Stadium Management Information System. A Case Study of Dan Anyiam Stadium Owerri Nigeria

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ABSTRACT: This paper was centered on computerized stadium information management systems. It is worthy to note that the current process of information management is being operated manually and due to this procedure, numerous problems are encountered especially in the management of the crowd and ticket processing. The motivation of the software is to eliminate the manual procedures in the stadium and proper auditing is carried out in ensuring that those selling the tickets are authorized personnel. The objective of the system is to successfully implement the computerized procedure and to overcome the obstacle that would hinder the successful implementation of the system. Research methodology (practical and objective research techniques) was used to outline the way in which research was undertaken and, among other things. The new system which is the expected data provides management software and advisory services to the sports and entertainment sector; the new system was designed using Microsoft Visual Studio (2010 Ultimate) as the front end and Microsoft SQL server as the back end. This language was chosen because it is easy to read and understand. It is real time and user friendly.

INTRODUCTION

The advent of computer technology has brought relief to repetitive tasks and has helped in the better management and originations of data. Information management systems can be applied to any system that facilitates storage, management, and retrieval of data and information required for some particular application within a computer system. This makes it easier for data to be handled or managed. The stadium staffs have been finding it so difficult to manage information. For example, in the existing system where everything is processed manually, the operators find it difficult when it comes to storage, location or retrieval of information when necessary. Also, the issue of crowd control and ticketing, which is needed in events to generate income for the sector. Processing ticket for an event manually can be costly, time-consuming and waste ticket stock which is always encountered in some event due to the excess ticket processed manually. The computer system can be used in so many ways in the stadium, for example, crowd control, processing of ticket for an event, managing office files and so on. This work concentrates on the computerized ticket, crowd control, information management in the stadium and facility management. With the aid of computer system, the data will be properly managed, organized and construction of a suitable program that will help in the management of stadium.

REVIEW OF RELATED WORK

According to Oparah and Oguike (2006), they stated that computerization does not only involve computer technology consisting of only hardware and software but also the communication devices to interact and share data as well as transferring data/information from one location to another. Besides, computers can be used for keeping records and these records are always available whenever they are needed and the need of carrying office file from one place to another is eliminated; also there is no more loss of document or tempering with documents during transit as everything will be done electronically. Oparah and Oguike (2006) also stated that computers have replaced manual technology because of its ability to process large volume of data or even handle complex work (processing capability) at a very high speed. It gives out accurate result at each time except when it is fed with incorrect data, Garbage-in-garbage-out. Hence, the need for computerization is certified. Furthermore, French, (2010) states that a file is a document stored in the computer individually by name and is organized in a particular way with a well-defined structure consisting of collection of records each of which are made up of fields. More so, Lucas, (2011) commented that a typical organization has a large number of files, many of which may be stored on a computer device. These data are called machine readable because one can use computer to process them. Paper files on the other hand are much less accessible. A large organization related file as part of a database. Oparah and Oguike, (2006) defined a database as a single organization or collection of structured data stored with a minimum duplication of data items so as to provide consistent and controlled pool of data. The data is common to all users of the system, but is independent of programs that use the data. Databases are normally set up in order to meet the information needs of major parts of an organization. It is not possible to construct a database in a single operation; it is usually a built up section. During this process, it is possible to:

i. Add new “files” of data.
ii. Add new fields to record already present in the database.
iii. Create relationship between the items in the database.

A database is required to be stored on large capacity direct access devices. The usual medium is the magnetic disk. For security purposes a copy of the database may be held on magnetic tape or disk. Although to the users, the database may appear as a collection of files, data in database is organized in a more complex way than data in conventional files. Database may be classified according to the approach taken to organize the database. The classes are relational, network, hierarchical and file inversions. But this project work discusses more on relational database. Data description must be standardized for this reasons a data description language (DDL) is provided which must be compared to the declarations and processing statement in a conventional programming language. Moreover, since complex files are processed in the database, a complex software system called Database Management System (DBMS) is required to construct, expands and maintain the database. It provides the controlled interface between the user and the data in the database. It also allocates storage of data. The Database Management System maintains
indices so that any required data can be retrieved and separate items of data in the database can be cross-referenced. It also provides facilities for different types of file processing such as processing a complete file (serially or sequentially), processing required records (selective sequential or random) and retrieval of individual records. It has the function of providing security for the data in the database. Feingold, (2014) stressed that users place more emphasis on meaningful things rather than the technicalities employed in information storage and retrieval. As records are entered and stored in the systems, their contents are automatically indexed by the software so that it will be very easy for the user to find every instance of selected record. A generally conclusion drawn from this is that, the provision of suitable information and storage retrieval system, in a manner suitable for the kind of data and the information need of the user or organization is very important. Also, the data to be processed by the computer must be collected. The process of data collection then involves getting the original data, converting it from one medium to another and finally getting it into the computer. Abudullahi, (2004) defines data collection as the process involved in getting the data from its points of original. Collection starts at the services of raw data and ends when valid data is within the computer in a form ready for processing. Therefore, in processing the stadium information record, data control measures should be involved. The following such as:

i. Manual controls
ii. Data collection controls
iii. Validation checks
iv. Batch controls

