CORRELATES OF INFORMATION AND COMMUNICATION TECHNOLOGY USAGE AMONG SPORTS MANAGERS IN NIGERIA

BY

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CERTIFICATION

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DEDICATION

This work is dedicated to Almighty God the father, Jesus Christ that have mercy on my life and Holy Spirit my comforter that made it possible for me to see the light of the day. To Him be the Glory, Honour and Adoration. Amen.

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ABSTRACT

Sports management in Nigeria has a diverse range of Information and Communication Technology (ICT) needs, which include instant replays, headset and wireless microphones, goal-line and newly adopted video-assistant referee. Reports have shown that practitioners in the sports industry in Nigeria do not only lack the knowledge of these technology-assisted tools, but also have not displayed the expected attitude towards the management of these ICT devices as commonly practiced in developed countries. This consequently affects the context of the usage of ICT in the administration of sports in Nigeria. Previous studies focused largely on availability of ICT in Nigerian sports, with little emphasis on the knowledge, attitude and management practices of ICT among sports managers. Therefore, this study was carried out to examine knowledge in, attitude to and management practices of ICT as correlates of ICT usage among sports managers in Nigeria.

Davis's Theory of Technology Acceptance Model provided the framework, while the descriptive survey design of expo-facto type was used. The simple random sampling technique was used to select a state from each of the six geo-political zones of Nigeria. All sports managers in state sports councils, sport associations and National Sports Commission in each of the six states, totalling 1,297, were enumerated. The instruments used were Knowledge of ICT Use in Sports (r=0.85); Attitude towards ICT Usage (r=0.82); Management Practices of ICT (r=0.88); and ICT Usage (r=0.79) scales. In-depth interviews were held with five sports directors out of the six. Descriptive statistics of frequency counts and percentages were used to analyse the demographic data. Quantitative data were analysed using Pearson's Product Moment Correlation, Multiple regression and t-test at 0.05 level of significance, while qualitative data were content-analysed.

The Participants were male (65.5%) and aged 41.70±2.80 years. Knowledge (r=0.37), attitude (r=0.37) and management practices (r=0.31) correlated positively with ICT usage. There was a significant joint correlation of knowledge, attitude and management practices on ICT usage ($F_{(3;1295)}$=27.18; Adj. R^2=0.63; R=0.62), accounting for 63.0% of its variance. Knowledge (ß=0.55), attitude (ß=0.34) and management practices (ß=0.32) significantly contributed to ICT usage. There were significant gender differences in knowledge of ICT (t=4.43; df=1295), attitude (t=7.29; df=1295) and management practices (t=7.55; df=1295) between male ($\bar{x}$=76.42; $\bar{x}$=69.97; $\bar{x}$=70.67) and female ($\bar{x}$=71.71; $\bar{x}$=64.65; $\bar{x}$=64.85) sports managers, respectively. There were significant differences in knowledge (t=3.63; df=1295), attitude (t=5.12; df=1295) and management practices (t=3.02; df=1295) based on years of work experience between shorter years ($\bar{x}$=75.71; $\bar{x}$=69.36; $\bar{x}$=70.13) and longer years of work experience ($\bar{x}$=74.02; $\bar{x}$=66.71; $\bar{x}$=67.70). Sports managers agreed that ICT would increase their productivity if there is knowledge of ICT and equipment needed were available, which will consequently influence their attitude and usage.

The knowledge of ICT and its availability will enhance sports managers use of Information and Communication. Therefore, there is need for government to make provision of the advanced technology equipment for sports management in Nigeria.

Keywords: Nigerian sports managers, ICT deployment in sports, Sports administration in Nigeria

Word count: 474

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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Sports has gotten more popular and attracted global recognition. It has become, in this millennium, a symbol of wealth, fame and recognition which has major influence on the social, political and economic growth of any country. It is a means of bringing people of different cultures and creeds together, and serves as avenue where people of different genders, ages, religious backgrounds and political affiliations meet without any rancor (Akindutire & Oyeniyi, 2012).

In recent times, sports have gone nuclear as technology, such as Information and Communication Technology (ICT), has made sporting activities to be more advanced (Ibrahim, 2016). ICT in sports is a technical means by which athletes attempt to improve their training and competitiveness in order to enhance their overall performance (Ibrahim, 2016). There are also advanced sporting technologies developed to achieve sports goals with respect to particular sport.

The first Information and Communication Technology initiative in Nigeria started in the 1950s with focus on print and electronic media. No major policy or other outcomes was achieved because of strict government control. The full awareness of the importance of ICTs was absent. Only the private sector demonstrated ICT initiatives. The Obasanjo administration in 2001 established the National Information Technology Development Agency (NITDA) to serve as a bureau for the implementation of National Policy of Information Technology. NITDA is trying to increase the internet penetration level in Nigeria but the agency's focus is not particularly on Internet Ethics and content delivery. Availability of on-line facilities to the populace on a private level is still very low. Therefore, one has go to cybercafé for rudimentary net access such as email, net conferencing, browsing and so on (Obajimi, 2011).

Information and Communication Technology (ICT) is often used as an extended synonym for Information Technology (IT), but it is a more specific term that stresses the role of unified communication and the integration of telecommunications,

computers as well as necessary enterprise software, middleware, storage and audio-visual systems, which enable users to access, store, transmit and manipulate information (Anmol, 2014). The term ICT is now also referred to as the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. In reality, ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. ICT is the digital processing and utilization of information by the use of electronic computers and according to Okauru (2011), it comprises of the storage, retrieval, conversion and transmission of information. ICT is seen as an umbrella term that includes any communication device or application, encompassing; radio, television, cellular phones, computer and network hardware and software, satellite system and so on, as well as the various services and applications associated with them, such as video conferencing, distance learning, social networking, among others (UNESCO 2002). It cuts across the internet access, electronic mail, CD-ROMS, telephone, on line databases, library services and fax machines. ICTs are often used and spoken of in a particular context, such as ICTs in education, healthcare, libraries, sports, and this is to list a few. (Rouse, 2005). Ajiferuke and Olatokun (2009) have noted that ICTs are being deployed and used in every sector in Nigeria.

The major roles of Information and Communications Technology (ICT) in sports especially in the 21st century cannot be overemphasized. ICTs that can be deployed and used for sports are pedometers, heart rate monitors, digital video cameras and visual analysis softwares, simulation and games, internet, intranet, CD-ROM, data handling such as use of database, desktop publishing such as the use of power point, excel, among others (Anmol, 2014). If it were not for new inventions and innovative ideas, half of the sports we know would not exist. If it were not for ICT we would not have the instant replays, the baseline and goal line technology the headsets for coaches or the wireless microphones for our referees. However, old technologies of the past are quickly outdated and new and superior technologies has been introduced into sports and this change has come a long way since those early discoveries especially with regard to sports. For example, the use of ICT tools such as online database for teaching and training athletes is now being used by researchers in sports administration, and those

teaching sports coaching, as well as distance education and web based learning (Beech, Chadwick & Tapp, 2000).

On a more general form, the use of ICT in every activity such as sports can be grouped into software and hardware. Softwares are designed applications that the sports managers can work with for example Word processing packages, sports analysis softwares while hadrwares are the ICT tools like computers, ipad, tablets and ohers (Bamitale & Asagba, 2015). Although, ICT hardware and software are costly to obtain and maintain, they provide elastic benefits to sports activities and managers (Thomas & Stratton, 2006; Lightfoot, 2010). Wood (2008) noted that there are numerous software packages that are designed for fitness and nutrition professionals to organize data and produce reports. An example is the Team Beep Test (TBT), which is the most versatile and useful software for conducting and recording results of the bleep/beep test, with results recorded directly into the computer. Another example is the body byte, a universal stand-alone computer software programme specially developed to comprehensively organize and manage all the information associated with nutrition, training and fitness.

Hardware includes the computer itself, keyboard, monitor, joystick. Iheanacho *et al*. (2013) states that most of the transmission media used in sports are hardware and software facilities which aid in transmission of information such as cables and microwave devices, among others. The computers and the softwares that runs in them are essential elements and keys to success for modern sports management (Iheanacho *et al*., 2013). For example, database management software can be installed on a system to enhance sports management. Database softwares are very widespread as most standard office computer software packages which typically has a simple database programmes in addition to word processing, spreadsheets and presentation applications (Rosandich, 2008).

The system was shown to effectively track the large multi-sport events at the Summer Olympic Games. Also, the National Performance Database Information System is another example of a recently created database that manages performance competition data. This Information system was created by the Sport Technology Research Laboratory (University of Calgary) for Own The Podium (OTP) 2010. The

National Performance Database includes competition results and performance data for all 152 sports disciplines that participated at the 2010 Winter Olympics and Paralympic Games. Sports administrators and the public can search for results by the various competitions or by athletes' names (Vincent & Childs, 2009).

Although, in Nigeria, various sectors are eventually discovering the need for deploying and using ICT in their activities (Ajiferuke & Olatokun, 2009), this is untrue with regard to sports. Sports management in Nigeria have a diverse range of information needs and the integrated use of several forms of information and communication technologies would allow these different needs to be met in an efficient and cost effective manner (Iheanacho *et al*., 2013). Despite all the benefits and roles of ICTs in sports management in the world of sports, many sports administrators in Nigeria are far from the use of modern information and communication technology for effective sports management. Although globally, ICT is used in many aspects of sports management, in most collegiate sports, ICT is highly utilized to facilitate organisation and conducting of many competitions, Nigeria as a developing nation sees Information and Communications Technology as the bedrock for economic and sectoral development such as sports and sports management (Ajiferuke & Olatokun, 2009)

Knowledge of ICT refers to the understanding users may have concerning the use of ICTs in sports and with specific emphasis such as ICTs that can be used in sport-management, used in competitions, those that can be deployed and used to train athletes, among others. Eguavoen (2011), knowledge of ICT to be utilized in sports is imperative to modern potential sports managers in Nigeria so that the present day modern trends managerial skills and expertise can be fully utilized. Practice refers to as the continuing usage of ICT. Sally (2004) states that practice is an established way of doing things especially, one that is developed through experiences and knowledge. Also, management practices are things that are done regularly; a habitual thing that generally involves doing things in a way that is consistent, customary or static.

