Automation of Result Processing System for Public Secondary Schools in Obudu L.G.A: A Necessity for the Enhancement of the Secondary Education Sector.

Ibe, Walter Eyong, Dr. Undeshi, Celsus Akomaye , Adie, Julius U.

Department of Computer Science, FCE Obudu
Department of Education Foundations FCE Obudu
Department of Education foundations, FCE Obudu

ABSTRACT: Automated result processing is the use of computer application in processing results. It has lots of advantages over the traditional method of result processing. Notwithstanding, result automation also introduced other forms of challenges with result processing. This paper critically examines issues with the traditional method of result processing, automated result processing system, the advantages of automated result processing over the traditional approach, issues with automated result processing and way forward, and conclusion.
Keywords: Public, Enhancement and Automated.

I.   INTRODUCTION:

Over the days in Nigeria, the level of corruption in the educational systems was minimal. Uptill 1990, Students' who failed below average for a promotional examination were made to repeat a class. Where such failure becomes reoccurring, the students(s) are asked to change school, or change proposed area of specialization. By these times, students where very serious with their studies for fear of failure and the associated consequence(s). Certificate examination such as almighty West African Examination Council (WAEC) were written under thorough supervision of both the external and internal examiners. As such, the students' have no alternative to success except by hard work. Parents' guidance, teachers and well-wishers were all sources of encouragement to students toward hardwork. Results of the then secondary system were a true evaluation of the students' performance in any given examination.

Fortunately, the inflow of private schools which became more of business than the goal of educating the students, gradually introduced the "no fail" syndrome just to maintain numbers and make their profit at the end of the day. They went further to introduced miracle centres for certificate examinations and practiced all forms of malpractices as to encourage high number of students and candidates in their schools all for purposes of personal gain.

Gradually, students have abandon public schools with high human and material resources for private schools with lesser in most cases. The reason is simple, easy landing. Head of public schools to maintain relevance and have where to earn salary at the end of the month have equally indulge in examination malpractices to sustain the public schools and have students. The secondary education system has been so basterdized that its products can rarely fit in well in a call to duty. Ige (2013) noted that the secondary education is unique in the education sector because it is the knowledge link between primary and tertiary education. He further observed that failure in the secondary education implies failure in the tertiary as well as the labour market. Examination malpractices in most public schools has become a norm infecting the secondary education system like a virus without vaccine. So what do we do? May be to continue in the wrong practice and kill the nation, may be to legislate a law with several consequences for offenders, may be to pray to God for intervention, may be to blame the political class, and so on. It is the thinking of the researchers that the ultimate way forward is to build a system for both private and secondary schools which will not allow malpractices in the secondary schools examination.

Taiwo (1986) noted that secondary education is of great importance to the nation because it is a source of midlevel manpower production that is necessary to sustain and improve the economy, as such, should not be toyed with.
Obanya (2002) listed the objectives of secondary education in Nigeria to include;

i.   Provide an increasing number of pupils with the opportunity for education of a higher quality, irrespective of sex, or social, religious and ethnic background.
ii.   Diversify its curriculum to cater for the differences in talents, opportunities and roles possessed by or open to students after.
iii. Equip students to live effectively in our modern age of science and technology.
iv.   Develop and project Nigeria culture, art and language as well as the world's cultural heritage.
v.   Raise generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour and appreciate those values specified under our broad national aim and live as good citizens.
vi.   Foster Nigeria unity with an emphasis on the common ties that unite us in our diversity.
vii. Inspire students with a desire for achievement and self-employment both at school and in later life.

These objectives can only be achieved in an academic environments with real practice both in teaching and learning, and proper examination and result processing systems.

1.   Traditional Result Processing:

Traditional result processing has to do with the pen and paper work required in the administration of examination, collection of exams script, marking of scripts, collation of scores and preparation ofexaminees results in any given examination. This method is characterized with lots of irregularities especially when dealing with a large class, or when a class is been handled by a dubious teacher (Ibe, et al, 2020). The method is naturally challenging and paves ways for malpractices. Traditional method for result processing in 21st century should have been a thing of archive, but unfortunately for the Obudu public schools, it is the sole method for result processing. What an irony?