All these control measures have been taken to ensure that all processed data must preserve the integrity of maintained data, delete, corrected and all reprocess of error. Rajendran & Kamalanabhan (2002) all state in their research that leadership and top management commitment is the most critical and crucial prerequisite for institutional success when implementing TQM. These researchers agree that leadership and top management commitment provide a focal point for the energies, hopes and aspirations of people in institutions where TQM is implemented.

3. DESIGN INNOVATIONS: The shapes of stadium have varied widely according to the variety of use for which they were built. Some are rectangular with curved corner, whereas others are elliptical or U shaped. The building of large stadium in 20th century has been greatly facilitated by the use of reinforced concrete, this material has made possible the construction of daring new designs that would previously have been impossible to sustain structurally.

4. MULTI PURPOSE STADIUM: Are the type of stadium designed to be easily used by multiple types of events, while any stadium could potentially host more than one type of sports or event, this concept usually refers to a specific design philosophy that stores multi functionality over specificity. It is used most commonly in Canada and the United States where the two most popular outdoor team sports grind iron football and baseball require radically different facilities. Football uses a rectangular field while baseball is played on a diamond. This require a particular design to accommodate both usually an oval.

FUNCTIONS OF A STADIUM
✓ Corporate events
✓ Conferences
✓ Trade shows
✓ Wedding and receptions
✓ Catering Services
✓ Hospitality and Corporate partnership

TYPES OF STADIUM
1. CLASSICAL STADIUM: The first Greek stadium was long and narrow in the shape of a “U” or a horseshoe. They were sometimes cut into the side of a hill as an ephidamus and at Olympiad, the site of the Olympic Games, which began there in the 8th century BCE.

2. MODERN STADIUM: The stadium for the first modern Olympiad in Athens was a reconstruction of the ancient marble stadium built by Heroes Atticus on the site of an even earlier stadium in Athens. The Olympic since that time have provided a major focal point for the development of the modern stadium concept. The stands were partly roofed and the stadium seated more than 50,000 people.
THE FLOWCHART OF STADIUM MANAGEMENT INFORMATION SYSTEM

Start

Splash Screen

Display Parent Form

Click Login

Display Login Form

Admin Or Operator?

Enter Username and Password

Is Details Correct?

NO

Display Welcome Screen

Register New Operator

Modify Operator's Account

Load Fixture

View Operator's Activity

YES

New Operator
Modify Account
Load Fixture
View Activity
Summary

END

Exit

Is Change Successful?

NO

YES

Create New Ticket

Print Ticket

Is Another Ticket?

NO

YES

First Time Login?

NO

YES

Change Password

Enter Username, Password and Category

Is Details Correct?

NO

YES

Display Welcome Screen

Create New Ticket

Print Ticket
EXPECTED OUTPUT

BRIEF HISTORY OF THE DAN ANYIAM STADIUM

Dan Anyiam Stadium is located at the corner of Owerri, Imo state capital. It is named after Daniel Anyiam, vice-captain of the first Nigeria Football team.

The stadium was completed in the year 1999 under the leadership of the then Military Governor of Imo State, Col. Tanko Zubairu.

Its carrying capacity is about 10,000 spectators, and it is currently used as a home ground of Heartland Football Club of Owerri.

TATION OF A STADIUM INFORMATION MANAGEMENT SYSTEM

CREATE NEW TICKET

ID 7726
Logged in as Nkeiru Madu
Category VIP
Customer Name
Fixture Nig Vs Brazil
Submit Exit

Powered by heavenson
SUMMARY, CONCLUSION AND RECOMMENDATION

SUMMARY:
According to our paper topic, it is justified that computer can be employed to process data related to STADIUM MANAGEMENT. With this software, the management of the stadium can easily get achieve the following;
- Total Attendance in a Match
- Accounting Information
- Staff Records
- Maintaining security system.
- Filling /access system
- Updating /maintaining system for fans and staff (detection, update and insertion operation)
- Records outputs in the form of soft copies and hard copies with respect to achieving these outline above, the paper narrows concentration down to the customers.

RECOMMENDATION
Therefore, computerization should be used in running the daily activities of data processing (as per records) in the stadium. In this order we recommend this new system to Dan Anyiam Stadium to be used in keeping records.

CONCLUSION
Computerization at large is ideal and effective towards solving today data processing problems with indent analysis of vast activities of computerization covered in this paper, despite the limited time frame, the institution can discover it an easy task, processing records.

REFERENCES