Knowledge is the process of knowing, through information, understanding or skill that one gets from experience (Edinyang, Odey & Gimba, 2015). More so, it is the sum of what is known; the body of truth, information and principles acquired by humankind. In this study, and with regards to knowledge of ICT use in sports, it refers

to knowing the usefulness of ICT in sports management practices. According to the Qualifications and curriculum Development Agency (2010), knowledge in the use of ICT in sports cuts across being aware of various ICTs and their usage, such as its use in research, use of the Internet and DVD, use of word-processing/desktop publishing/presentation/spreadsheet software; communicate and exchange information such as email and web-based methods; use of digital cameras/video and video editing; and upload files such as web-based mediums, presentations, applications, among others.

Attitude measurement towards the use of ICT has been shown to inform specific understanding of the relationship between attitude and behaviour as proposed by Fishbein and Ajzen (1975) in the theory of reasoned action (TRA). The theory of reasoned action posited that an individual's behaviour is feeling or way of thinking that affects a person's behaviour, which ought to have been used by sport managers to determined his/her intention to perform managerial duties. Also, both the behaviour and the intention are influenced jointly by the individual's attitude and subjective norm – a measure of how people are influenced by their peer's opinions. According to Eguavoen (2011), attitudes play important part in affecting behaviour and must, therefore, be taken into consideration in management which include sport management, especially during processes of change and innovation (Spacey, Guilding & Murray, 2003) which in this study is referred to as the transition into the deployment and use of ICT for sports activities.

Management practices are viewed as a consistent way of deploying ICT by sports management for high productivity in planning, organisation, coordination etc. In sports, there are consistent ways of management that ensures success of the organisation (Daniel, 2015) that could also be extended to the consistent deployment and use of ICT for sport. In addition, practice in the use of ICT could be observed to be done by any sports manager when such manager consider some external variables such as image, relevance, output quality, result demonstrability, subjective norms, etc. in the Technology Acceptance Model (TAM) 2 of Venkatesh and Davis (2000). It can be assumed that for any sports manager to continuously deploy and use ICT in sports, such manager or organisation that such manager belong to, should have had a better image, see ICT as relevant to achieving sports goals, must have seen ICT to produce better

output and result. Attitude refers to disposition and feelings about the use of ICTs in sports and sports management. According to Davis, Bagozzi and Warshaw (1989), in the Technology Acceptance Model (TAM), attitude refers to individual's positive or negative feeling about performing the target behaviour (using a system). Onasanya, Shehu, Oduwaiye and Shehu (2010) and Eguavoen (2011) states that attitude of user is a major factor that can affect ICT implementation.

1.2 Statement of the Problem

The role of sport managers cannot be overemphasized. Their deployment and use of ICT for sports management or administration is also of major importance to the sector and its development especially in Nigeria. However, Onasanya**,** Shehu**,** Oduwaiye and Shehu (2010) stated that the use of ICT in Nigeria, is very low. This low level in ICT usage in Nigeria is also affecting sports. If it were not for ICT usage by sports managers in advanced countries, there would not have been instant replays, the headsets for coaches or the wireless microphones for referees, the baseline and goal line technology, the newly adopted Video Assistant Referee etc. However, old technologies of the past are quickly becoming outdated and new and superior technologies have been introduced into sports and this change has come a long way since those early discoveries especially with regard to sports. The sports industry practitioners lack the knowledge of these tools and where available their attitude towards utilization and management practices of this technology is far below expectation. In Nigeria major sports competitions, sports managers are always invited from developed countries to operate these ICT tools. This consequently affects administration of sports generally in Nigeria. This could be attributed to poor attitude and low level of knowledge among sports administrators in Nigeria. In addition, small organisations which include small sports organisations which are mainly locally owned, have low usage of ICT due to the high cost of required investment, limited knowledge and skills, and being very responsive to charges. This could be one of the major reasons why local sports cannot be compared to international sports.

In developed countries, users of ICT such as sports managers move quickly to learn and adopt new information technologies such as computers, software, CD-ROM, email, Internet, networks, and other information management and communication technologies than those in developing countries (Ramzan, 2004; Ajiferuke & Olatokun, 2009). Reasons adduced for this are stated as low level of knowledge of new information technologies, lack of professional training and poor equipment such as ICTs with insufficient hardware, inappropriate software and ineffective technology-based materials. Also, in Nigeria, ICTs are not deployed and used efficiently in sports. This could have an elastic effect on sports management in Nigeria and also to Nigeria sports in general and would not make sports administrators in the nation to stand international standard at the long run. Previous studies focused largely on availability of ICT in Nigeria sports with little emphasis on the knowledge, attitude and management practices of ICT among sports managers. Therefore, this study was carried out to examine knowledge in, attitude to and management practices of ICT as correlates of ICT usage among sports managers in Nigeria.

1.3 General Objectives

The main objective of this study was to investigate knowledge in, attitude to and management practices of ICT as correlates of information and communication technology usage among sports managers in Nigeria.

Specific Objectives of the Study

The following specific objectives were investigated:

1. To examine the knowledge of sports managers in the use of ICT for sports in Nigeria.
2. To investigate the attitude of sports managers towards the use of ICT for sports in Nigeria.
3. To determine the level of use of ICT in sports by sports managers in Nigeria.

4. To find the relationship between knowledge and use of ICT in sports by sports managers in Nigeria.
5. To establish the relationship between knowledge and attitude towards the use of ICT in sports by sports managers in Nigeria.
6. To examine the relationship between attitude and use of ICT in sports by sports managers in Nigeria.
7. To investigate the correlates ability of knowledge on ICT use among sports managers in Nigeria.
8. To find the correlates ability of attitude on ICT usage among sports managers in Nigeria
9. To determine the correlates ability of management practices on ICT use among sports managers in Nigeria
10. To establish the joint contribution of knowledge, attitude and management practices on ICT use among sports managers in Nigeria

1.4 Research Questions

The following research questions were answered in this study:

1. Do sports managers in Nigeria have knowledge of ICT for sports?
2. What is the attitude of sports managers in Nigeria towards the use of ICT for sports?
3. Do sports managers in Nigeria use ICT for sports?
4. Do sports managers in Nigeria go for periodic training on ICT use?
5. Will there be relationship among the independent variables (knowledge, attitude and management practice) and the dependent variable (use of ICT)?

1.5 Hypotheses

The following hypotheses were tested in the study:

1. Knowledge will not be a significant correlate of ICT usage among sport managers in Nigeria.
2. Attitude will not be a significant correlate of ICT usage among sport managers in Nigeria.
3. Management practices will not be a significant correlate of ICT usage among sport in Nigeria.
4. There will be no significant joint contribution of knowledge, attitude and management practice on ICT usage among sport managers in Nigeria.
5. There will be no significant gender difference in knowledge of ICT use for sports among sport managers in Nigeria.
6. There will be no significant gender difference in attitude towards the use of ICT for sports among sport managers in Nigeria.
7. There will be no significant gender difference in use of ICT for sports among sport managers in Nigeria.
8. There will be no significant difference in knowledge of ICT for sports among sport managers in Nigeria based on years of experience.
9. There will be no significant difference in attitude towards the use of ICT for sports among sport managers in Nigeria based on years of experience.
10. There will be no significant difference in use of ICT for sports among sport managers in Nigeria based on years of experience.

1.6 Delimitation of the Study

The study was delimited to the following:

1. Descriptive research design of expo-facto type.
2. All Sport managers in Geo-political Zones in Nigeria as population.
3. States in the 6 Geo-political zones of Nigeria.
4. One thousand two hundred and ninety-seven (1,297) sports managers as respondents.
5. Independent variables of knowledge of ICT, attitude, management practices

6. Standardized and self-structured questionnaires as instruments for data collection.
7. Simple random technique and purposive sampling techniques
8. Descriptive statistics of frequency count, percentages and pie chart to analyse the demographic data and research questions while inferential statistics of multiple regression, Pearson Product Moment Correlation (PPMC) and t-test was used to test the hypotheses at 0.05 alpha level. Thematic content analysis was used for quantitative data.
9. Ten (10) trained research assistants.

1.7 Limitations of the Study

The major limitation of this study was that the researcher could not reach one of the samples areas (Taraba State) for in-depth interview due to insurgency in the area at the time of data collection. But the questionnaire got to the respondents in the area through the help of the research assistants. Another limitation was that few of the respondents did not fill the questionnaire very well, this reduced the questionnaire by fifty-three (53). One thousand two hundred and ninety-seven (1,297) that were properly filled were analysed.

1.8 Significance of the Study

The findings of this study provided empirical data on the use of ICT among sports managers in Nigeria. It also established and confirmed the knowledge of ICT usage among sports managers in Nigeria. The findings of the study would be of great benefit to sports organisations at all levels, including tertiary institutions, sports councils and teams in Nigeria. It would help sports managers to understand the importance of the use of ICT gadgets as part of their duties as managers to perform and articulate when the activities would be performed and how they would be performed in order to improve performance of athletes in sports. The findings of this study provided information on how sports personnel which cuts across sport managers, coaches and athletes can position themselves especially with the recent global trend in ICT deployment and use to enhance sports performance, especially with regards to Nigeria. Information provided by this study would be useful to school authorities, governing

councils, physical education teachers, instructors and sports managers in planning and developing strategies on how to integrate ICT into Nigerian sports. Such integration would obviously be to the advantage of the institution in question.