Beka& Beka (2015) noted that the traditional method of result processing as practiced has some weaknesses such as longer time to search students' profile, possibility of misplacing records, and vulnerability of students' records to be accessed by unauthorized person. Manual result processing as practiced in most Nigerian secondary schools are prone to many vulnerabilities and ineffective (Afiulika, Bala and Nyap, 2014). Omemu, (2015) stated that the ultimate means for assessing students' performance (examination)has become ineffective as all forms of malpractices has been introduced into the system. Nigeria secondary education in the 21st century still used the crude method of examination and result processing which pave ways into all forms of malpractices in examination and result processing.

With the level of corruption in Nigeria, especially in the education systems. Continuing with the traditional examination and result processing will spell doom for our secondary education, which will invariably spell doom for our tertiary education, and will finally spell doom for the entire nation. There is the need to rise to the occasion and put a stop to this unwholesome practice, or it will one day lead the entire system astray.

2.   Automated Result Processing:

The application of computer and information technology in administering and processing results of an examination automatically is result automation. Iweribor (2017) defined automated result processing system as a set of software programs that is designed to control the institution's storage, management and retrieval of data in a database. Automated Result Processing is automated process in the teaching/learning environment that performs all the activities of a result management system by providing the basic storage and retrieval technology (Iweriebor, 2017).

Automated result processing system sends data and receives data from Database Management System (DBMS). Records about results of students are kept permanently in the database which is safer, reliable, efficient and flexible, and capable of responding to up-coming changes in the computer and information handling, and it is also commercially viable.

Afiulika, Bala & Nyap (2014) are of the opinion that, if a result processing system exists such that once students' CA and exams scores are entered, the system will do computation automatically and presents students comprehensive results in whatever format so desired, then result processing will take a more credit outlook. The authors listed three broad areas of benefits from result automation to include; minimized human intervention in result processing, automatic facilitate management and minimizes redundancy.

Iweriebor (2017), listed advantages of results automated system to include;
1.   Saves time during the processing of examination
2.   Maintain database for course registration and examination result.
3.   References are very fast and delays can be avoided.
4.   It allows easy access to stored information.

5. Reduces the cost associated with manual result processing such as cost of labor, inventory and stationary.
6. Enhances speed of processing results.
7. Eliminate errors due to manual results processing.
8. Provides security measures to check students' mischievous act of changing mark on the result sheet.
9. It provides high level quality service development of the management which ensures that students' are not subjected to undue suffering in collection of their results.

Nnabuko et al (2013) opines that an effective measure which can improve the efficiency of the result processing system is the introduction of computerization.

3. Advantages of Automated Result Processing over the Traditional Approach.

Automated result processing is the modern approach of the 21st century and a global practice in result processing. Results being sensitive document need high technology in its processing, storage, retrieval and dissemination. This is only achievable with the integration of computer technology (ICT) in result processing. This paper highlights a few areas where automated result processing is advantageous to the traditional method to include; (Lawal, 2018).

(1) Inaccuracy: The traditional result processing system is associated with high level of inaccuracy caused deliberately and in-deliberately. Hence the traditional method of result processing is 100% human based. The integrity of such a result is the integrity of the producer of the result. As such, the result may not depict the actual outcomes of the true result due to several factors and interest. This is not so with the automated processing system which has minimal human interference.

(2) **Security of results:** The manual result processing system lacks security for results. Results are kept in files and cabinet which can be attacked destroyed, modified, etc. For automated result processing, data are kept in a database with a link and query provided to access a set of data or generate any needed information. No single individual can easily gain access to data as to cause mayhem on the students' records. Aside from this, there is always a backup as a policy which is used to correct the database incase of attack on the data by hackers or fraudsters.

(3) **Late Processing of Result:** the traditional approach of result processing being human

based works with the speed, efficiency and expertise of human. As such, it takes longer time to processed and present students' results especially in a large class. The automated result processing system is machine based with minimal human interference. As a result, once data are supplied it takes machine time to process results. This makes result processing very fast, efficient and accurate compared to the manual processing.

(4) Ineffective Results: Due to human errors in processing, the traditional method of result processing is ineffective.

Automated result processing is machine based, as such overcomes most of the errors associated with human and produce result that are effective, reliable and dependable.

