towards such new introduction as a result of ignorance
6. Lack of awareness
7. Poor maintenance culture
8. Poor infrastructure like machines, databases, backup systems and networks
9. Administrative bottle necks and bureaucracy like poor decision making techniques
10. Corruption, where money is disbursed to set up the system but it is misappropriated

Conclusion

In this 21st century, Universities need to be encouraged to step up with the technological and developmental trends in the world to key into a sustainable means of developing our society and economy of which maintenance of students' academic records digitally is one of such ways. Gone are the days where academic records are maintained manually only, with the introduction of ICT manual operations are digitized and operations are carried out faster and easier than it ever was.

Recommendations

1. The National Universities commission should make it part of her institutional accreditation to ensure all universities in Nigeria are ARMS compliant.
2. University personnel should be exposed to trainings that would make them understand the workings of ARMS
3. Further studies should be carried on application of ARMS in states and private universities
4. There should be more training on digital records management and information conservation/ preservation in the library schools at all levels.

References

- Atulomah, B.C (2011). Perceived Records Management Practice and Decision-making among University Administrators in Nigeria. *Library Philosophy and Practice*. 7(3) [Http://unlib.un/.ed/lpp](http://unlib.un/.ed/lpp) (Retrieved on 9th September, 2017)
- Chand, P. (2016). *The Design of a Pair of Identical Mobile Robot to Investigate Co-operative Behaviours*. Widney Publishers, Carin Verd, 321p.
- Gary, L. (2014). "What it takes to keep student information safe in the digital age". The Evolution. <http://www.evolution.com/opinions/audio-takes-students-information-safe-digital-age>. (Retrieved on February 14, 2017).

- Iguodala, W.A. (2009). Records in Educational Management for Sub-Saharan African. *Dimensions of Education Series No 2*. Nigerian Society for Educational Planning (NSEP).
- International Standard Organization (2016). *Measuring standards of systems used in industries*. Uplong Press, New jersey. 511p.
- Isa, E. A (2009) *Institutional Records Management Analysis of Students Academic Records: A Case Study of the University of Ibadan*. M.Ed. Dissertation. University of Ibadan, Ibadan, Nigeria, 131p.
- National Archives Decree (1992). Decree No. 30, Federal Government of Nigeria. Ministry of Information, Lagos, p.21
- Okon, G.U. (2014). *Management variables and acquisition of information resources in Universities of Uyo and Port-harcourt Libraries*. MLIS Dissertation. University of Uyo, Nigeria. 102p.
- Okon, G. U. (2019). Evaluation of academic records management systems application in maintenance of students' records in federal universities in south-south Nigeria. PhD Thesis, University of Uyo, Nigeria. 120p.
- United Nations (2020) Sustainable Development Goals. Retrieved 14th January 2020 from www.un.org/sustainabledevelopment/sustainable-development-goals.
- Usanga E. E. (2007). Records Maintenance and Use in Library and Information Centres. In: Etim, F.E. and Nsien, F.N. (Editors) *Information Literacy for Library Search*. Abaam Publishers, Uyo, 220p.
- Okwilagwe, A. O. and Njoku, I. F. (2002). Availability and Accessibility of ICTs to Nigerian Publishers for Book Marketing Business. *African Journal of Educational Management*, 10 (2): 45- 54.