In addition, the result of this study provided information on major factors that could either enhance or reduce the deployment and use of ICT and how sports managers and other personnel can tackle such factors as provided in this study. Such information on the factors as provided by this study would help guide various authorities, governing councils, physical education teachers and ministries of education in planning, provision and maintenance of sports activities and selecting sports managers or coaches who would assume the position to manage or train athletes in Nigeria. Also, results of this study established the need for continuous research interest within the area of sports management where other sectors with bias for sports programmes implementation could draw inferences for their sports personnel, sports funding, sports facilities, sports equipment, athletes motivation and participation in sports. Finally, the findings of this study also be a pivot where the nation's sports can be brought to lime-light as this study would help provide basic factors that can enhance the use of ICTs in sports, thus influence their performance not only at the local level but also at the international level to be able to meet global standard, win an international recognition and also enhancing the image of the nation.

1.9 Operational Definition of Terms

Attitude: This refers to sports managers' positive or negative feeling about using ICT for sports.

Knowledge: This refers to understanding sports managers may have concerning the use of ICTs in sports and with specific emphasis such as ICT tools that can be used in sports management, competitions, those that can be used to train athletes, among others. It is also referred to as the ability to identify correctly the types and benefits of ICT; the ability to possess formal information about ICT.

Management practice: This is the continuous usage of ICT in sports organisations by sport managers.

ICT: These are hardware and software application systems such as databases, cellular phones, computers and networks, satellite systems and so on, as well as the various services and applications associated with them, such as video conferencing, social networking, among others used in sports by sports managers to enhance the performance of athletes.

Management: This involves the act of organisation and administration of sports activities and athletes to ensure a better performance.

Sport Managers: These are individuals involved in the organisation and administration of sporting activities and athletes. Such coaches, managers, secretaries and chairmen.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter is basically reviewed and discussed relevant literature under the following subheadings:

3 Conceptual framework

4 Theoretical framework

5 Theory of Acceptance Model 1

6 Theory of Acceptance Model 2

7 Theory of Planned Behaviour

Theoretical Review

Concepts of Sports Management

Concepts of Sports Development

Sports Development in Nigeria

Sports Management and Administration in Nigeria

8 Role of Sports Managers in Sports

9 Knowledge of ICT use in sports in Nigeria by Sports Directors in Nigeria

10 Use of ICT for Management Practice by Sports Directors in Nigeria

11 Attitude towards the use of ICT for Sports by Sports Directors in Nigeria

12 A General View of Information and Communication Technology Deployment in Nigeria

13 Use of ICT in Sports by Sports Administrators in Nigeria

14 Challenges of ICT use and Deployment in Nigeria: A General Perspective

15 Empirical Review

16 Sport Administrators' Knowledge and information and communication technology usage

17 Sport Administrators' Management practices and information and communication technology usage

18 Sports Administrators' Attitude and information and communication technology usage

19 Demographic Characteristics and ICT Usage

20 Knowledge and ICT Usage

21 Attitude and ICT Usage

22 Management practice and ICT Usage

23 Appraisal of Reviewed Literature

2.1 Conceptual Framework

The present study hypothesized that there was significant relationship between sports managers' knowledge and their use of ICT for sports activities; sports managers' continuous sports practice and their use of ICT for sports activities; and sports managers' attitude and their use of ICT for sports activities. Also, it is assumed that there was significant differences in ICT usage level among sports managers in Nigeria. In addition, there was significant joint interaction effect of sport managers' demographic characteristics, knowledge, practice and attitude on ICT usage in Nigeria among sports administrators in Nigeria. From this, major variables of this study are sports managers' knowledge; use of ICT in sports management practice; sports

managers' attitude; and use of ICT by sports administrators in Nigeria. Also, sports administrators' demographic characteristics is an important variable of the study which include gender, age, level of education, ICT literacy, sports organisation belonged to, among others.

The comprehensive Technological Acceptance Model 1 and 2 was adopted for this study. This model is one of the most cited frameworks to correlate the acceptance and use of new information technology within organisations which cut across sports organisations. The Technology Acceptance Model hypothesises that system use such as ICT use among sports managers is directly determined and by behavioural intension to use. The study also adapted the Theory of Planned Behaviour. This theory have been used over the decades to examine various behavioural intensions and actual behaviours which could also include the ICT usage among sports managers in Nigeria.

The study also went further to review the relevant literature on the various concepts of interest such as sports management, sports development, and sports development in Nigeria, sports management and administration in Nigeria, knowledge of information and communication technology use, management practices, attitude and ICT usage in sports activities in Nigeria. The empirical literature was also reviewed in this study on sport administrators' knowledge, attitude and management practices and information and communication technology. It was also revealed from the literature that information technology usage in sports organisations is a must for such organisation to change its athlete level of performance in sport programme.

Conceptual frame work for the study

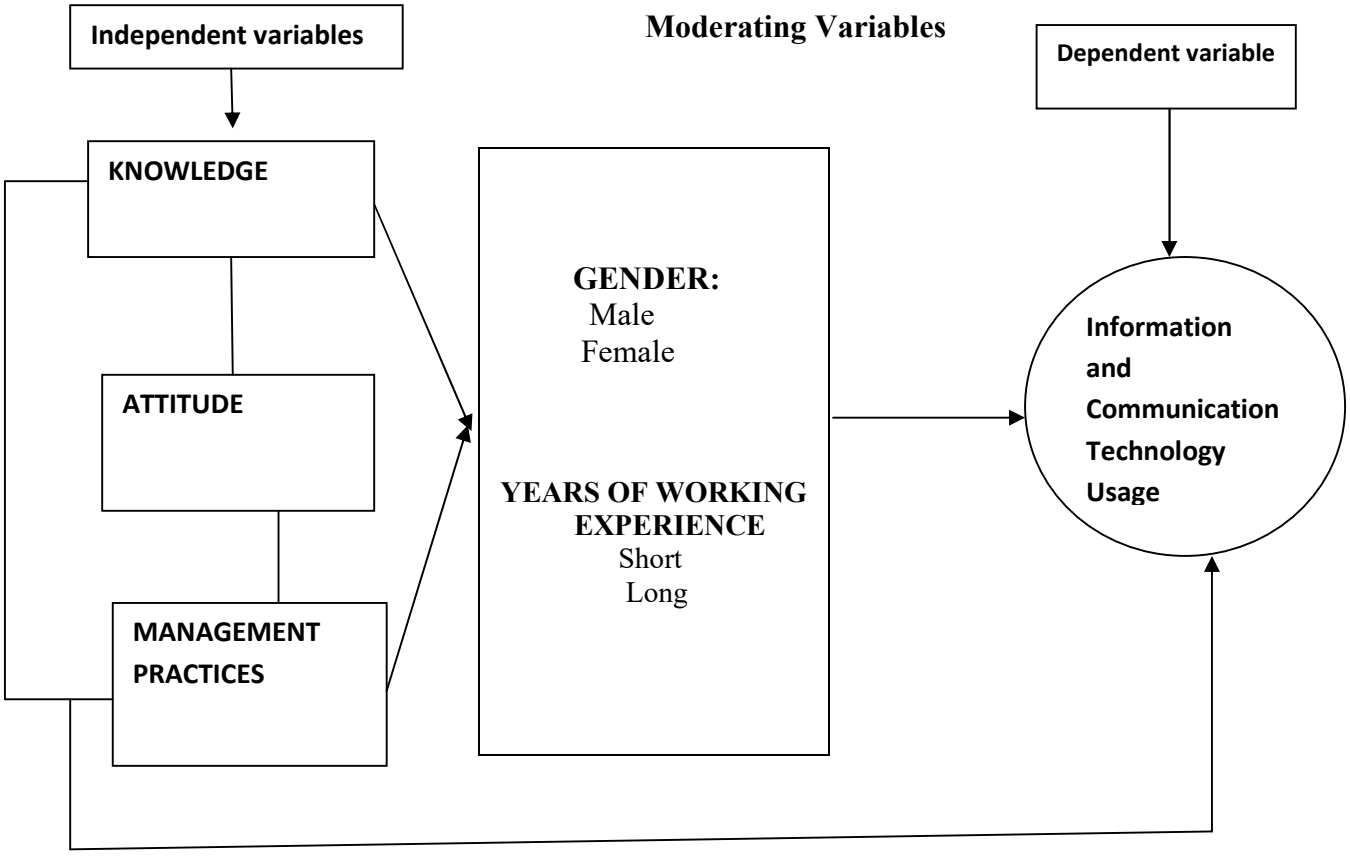

Figure 2.1: Conceptual framework of the study
Source: Self-Developed

Knowledge about the use of ICT in sports, attitude as well as management practice of sports managers are the independent variables of the study while use of ICT by sports administrators in Nigeria is the dependent variable.

2.2 Theoretical Framework

The study adapted the Theory of Acceptance Model 1 and 2 and the Theory of Planned Behaviour.

Theory of Acceptance Model 1

The Technology Acceptance Model (TAM) introduced by Davis *et al*. (1989) is one of the most cited theoretical frameworks to correlate the acceptance and use of new information technology within organisations which cuts across sports organisations. This model derives from the psychological models of the Theory of Reasoned Action (TRA). The Technology Acceptance Model hypothesizes that system use such as use of ICT among sport managers is directly determined by behavioural intention to use, which is in turn influenced by users' attitudes toward using the system and the perceived usefulness of the system. Technology Acceptance Model is a popular theory used to explain the acceptance of technology amongst individuals which also cut across sports administrators in Nigeria.