(5) **Challenges with Automated Result Processing System:**

Irrespective of the applauses showered on automated result processing, it has its own challenges. According to Britanica.com. The following are issues associated with automated result processing;

(1) Job Loss: Jobs that was supposed to be done by many persons can now be done by automated system in a minimal time and with high accuracy. This becomes a threat to professionals of examination result processing as they will become redundant and unproductive and probably disengaged.

(2) High Capital Expenditure: Automated system is Web-based and utilizes modern technology. It therefore becomes imperative that any system longing for automated system must be up-to-date in technology which requires facilities and upgraded knowledge. These are all expensive. Both purchase of facilities, software, protection of facilities and software, training for induction and hosting of the result processing system in the web are all expensive.

(3) Less Flexible: Automated system is machine based and instruction based. It is not flexible as the manual processing system because, every amendment to the system must follow a set of protocols.

4. Way Forward

Automated result system does not work independent of human, it only helps in providing efficacy to the human dependent activities. Automation calls for redefinition of professionals to fit in the current trends of processing, it does not render professionals useless or unproductive. Therefore, automation is a call for redefinition of values.

Automation is cost effective for a large body of processing. Therefore, automated result processing is cost effective for a school with large number of students. It may be cost ineffective if deployed in a school with small size of students.

For flexibility, automated system should be designed to accommodate all issues that may arise on the future such that when they arise, they are equally resolved without causing any serious concern. In the design of automated system for result processing, it should be structured in such a way that addition or elimination of module(s), procedure(s) or function(s) should not be a challenge to the entire system. If this is done, then any issue that comes up in future in the cause of operating the automated result processing system can easily be developed and integrated to resolve the problem easily.

II. CONCLUSION

Examination is the core tool for assessment of performance of students for proper placement in school or labour force. The result produce from an examination becomes a guide to management body to decide the faith of the examinee. When the process of examination and result production fails, then assessment and evaluation will fail as well. The objectives of the secondary education for students will fail and the country will be left in jeopardy.

Automated result processing is one of the sure measures for processing students' results with minimal errors and with so many advantages such as timely delivery of results, reduce cost of result processing, ease teachers' fatigue of manual processing of results, etc.

Having carefully examine the advantage of automated result processing with respect to the traditional processing, this paper strongly recommended the full deployment of automated result processing system in Nigeria public secondary schools for efficiency, effectiveness and cost advantage.

REFERENCE

[1]. Afiulike, et al (2014). Design and Implementation of Result Processing system for Public secondary Schools in Nigeria. International Journal of Computer and Information Technology, 3(1).

[2]. Beka, A. P. & Beka, F. T. (2015). Automated Result Processing System: A Case Study of Nigeria University. International journal for research in Emerging Science and Technology, 2(9)

[3]. Britanica.Com. Advantages and Disadvantages of Automated System, Accessed fromhttps://www.britanica.com.technology/automation/advantages-and-

[4]. disadvantages- of- automation on 27/11/2020

[5]. Ibe, et al (2020). Automated Examination Result Processing System for Public Schools in Obudu Local Government Area. International Journal of Advances in Engineering and Management (IJAEM), 2 990, 590-599.

[6]. Ige, A. M. (2013). Provision of Secondary Education in Nigeria: Challenges and Way Forward. Journal of African Studies and Development, 5(1), 1-9.

[7]. Iweribor, E. E. (2017). Automated Result Processing System (A Case Study of University of Port Harcourt). Texila International Journal of Academic Research, 4(2).

[8]. Lawal, I. B. (2018). Development of Computerizes Students Results Processing System. International Journal of Scientific and Engineering Research, 9(4), 730-740.

[9]. Nnabuko, et al (2013). An Object Based Result Processing System. International Journal of Natural and Applied Sciences (IJNAS), 8(1 &2), 27-34.

[10]. Olanya, P. (2002). Revitalizing Education in Africa. Ibadan: Stirling-Horden Publishers (Nig) Ltd.

[11]. Omemu, F. (2015). Causes of Examination Malpractice in Nigeria Schools. British Journal of Education, 3(7), 34-41.

[12]. Taiwo, C. O. (1986). The Nigeria Education System: Past, Present and future. Lagos: Academy Press Ltd.