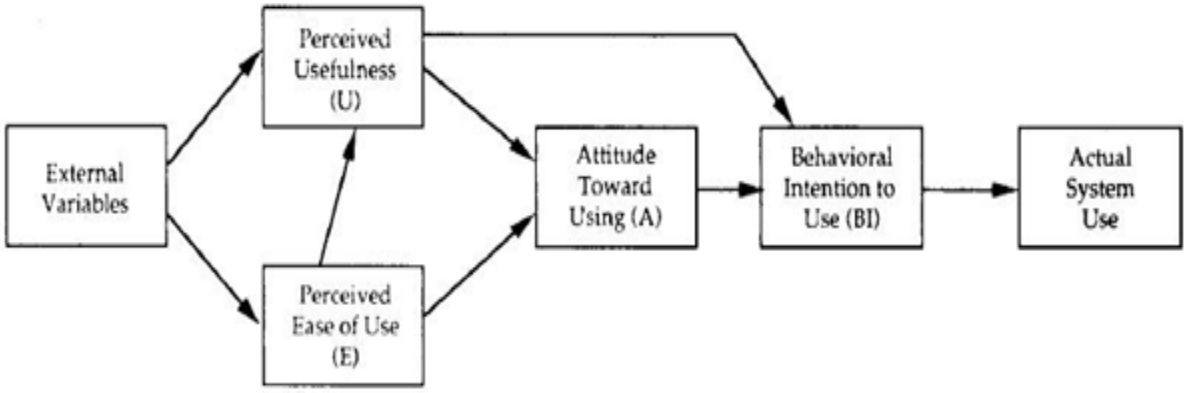

Figure 2.2: Technology Acceptance Model (TAM)
Source: Davis, Bagozzi and Warshaw (1989)

Attitudes and perceived usefulness are also affected by perceived ease of use. Perceived usefulness is defined as the degree to which individuals believe that using a particular system would enhance their job performance (Davis *et al*., 1989), whereas perceived ease of use relates to the degree to which individuals believe that using a particular system would require no effort (Davis *et al*., 1989). These two factors have

been empirically justified as important factors determining the adoption and use of new information technology, including use of ICT among sports administrators in Nigeria (Vijayasarathy, 2002).

Theory of Acceptance Model 2

According to Venkatesh and Davis (2000), Subjective norms, image of the organisation, job relevance, output quality and result demonstrability are assumed to influence the perceived usefulness of a system which could also include ICT in sports. Perceived ease of use is also assumed to influence perceived usefulness. Also, perceived usefulness and perceived ease of use are assumed to influence intention to use the system such as ICT in sports. Also, intention to use is assumed to influence the actual use of the system such as the use of ICT in sports by sports administrators in Nigeria. Also, some demographic characteristics were hypothesized to influence the relationship between some variables of interest in the study.

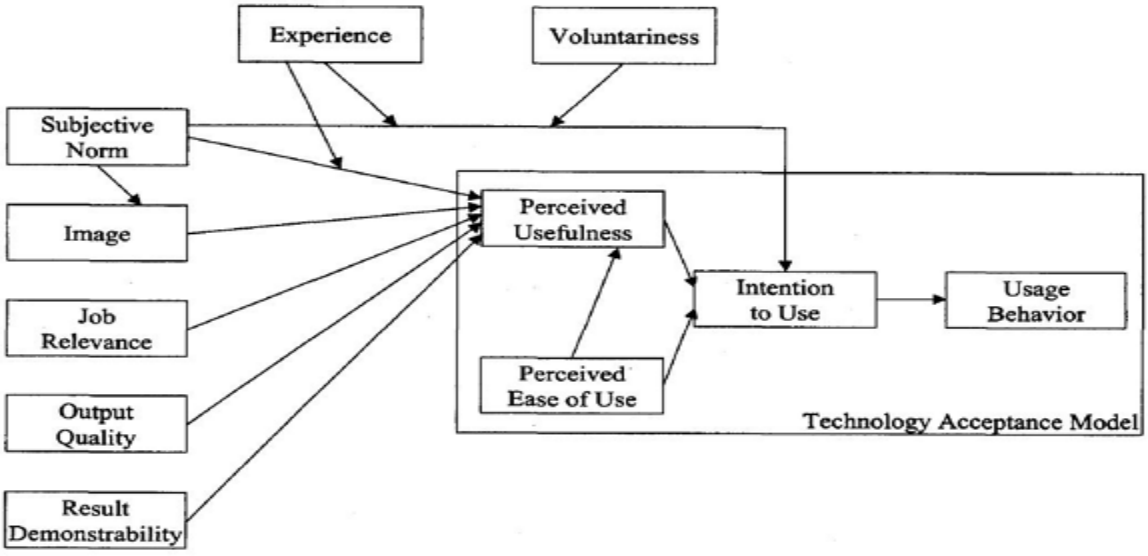

Figure 2.3: Technology Acceptance Model (TAM) 2
Source: *Venkatesh and Davis (2000)*

It is important to draw attention to the fact that the TAM 2 was an extension of TAM 1 and other important variables were added to expand the theory of acceptance model. Subsequent expansions has led to TAM 3 which this study does not cover. This study deployed TAM 2 due to the fact that it is assumed that practice is a function of the image of the sports organisation with regard to the world, ICT relevance to the sport, output quality it would produce when deployed and used, result demonstrability, and subjective norm. Thus, it is assumed that for an organisation to involve in management practice using ICT, such sports organisation or sports administrator would have had a high image in the society, known the relevance of ICT use to sports management activities, been knowledgeable in the result demonstrability; and some other external forces would have raised their expectation concerning such sports organisation and also such sports administrator. Thus, this expectation could propel the tendency to the use of ICT by sports administrators in Nigeria. To this end, the study deployed the TAM 2 model.

2.3 Theory of Planned Behaviour

This study adapted the Theory of Planned Behaviour to correlate and explain ICT usage among sports administrators in Nigeria. The Theory of Planned Behaviour (TPB) was proposed by Ajzen (1991) and have been used over the past decades to examine various behavioural intentions and actual behaviours which could also include the ICT use among sports administrators in Nigeria. In TPB, it is assumed that behaviour towards ICT use among sports administrators in Nigeria is determined by the individual intention to use such system: this time whether hardware or software, or not to use. Meanwhile, intention is determined by the two independent variables, including

attitudes and subjective norms. The perceived behavioural control to ICT use among sports administrators in Nigeria is also seen as a major variable.

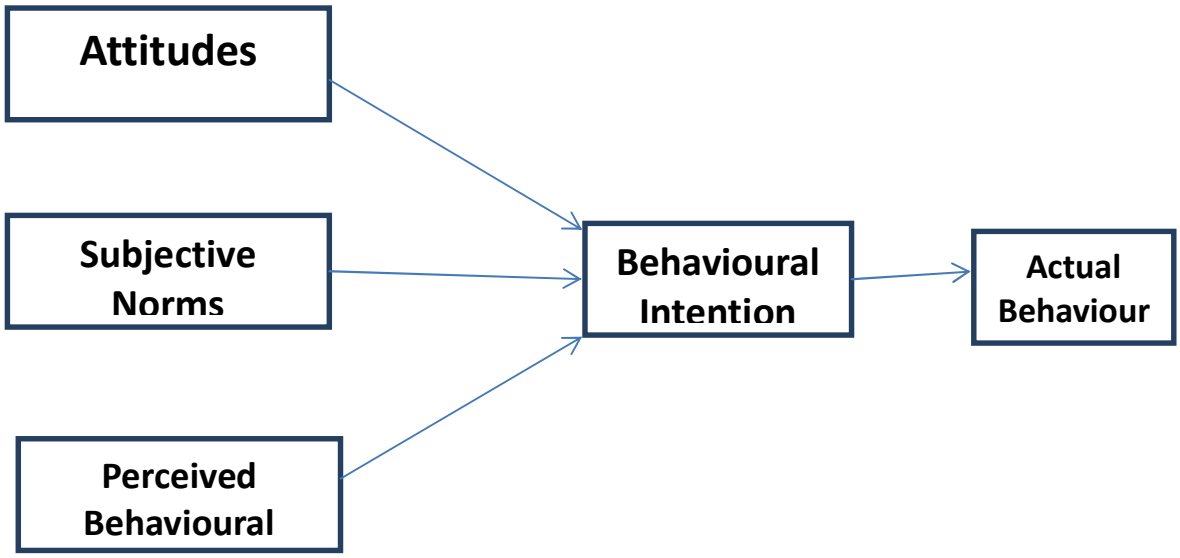

Figure 2.4: Theory of Planned Behaviour

Source: Ajzen (1991)

Within Ajzen's theory, attitude toward behaviour such as ICT use among sports administrators in Nigeria refers to the degree to which a person has a favourable or unfavourable evaluation appraisal of the behaviour such as ICT use among sports administrators in Nigeria (Ajzen, 1991). Behavioural beliefs describe subjective probability that the behaviour such as ICT use among sports administrators in Nigeria would result in a particular outcome (such as enhancing sports management or administration), and evaluations describe the implicit valuation or payoff that an individual associates (at this time a particular sport administrator) with the outcome. Perceived behavioural control measures individual perceptions of the ease or difficulty to ICT use. Studies such as Kurland (1995), Chang (1998), Santhanam (2002) and

Millar and Shevlin (2003) have stated that the Theory of Planned Behaviour can effectively model and explain organisational behaviours which could also include ICT use among sports administrators in Nigeria thus, its usefulness in this study.

2.4 Theoretical Review

This section provide relevant literature on the various concepts of interest in this study such as knowledge of ICT use, practices, attitude and ICT use in sports activities in Nigeria.

2.4.1 Concepts of Sports Management

Sports Management as any combination of skills related to planning, organizing, directing, controlling, budgeting, leading as well as evaluating within the context of an organisation or department whose primary product or service is related to sports or physical activity (DeSensi, Kelly, Blanton & Beitel, 2003). It was further established that sports managers carry out managerial skills in a variety organisation settings. These include professional and amateur sports, college sports, sports marketing, sports technology, community recreation sports programmes, corporate sponsorships sporting goods firms and a host of others.

Similar to profit-making and public organisations non-profit organisations are under continuous pressure to develop strategies and embrace management practices which ensured organisational effectiveness. This is because non-profit organisation around the world, though independent entities rely heavily on public funding in order to survive and provide social services (Herman & Renz, 2004). The construct of organisational effectiveness has gained interest in the non-profit sector during the

nineties (Rojas, 2000). Besides the growing academic interest in non-profit organisations, non-profit organisations realized that being critical at their performances is important to warrant the survival of their organisations (Rojas, 2000). In addition to the pressure of profit institutions to capture the previously considered domain of non-profit organisations, funders of non-profit institutions showed an increased interest in their effectiveness this include the information and technology usage (Herman and Renz, 2004).

The primary interest of the National Sports Organisations (NSO's) is the promotion of the sports concerned within the country (domestic sports development), their actual involvement most NSOs aim at pursuing both goals (that is, elite and development sports), which in practice may appear very difficult as each one demands different delivery systems and technologies. Furthermore, the measurement of the high performance-related objectives (medals, breaking records, world ranking) is easier, compared to the sports development sector which is in an activity domain with measurement complexity. Another factor confounds the study of organisational effectiveness in the context of the NSOs is their human resources. Four internal identifiable groups (volunteers, paid administrative staff, contracted professionals, officials) have to work together in order for the NSOs to deliver their services. Other constituencies associated with the NSOs' operation are the resource providers and the recipients of the services who also form legitimate expectations about the outputs of their organisations (Karteroliotis and Papadimitriou, 2004).

In a Study of technology effectiveness in non-profit arts organisations, Kushner and Poole implicitly argue that technology effectiveness is not only an objective reality,

but undimensionality. They present a model of effectiveness that combines constituent satisfaction, resource acquisition, internal processes and goal attainment. Although Kushner and Poole (1996) use several indicators of effectiveness model they present treats constituent satisfaction as leading to and resource acquisition effectiveness. Thus, they interpret their approach assuming that these components are cumulative, not independent and non-cumulative dimensions. Whether the sports organisations are judged as effective depends also on how successful are the liaisons between the various organisations groups, and on how boards enact and exercise their voluntary leadership (Hoye, 2004).

2.4.2 Concepts of Sport Development

Development of sports can be regarded as a process of continuous improvement of the sports structures, performances and programmes in order to create a condition which is conducive to physical fitness for all and the effective functioning of self-actualisation (Federal Repulic of Nigeria, 1989). It is a common knowledge today that the attainment of world class status in sports is a strong reflection of development objective of a country including Information and Communication Technology (ICT) in Sports. Amuchie (1992) defined development as a stage in growth that leads to advancement; increase in size or to evolve and to unfold. It denotes a state of coming into being and evolving into maturity. According to Amuchie (1992), sports growth and development such as ICT usage can be measured in two ways (vertically and horizontally); vertically by identifying increase in the number of new sports a country has participated and new technology tools used over the years and horizontally by

determining the levels of frequency of competition in sports within a given period. Furthermore, sports development could also be measured from the number of successes achieved in national and international sports competitions. These successes have direct bearing with the indices of sports development, which are sports policy, sports personnel, funding and sports facilities.

2.4.3 Sports Policy

This is a set of guidelines blueprint or action plan for the development and management of sports including Information and Communication Technology (ICT) usage in sports (National Sports Development Policy, 1989). The main objective of the sports development policy of any nation is to provide the nation with the opportunity of measuring its sports mighty against those of other nations of the world with a view to establishing a respectable position in the sporting community of the world. This include introducing a policy that will make ICT tools usage compulsory in our sports organization in Nigeria.

2.4.4 Sports Personnel

This includes coaches, sports managers, stadium managers and organizing secretaries. These are some of the personnel required for the management of sports development programmes. Coaches are responsible for the improvement of the level of skills of the athletes. There is no way the quality of participation of any nation in competitive sports can improve without have well trained and experience coaches in various sports (Chidi, 2018). The sports personnel should be able to use ICT tools to do their work effectively. There should be database system that will be monitoring effectiveness of sports personnel.

2.4.5 Funding

Funding entails providing adequate financial resources required to organize good sports programme that has a global standard (Huge, 2009). The importance of providing adequate funds for sports programmes cannot be over emphasized. The services that are involved such as recruitment and training of personnel, purchase of equipment including ICT tools, construction of standard facilities, transportation and care for the athletes, all require large sums of money. Specifically, about sports programmes, there are areas of higher expense and adequate funding which is necessary if goals are to be achieved. Adequate funding is essential for effective sports development especially in this 21st century sports technology advancement. There should be enough fund to equip sports organization with adequate ICT tools.

2.4.6 Sports Facilities

The provision of facilities in all sports is one of the major priorities in the promotion and development of sports. Responsibility for the provision of the facilities shall be shared by government, individuals and private organisations. In most cases in Nigeria, Sports facilities are owned by the government at all levels. Such facilities include stadia across different states. However, ownership of sporting facilities by private institutions/individual is being witnessed in Nigeria (Chidi, 2018). For better Sports performance there is need for adequate ICT facilities in sport organisations like computerized athletes training facilities. Internet facility is a powerful tool in sports organization, it will connect sports managers to other managers globally.

2.4.7 Sports Development in Nigeria

Global sports have become progressively capital intensive, yet history shows that government has almost single-handedly shouldered the responsibility for sports development in Nigeria, especially when it comes to provision of sports facilities including ICTs facilities, programmes, personnel and participation in continental and global competitions. There is minimal private sector participation. Therefore government is forced to invest part of its scarce resources on sports development. The development upsurge of interest in highly organized competitive sports in Nigeria is a relative new phenomenon dating back to the early 1980's when Nigeria hosted the won Africa Soccer Cup of Nations in Lagos (Chidi, 2018).

The government of the Federal Republic of Nigeria has made tremendous efforts towards the development of sports in the country. In most cases, substantial resources, both human and materials have been invested in a wide range of activities intended to bring about a strong base for a meaningful development of sports. An objective observation of these efforts reveals that the recommendable objectives of the government and the people of Nigeria for sports development are yet far from being realized. Expensive commissions of enquiry into the management of sports in Nigeria have been set and often well written reports are presented, accepted and published. In addition, a sound sports development policy for the nation has been published. At present Nigeria has a Federal Ministry charged with the function of Youth Affairs and Sports.

The sports policy in operation is the 1989 sports policy, which outline the main objectives and programme areas currently undergoing review. Sports require a lot of

fund and for this sector to be able to achieve desired result all the other factors or indices depend solely on funds. In spite of the annual budget provided by the governments in Nigeria, sport is still not adequately funded. Nigeria over the years made some impressionable successes. It was such international sport successes but all the successes recorded were by chance and not by share hard work. Questions are being asked, enquiries are being made and documenting evidence sought. How, where are the players bred? What is the entrenched system of development? What is the impact of league? What part does administration play? Is coaching a big new 'player' in sports development? What and where are the facilities for training and for completion? What is the role of the sport?

The introduction of 21st century ICT tools will provide proper answers to these questions. There should be athlete's database management system that will be monitoring athletes development and also organizational database management system for feedback and reports, from the information retrieved from this database will help decision making that will improve sports development in Nigeria.

2.4.8 Sports Management and Administration in Nigeria

Sports management as an academic discipline, it is a field of endeavour which encompasses other disciplines utilized to bring sports programme nearer to the people, provide heroic healthy struggle, graceful balance and harmony. It can also be seen as the application of management theories and techniques to sports programmes, programming and execution (Fasan, 2002).

Desensi and Rosenberg (1996) see sports management as a field interested in the organisation and administration of specific sports related area. It is a field of endeavour

involving leadership, decision making process, staging of athletic events and marketing sports. Sports management as the activities of personnel in an organisation from different disciplines working with the limited resources with the aim of accomplishing the goals of the organisation. Many specialized areas in sports management and goes on to suggest that the professional in sports management in Nigeria, apart from the basic educational qualification, should be exposed to series of training courses, seminars and workshops in the various areas of the sports enterprise after the initial training (Udoh, 2002).

2.4.9 Sports Administration in Nigeria

Generally, administration has been a major problem in developing countries such as Nigeria and thus has called for attention among scholars and many stakeholders in the economy. To this end, it is not strange to hear of its multidisciplinary and multisectoral approach in the national economy. For example, job administration, business administration, hospital administration, sports administration, among others. Of major importance to this study is sports administration. There is a dire need to understand the concept of administration. In a general perspective, administration whether good or bad, most often affects the success or failure of any organisation which could also include sports organisations (Duru, 2001). According to Olagboye (2004), administration could be an art and also a science. It refers to the process through which appropriate human, material and other available resources are managed (Olagboye, 2004; Morakinyo & Aluko, 2008) and also include the availability and effective use of resources designed to ensure cooperation, participation and interaction among the elements of the organisation to achieve organisational objectives and thus enhancing the

performance of the organisation which also include sports organisation (Olagboye, 2004 and Banji, 2006).

Furthermore, an administrator (which includes sports administrator) is one who performs and does the job of getting certain organisational objectives accomplished through the availability of both human and material resources including finance (Banji, 2006). In essence, an administrator manages the affairs of the organisation with respect to the stated and pre-determined goals and objectives of the organisation. With regards to sports, sports administrators manage the human and material resources which could also include finance. It is pertinent to draw attention to the fact that administration does not come to play except it is built on some principles and elements. Gulick and Urwick (1937), summarized administration elements into the term "POSDCORD" which means P- planning, O-organising, S-staffing, D-directing, C-communicating/coordinating, R-reporting and B-budgeting. Fayol (1949), reworked "POSDCORD" of Gulick and Urwick (1937) and summarized the principles or elements of administration as planning, organising, commanding, coordinating, and controlling. In another study, Koontz and Weihrich (1994) relisted them as planning, organising, staffing, leading and controlling. Which so ever way, it is pertinent to note that the elements of administration include:

Planning: To arrange plans of operations of any business. It is the process of preparing a set of decisions of action in the future directed at achieving goals by optimal means. According to Banji (2006), planning can be effective and not effective. Effective planning is necessary for the attainment of goals and objectives of any setting, including

sports thus it is needed by sports administrators to achieve sports organisational goals and objectives. Through planning, a sports administrator coordinates the activities of the sport organisation towards well defined or pre-determined objectives. According to Banji (2006), such effective planning takes into cognizance the coordination of the human and material resources such as staffing, financing, adequate infrastructure, procurement of equipment which also could include various needed Information and communication technology that could be effectively deployed and used for sports management activities and other important materials and resources needed by the sports administrators to perform their duties.

Organising: Organising is the building block for managing both the human and material resources for sports organisations. The human and material resources must be well arranged and organized in the best way to achieve pre-determined goals and objectives of the sport organisation by the sports administrator (Olagboye, 2004). To this end, organising is the process of creating and maintaining the conditions for effectively executing plans (Banji, 2006). From Banji's (2006) definition, it is obvious that for a better organisation (organizing), a good sports administrator must indulge in a good planning. Organising involves three important steps for any manager such as sports administrator (Banji, 2006):

i. To determine all tasks,

ii. Set up a structure to accomplish all tasks, and

iii. Allocate resources.

Staffing: This refers to the human resource management. Human resource could include athletes, other staff, among others. Staffing involves identifying, assessing, placing, evaluating and developing individuals at work through various actions such as recruiting, selecting, appraising and promoting the individuals and in sports this could also include athletes. The success of any sports organisation depends on the quality and strength of its staff and athletes.

Directing: Directing could simply mean to command and it is described as making the staff or athletes to do their work. Gulick and Urwick (1937) states that, directing, in practice involves a continuous task of making decisions and embodying them in specific and general orders and instructions, and serving as the leader of the sport organisation. Also, Banji (2006) noted that, it is concerned with the authority necessary to keep the sports organisation going and involves issuing directives, consulting and decision making. To this end, a sports administrator finally realizes that the bulk for the success of the sports organisation lies with his or her.

Coordinating/Communicating: Coordinating is seen as the unity and correlating of all activities and involves the ability and the capability to harmonize the available human and material resources together in the best way to achieve sports organisational goals and objectives. From Banji's (2006) view, it is the process of integrating the objectives and activities of the separate units so as to effectively and efficiently achieve pre-determined goals. However, for an effective coordination, communication is very important and essential because through communication, the type of and a particular

coordination is passed up and down the hierarchical lines for the purpose of achieving set goals within the organisation (Banji, 2006).

In addition, Olagboye (2004) sees communication as the process by which views and information are exchanged between individuals and groups of individuals within any setting (such as sports). Communication, which is the process of transmitting information and common understanding from one person to another (Lunenburg, 2010) can be understood using a very simple model where the speaker or writer or signer sends a message (either text, voice, video, among others) through a particular medium which may or may not be received and interpreted correctly. Usually it is a two way process between the sender and the receiver: the sender sends a message and the receiver receives and becomes the sender when the first individual that sends the message becomes the receiver and this goes on until their purpose for communication is achieved. With regards to sports administrators, messages can be communicated to other staff and athletes using specific mediums such as ICT.

Reporting: Reporting is referred to as appraising, evaluating or controlling. It involves setting of standards of performance in any organisation which may include sports organisations. It also involves measuring and comparing actual performance with set standards, and taking necessary actions to correct performances that does not meet up to the set standards (Olagboye, 2004). Reporting ensures that sports activities are tailored towards sports organisation's set goals and objectives by sports administrators (Banji, 2006), and it connotes supervision in that, directive is given on how an exercise should

be conducted and should be reported in order to see whether it is effectively done or not.

Budgeting: Budgeting implies the control of financial activities or funding of the sports organisation (Banji, 2006). In practice, this is more herculean because of various challenges and factors that affect the effective management of such financial aspect of the sports organisation. This include receiving, purchasing and distribution. It is planning being stated in financial terms. Without adequate funding, any system such as sports organisation and its management will be hampered (Banji, 2006). Thus one can affirm that budgeting or financial planning in sports organisation is a sine qua non for the success of the organisation.

From the afore-mentioned elements, this study drew nutrients from the studies of Gulick and Urwick (1937), Fayol (1949) and Koontz and Weihrich (1994). Although, studies with respect to administration are treated on general terms in the economy, there has not been much work narrowing it down to sports administrators- this is a major gap this study seeks to fill. In addition, the use of ICT for administrative activities is another area this study seeks to pay attention to as studies in this regard are also porous. To this end, this study seeks to investigate the use of ICT in sports administrative activities among sports administrators in state sports council in Nigeria.

2.4.10 Role of Sport Managers in Sports

The noteworthy role of sports managers in sports cannot be overemphasized (Daniel, 2015). According to Douglas (2001), management is perceived to be a process of working with and through others to achieve organisational objectives in changing

environment. Managers are known to manage organisations and the resources within the organisation to at least achieve organisational goals and objectives. Management is also seen as a process undertaken by one or more individual (who is/are managers) to coordinate the activities of others to achieved results not achieved by one individual acting alone. Within the context of organisational study, Douglas (2001) outlined major management activities to cut across maximizing the utilization of available human and physical resources thus leading to high elastic productivity and performance of the business, developing friendly relationships, ensuring better welfare of employees such as providing necessary incentives that could motivate them to work towards, and committed to the organisational goals and objectives, thereby, contributing to the productivity and profitability of the enterprise in question. Other activities of a manager are to facilitate the introduction of new technology that could enhance business activities and performances and bringing and deploying useful technological developments for overall efficiency of the business enterprise.

With respect to sports, Tollison (2008) noted that, management of sports is concerned with business aspects of sports and recreation. This implies that sports managers should think business-wise when holding the post of a manager in any sports organisation. According to Daniel (2015), sports administrators play an important role in the success of the sports programme, and Oyedele (2000) stated that, they provide leadership and promote public relations. The efficient management of any sports programme depends mostly on sports administrators as they promote understanding and working relationship among the different individuals to achieve the goals of the organisation or institutions they work with (Oduwaye, 2000). Sports administrators

have the responsibility of planning, organizing, directing, coordinating budgeting and evaluating the programme. They are known to have adequate and appropriate qualifications and experience to efficiently and effectively manage, coordinate and supervise sports especially among athletes and to enhance their performance (Amuchie, 2000).

According to North (2009), sports management is a unique process involving the combination of skills of manager related to planning, and evaluating within the context of an organisation or department, whose primary product or service is related to sports. Thus according to Tollison (2008), it deals with the business dimension of sports activities and according to Kotter (2002), it involves effective integration of element of management skills, knowledge and experience. This means that skills, knowledge and experience are major pre-requisite for managers to effectively become successful in their responsibilities. To this end, sports managers ensures that sports activities are properly conducted, coordinated and supervised to ensure success without which resources will be wasted (North, 2009). In summary, Daniel (2015) defined sports management as the integration of element of management which could include knowledge, skills, and attitude, among others in order to achieve success in sports. Thus, one can affirm that, the success of sports managers are being affected by an elastics array of factors such as knowledge, attitudes, and skills, among others. On a more specific note, Daniel (2015) defined a sports manager as the personnel who is trained and is charged with the duty of managing sports at any level. In simple form, sports managers perform management functions at different levels of sports.

According to Jain (2005), the type of personnel and administrative style adopted by sports administrators may influence athletes' participation or withdrawal from sports participation. Thus, one can affirm that sports administrators can influence many activities in any sports organisation. Also, the participation in sports by an average athlete may be influenced positively or negatively by the sports facilities which in this study refers to ICT, equipment, personnel, and degree of funding of sports (Orunaboka & Ihekweme, 2011). Howe (1981) stated that sportsmen and women generally exhibit high sports achievement due to the presence of adequate available facilities such as ICT. It is pertinent to note that the effectiveness of sports administrators can also be re-enforced by deploying and using ICT for managing activities in sports organisations. This also is supported by Orunaboka and Ihekweme (2011), who stated that adequacy and attractiveness of facilities such as ICT for sports activities management, qualified sports personnel which include sports administrators, good sports facilities and maintenance culture and adequate funding of sports have influence on the degree of athletes' sports involvement and participation.

Furthermore, sports administration is essentially a service activity or tool through which the fundamental objectives of sports may be fully and efficiently realized (Olagboye, 2004 and Banji, 2006) and the purposes of sport administrator are many and they include:

- Provision of adequate services,

- Equipping officials and agents as much as possible with the knowledge, which they need throughout their careers in the numerous posts they may be called to occupy,

- Helping to formulate and implement policies through its laid down principles and practices,
- Establishing co-ordination among all agencies and stakeholders of sports services and
- Co-ordinating both the human and material resources available towards achieving the sport's goals and objectives.

2.4.11 Knowledge of ICT use in sports in Nigeria by Sports Managers in Nigeria

Knowledge is the process of knowing, through information, understanding or skill that one gets from experience (Edinyang, Odey and Gimba, 2015). More so, it is the sum of what is known; the body of truth, information and principles acquired by humankind. In this study, and with regards to knowledge of ICT use in sports, it refers to knowing the usefulness of ICT in sports management practices. According to the Qualifications and curriculum Development Agency (2010), knowledge in the use of ICT in sports cuts across being aware of various ICTs and their usage, such as its use in research, use of the Internet and DVD, use of word-processing/desktop publishing/presentation/spreadsheet software; communicate and exchange information such as email and web-based methods; use of digital cameras/video and video editing; and upload files such as web-based mediums, presentations, applications, among others.

However, knowledge on its own is useless except it has a real life, practical value (Edinyang *et al*., 2015). According to Horton (1979) cited in Omiunu (2012), the value of knowledge is zero when it has not been used to reduce uncertainty or to solve a problem. Tiamiyu (2005) states that, the more knowledge is being used continually over

time, the higher the total accumulated value derived from such knowledge. In other words, knowing and being familiar with ICT that could be used in sports will be baseless, and of no essence if there is no aim directing the process towards its use (Edinyang *et al*., 2015). To this end, amongst the vast ocean of available knowledge, there is need for the knowledge to be integrated to meeting desires. According to Stehr (2001) cited in Edinyang *et al*. (2015), knowledge entails the capacity to act. To this end, one can affirm that knowledge of the use of ICT in sports could affect action towards actual deployment and use ICT in sports especially with regards to sports administrators in Nigeria. To this end, this study tends to investigate how knowledge in the use of ICT in sports could influence the use of ICT among sports administrators in Nigeria.

2.4.12 Use of ICT for Management Practice by Sports Administrators in Nigeria

Daniel (2015) states that, practice is the act of repeatedly doing things which in this study refer to as the continuous use of ICT for sports by sports managers. According to Sally (2004), practice is an established way of doing things especially, one that is developed through experience, skill and knowledge. In addition, practice is a thing that is done regularly; a habitual practice generally involves doing things in a way that is consistent. Daniel (2015) defined practices as a consistent way of management in sports for high productivity. According to UNESCO (2008) the deployment and continuous use of ICT in sports is termed innovative practice which could also extend to

sports management practices. In extension, innovative practices and ideas in sports management by sports managers or administrators must be viewed from the perspective of the current status of sports which also include the global status and practices deployed. Sports administrators can be involved in diligently management practice that could enhance athletes training, prepare strategically, and compete vigorously through supervision by the sports managers (Ibrahim, 2016). In addition, management practice by sports managers deals with factors that contribute to effective sports management thus, one can see management practice as an umbrella construct which housed other constructs. This is because for sports managers to continue using ICT for sports management, such managers should be managing sports activities of notable organisations or departments which shows that such organisations or departments has better images in the community. For example, it is assumed that sports managers who are in smaller sports organisations may find it impossible to deploy and use ICT as compared to those sports managers who manage big sports organisations or large range of athletes.

According to Ibrahim (2016), there are some important activities which could also include the deployment and use of ICT for training and management practice that could enhance motivation in sports activities. However, the ICT deployed and used must be relevant to the sport in question. Also, such ICT deployed and used continually must created an impetus, have a lasting effect on the sports activities of the organisation or body and also yield better results than the traditional form. To this end, one can deploy the Technology Acceptance Model (TAM) 2 of Venkatesh and Davis (2000). From this view, it can be assumed that for any sports manager to continuously deploy

and use ICT in sports management practices, such manager or organisation such manager belong to should have had a better image, see ICT as relevant to achieving sport goals and must have seen ICT as producing better output and result. Also, according to Tollion (2008), sports managers' practices deal with the different parameters that contribute to the growth of sports. These parameters are, but not constrained to finance, personnel, facilities, equipment, motivation and athlete's participation in sports activities. To this end, it fits to draw attention to the fact that these management practices in Nigeria are still deploying the traditional method in their management practices (Spacey *et al*., 2003) and this is a major shortcoming that could affect the management practices of sport managers especially in Nigeria. This is one major gap this study seeks to fill.

2.4.13 Attitude towards the use of ICT for Sports by Sports Administrators in Nigeria

Attitude measurement towards the use of ICT has been shown to be informed by a specific understanding of the relationship between attitudes and behaviour as proposed by Fishbein and Ajzen (1975) in the theory of reasoned action (TRA). The theory of reasoning action posited that an individual's behavior is feeling or way of thinking that affects a person's behaviou, which ought to have been used by sports administrators is determined his/her intention to perform. Also, both the behaviour and the intention are influenced jointly by the individual's attitude and subjective norm – a measure of how people are influenced by their peer's opinions. According to Eguavoen (2011), attitudes play important part in affecting behaviour and must, therefore, be taken into consideration in management which include sport management, especially during processes of change and innovation (Spacey, Guilding and Murray, 2003) which in this study referred to as the transition into the deployment and use of ICT for sports activities.

According to Spacey, Goulding and Murray (2003), attitudes, especially positive attitudes, are assumed to be fundamental in the acceptance, implementation and success of new technologies such as the deployment and use of ICT in sports activities by sports managers. The perspectives of potential users of technology can be expressed in terms of their attitudes and dispositions towards ICTs or their attitudes to change to the deployment and use of ICTs major activities thus changing the traditional methods in which sports administrators perform their activities in ensuring supervision of athletes (Spacey *et al*., 2003). For successful deployment and use of ICT, there is need for

positive attitudes towards such innovations of ICT (Evald, 1996). The application of this to sport management is that sports administrators would have positive attitudes towards the use of ICT to enhance it's use in sports activities especially in Nigeria where attitudes towards innovations are somehow challenging. Davis (1989) in the Technology Acceptance Model (TAM), hypothesized that, attitude influences behavioural intention to use, and subsequently the actual use of ICT in sports activities by sports administrators especially in Nigeria. Although, in most occasions, positive attitudes towards ICTs do not necessarily mean that such individual would use ICT, Dillon and Morris (1996) affirmed that an individual such as a sports administrator could hold negative attitude to a system (such as ICT), but could still use it because it is perceived high usefulness with emphasis to sports or to sports administrators.

According to Daniel (2015), attitudes need to be worked on by sports administrators to motivate them to perform acts which include the deployment and use of ICT in sports activities. Several techniques or methods are used to motivate and influence the attitudes of athletes to successfully participate in sports programmes and in extension use ICT for sports activities. According to Ajayi (1994) cited in Daniel (2015), incentives constitute one of the means to motivate and influence the attitudes of athletes towards performing optimally in sports. This includes the deployment and use of ICT. Udensi (2000) stated that most sports officials which include sports administrators and even athletes in Nigeria are not very active in sports and also in the deployment and use of ICT in sports mainly because of their attitude and the morale of players, the condition of the facilities and equipments which include the conditions of ICT that is needed to be used for sports, and ineffective participation in the management

of sports programmes. The provision of incentives (which offcourse could mean the provision of various ICTs to be used) for sports for athletes and officials (which include sports administrators) would ensure effective participation of athletes and officials in sports programmes that would contribute to the development of sports (Daniel, 2015). This could influence the attitude of sports administrators and athletes in sports participation and management- thus the need to understand the attitudes of sports administrators towards the deployment and use of ICT among sports administrators in Nigeria. Thus far, there are little studies with respect to sports' management attitudes and their use of ICT in Nigeria- this is a major gap this study seeks to fill.

2.4.14 A General View of Information and Communication Technology Deployment in Nigeria

Information Communication Technology deployment and use involves the ways individuals which include sports administrators plan and manage ICT to benefit from its potentials and effectiveness. ICT refers to information and communications technologies such as computers and the Internet, as well as fixed-line telecommunications, mobile phones, other wireless communication devices, networks, broadband and various specialised devices ranging from barcode scanners to global positioning systems (Ministry of Economic Development, 2004). It also cuts across the use of various hardwares and softwares (UNESCO, 2002; Thomas and Stratton, 2006 and Lightfoot, 2010). It is perceived as a tool for making work easier which in this study could mean making sports administration work easier (Van Akkeren and Harker, 2003). ICT can improve critical thinking, information handling skills, the level of conceptualization, and problem-solving capacity (Bransford *et al*. 2000).

In addition, Van Akkeren and Harker (2003) in their study outlined a four-stage ICT adoption/deployment process which also cuts across its adoption in sports. They include: No ICT adoption, basic ICT adoption, intermediate ICT adoption and advanced ICT adoption stages. In the "No ICT adoption" stage are individuals or sports administrators who have not adopted any ICT other than the traditional landline phones or a simple cellular or mobile phone. The "Basic ICT adoption" stage includes individuals or sports administrators who have adopted ICT such as the Internet for collecting or sourcing for information which could also include its use for obtaining videos of past competitions and playing it for athletes to learn and improve their skills and professionalism, use email, or use the latest cellular phones (such as the 3rd Generation, 3G) to send/receive emails and access the Internet. The "Intermediate ICT adoption" stage includes individuals or sports administrators that have a basic/static website and that are engaged in electronic commerce while the "Advanced ICT adoption" stage include those that conduct transactions electronically, or have any complex ICT integration in their processes which include sports management.

The National Agency for Information and Communication Technologies (2008) has concluded that despite the substantial efforts undertaken so far, the level of ICT mastery in an emerging knowledge-based society in Sub-Sahara African countries such as Nigeria still remain very low which could also cut across its deployment and use in sports and that it may not be able to guarantee adequate training in the mastery and usage of ICTs by the citizens of the country which also cut across sports administrators.

2.4.15 Use of ICT in Sports by Sports Manager in Nigeria

ICT is regarded as an engine for growth and tool for empowerment, with profound implications for change in economic and social development which cuts across sports (Davis, 2003). Its essential requirement for survival and progress in the 21st century made Davis (2003) to suggest that it should be exploited by developing countries such as Nigeria to participate meaningfully in the global digital-enabled economy. In particular ICT advancement enables Nigeria to drive inclusive national development and growth by tapping into the benefits derivable from the exploitation and deployment of ICTs (Edinyang *et al*., 2015). Globally, there is an increasing pressure in the use Information and Communication Technology (ICT) and every nation and their different sectors are deeming it fit to inculcate and deploy ICT to enhance their performance (Omwenga, 2007). Ajiferuke and Olatokun (2009) state that, few countries like China, USA, U.K., India, and Brazil are successfully taking advantage of the opportunities Information Communication Technologies offer and have made significant improvements in their economic achievements including sports. In addition, many more developing countries, including Nigeria, are beginning to derive some of the potential benefits that ICT provides for development. It is also stated that, Nigeria, like most developing countries, is an "information-poor" country where the deployment and application of ICTs is still in its infancy (Ajiferuke & Olatokun, 2009). Onasanya**,** Shehu**,** Oduwaiye and Shehu (2010) and Twinomujuni (2011) affirmed that, in practice, the use of ICT is relatively low and it is focused on a narrow range of applications, with word processing being the predominantly used especially in developing countries such as Nigeria.

According to Anmol (2014), ICT can be helpful and used by sports directors, administrators and for sports. There are many good options available to sports administrators in regards to ICT which incorporates a vast array of hardware and software. Anmol (2014) furthermore, suggested the following ICTs for use in sport planning, administrative and teaching purposes:

Pedometers: This ICT is also called step counters and is a mechanical sensor used to count steps and can easily be incorporated in sports classes to address motivation, assessment, and advocacy. Furthermore, pedometers are portable and can be worn under the belt and be kept the whole day. In recent times, it has become a recognized and acceptable tool for measuring sporting activity.

Heart Rate Monitors: Based completely on the athlete's ability level and current level of fitness, the heart rate monitor makes training more individual centered. According to Bian, Partridge, King, Andon and Boyer (2007) cited by Anmol (2014), Heart Rate Monitors provide immediate feedback that can make athletes work harder to improve performance. As fitness level increases, athletes feel that their cardiovascular system is working and can set individualized goal to work more effectively, thus enhancing performance.

Digital Video camera and visual analysis software: The use of motion analysis system will surely enhance many areas of sports activities which also include research and teaching. Also, using digital video camera has indeed simplified the collection of data and such results can be imported to carry out interactive multimedia presentation to provide athletes with better understanding and can thus enhance their skills and performance (Ladda, Keating, Adam and Toscana, 2004 cited by Anmol, 2014). The

visual analysis is a software that allows athletes to view captured movement and to analyse them. This particular technology can help sports administrators to control athletes' progress towards motor skills goals; provide feedback opportunities and assess their development skills over time (Fiorentino and Castelli, 2005 cited by Anmol, 2014). Using digital video camera to record athletes' performance in major sports such as table tennis for example, can be a useful tool to help them improve their skills and techniques. With the addition of motion analysis software, pupils have a professional supportive tool.

Simulation and Games: Games such as Dance, Dance revolution, Fx cycles and Nintendo Wii Fit provide opportunities for athletes to be physically active and simultaneously enjoyed themselves. These games can also be combined with other ICTs to enhance the experience (Di Giorgio, 2004 cited by Anmol, 2014). With regards to the Nintendo Wii Fit game, work-outs are done on a small balanced board where gamers stand on and players receive instructions from the screen and mimic the stretching and muscle building exercises. In reality, this can assist athletes' skill and stamina development.

Internet: This refers to global network providing the capability to communicate, share ideas and access information and resources from around the globe. It can be used by sports administrators to access information relevant to athletes' development. Also, various sports have been uploaded on the internet and information relevant to specific sports administrative problems can be obtained from the internet. Sports administrators can use this medium as a channel to obtain a wide array of past sports and information to enhance skills development and performance among athletes.

Intranet: This is similar to the Internet, but is constrained to information from within the organisation. CD-ROM Information can be presented in the form of graphics and texts with sounds and moving videos.

Data handling: Information can be stored in a database which can be deployed and used by sports administrators.

Desktop publishing: A combination of texts, graphics and layouts to produce a document. Presentation software: For example, Microsoft PowerPoint software can display information in slide form.

Bocar and Biong (2015) stated that the internet and social network sites like skype, facebook, youtube, and mobile phones are ICTs that bring convenience and expediency to people's activities today which also cut across athletes and sports activities. Furthermore, Bocar and Biong (2015) affirmed that, there are three types of ICTs utilized for sporting activities and these include: internet, mobile phones and social network sites. From Bocar and Biong's (2015) study, approximately 30% of who use mobile phones and social networks for more than twelve hours in a day. Also, time spent in the use of ICTs affects users recreational, social and sports activities to a great extent. According to Trucano (2005), the use of ICTs creates and allows sports administrators to have the opportunity to develop their creativity, problem-solving abilities, reasoning skills, communication skills, and other higher-order thinking skills. Furthermore, use of ICT in sports by sports administrators also includes use of stopwatches, wristwatches heart rate monitors and computer programmes for recording performances, in games it includes video analysis of individuals for assessment so that comparisons between individuals and groups can be made. In gymnastics, it entails

preparation of flash cards demonstrating correct techniques and video performances etc; in outdoor pursuits it include the use of videos and cameras for presentations, storage or orienteering records on laptops for portable use, mobile phones and walkie talkies for emergencies; in dance, it involves use of videos and cameras for presentations and assessment; interactive tests – e.g. basketball; and interactive resources – e.g. skeleton. In their study on adoption and usage of ICT in developing countries, Ssewanyana and Busler (2007) stated that, the usage of computers and internet is high in medium and large firms, and especially firms owned by foreigners. When one narrows it down to sports organisations, does this holds? Thus, one would be propelled to investigate the differences in ICT usage between large and small sports organisations; or rather how would sports administrators in a small sports organisation view the use of ICT in sports activities or running their activities compared to those in big sports organisations?

Twinomujuni (2011) affirmed that, in most cases small organisations which include small sports organisations which are mainly locally owned, have low usage of ICT due to the high cost of required investment and limited knowledge and skills. This could be one of the major reasons why local sports cannot be compared to international sports. According to Ramzan (2004), users of ICT such as sports administrators in developed countries moved quickly to learn and adopt new information technologies such as computers, softwares, CD-ROMs, emails, Internet networks and other information management and communication technologies than those in developing countries. Reasons for these were stated as low level of knowledge of new information technologies, lack of professional training, poor equipment such as ICTs with insufficient hardware, inappropriate software and ineffective technology-based

materials (Ramzan, 2004). In addition, Twinomujuni (2011) noted that, people do appreciate the contribution of ICT to the performance of their firms which could involve sports organisations and sporting activities, but the various barriers such as high costs of hardware, software, and Internet and ICT professionals among others are a hindrance to their progress.

Earlier studies (Akpe, 1995 and Daniel, 2015) have revealed that the provision and availability of standard facilities and equipment such as ICT for sports and sporting activities are essential requirement to motivate athletes to participate and improve performance in sports. For example, Akpe (1995) noted that the inadequate provision of sports facilities and equipment which also cut across ICT facilities affects not only participations in sports but also in the performance on sports. It has been postulated that even when these ICTs are to be provided, they must be perfect and of good condition because as stated by Daniel (2015), the provision of cheap and substandard facilities and equipment can discourage participation in sports. To this end, adequate facilities and equipment such as ICT are essential for successful participation to achieve the objective of sports programmes. However according to Udoh (1990), there is need for maintenance of sports facilities and equipment such as ICT so as to ensure sustainability of use in sports. Therefore, adequate provision and maintenance of sports facilities and equipment such as ICT can enhance the interest of sports directors and athletes and thus enhance sports performance and participation. Thus, the need for this study if Nigerian sports must come out from it low level state to compete at global level. This study seeks to investigate major factors that influence the use of ICT in sports by sports administrators in Nigeria.

2.4.16 Challenges of ICT use and Deployment in Nigeria: A General Perspective

Barriers that militate against the successful implementation of ICTs in various aspects of the Nigerian economy can include: the cost of ICTs; lack of time to devote to the implementation and maintenance of ICT; lack of ICT knowledge combined with difficulty in finding useful, impartial advice; lack of use of external consultants and vendors; short-range management perspectives; lack of understanding of the benefits that ICTs can provide and how to measure those benefits especially with respect to its deployment and use in sports, and lack of formal planning or control procedures (Igbaria and Tan, 1997). In addition to these many individuals and sports administrators are unaware of the potential of its use to enhance their sports activities; some individuals or sports administrators occupy clearly defined (and small) niche markets that they are satisfied with and don't want to dive into global perspective; there are still perceptions of unresolved security and privacy issues related to use of the Internet; many individuals and sports administrators lack the necessary skills base to engage in the digital economy; the perceived high initial and ongoing costs associated with ICTs and its use in constant training and practice in sports can all be seen as barriers. Also, many individuals and sports administrators cannot experiment with ICT investments like larger individuals or sports administrators in most developed economies. Furthermore, the lack of understanding of the benefits of ICT by individuals, including sports administrators, can also serve as barrier to ICT deployment and use (Apulu & Latham, 2009).

Moreover, the drivers of ICT are broad, as they are very important because they influence the tendency for individuals or sports administrators to deploy and use ICTs.

According to Thong, Yap and Raman (1997), they include: the involvement of managers in the implementation of ICTs especially with regards to sports; the involvement of users which in this study could cut across sports administrators and athletes in development and installation for example, of major software which could be of major importance to sporting activities. Also, there is need for the training of users which include sports administrators; the use of disciplined planning methodologies in setting up applications: the number of analytical/strategic (versus transactional) applications being run: the level of ICTs expertise within the organisation which also include sports organisation; the role of the external environment, among others.

Also, Mehrtens, Cragg, and Mills (2001) outlined, some other factors organisations which include sports organisations must identify to be able to use and deploy ICT. These are: identifying perceived benefits, organisational readiness and dealing and coping with external pressure. In addition, of importance to ICT deployment and use in an organisation which also include sports organisation is the managers which include sports managers' perception and exposure, the location of the sports organisation, the differences between industries (sports sector) and users' skills level and training. According to Van Akkeren and Cavaye (1999) in Manueli, Latu and Koh (2007), the factors that influence IT adoption are divided into three: managers (sports managers) characteristics, firms (sport organisations) characteristics and the firms return on investment. The firm/sports organisations characteristics include: the organisation's ICT readiness; external pressure to adopt; customer/supplier dependency; structural sophistication of the sports organisation; its size, sector and status (this time the sports sector); and its information intensity. The organisation's ICT readiness refers

to its current level of technology use in its sporting activities or processes. Little or no technology use reflects low ICT readiness and a strong reluctance for ICT adoption. External pressure may come from external environment for ICT adoption. The structural sophistication of the firm/sports organisation refers to its ability to incorporate ICT into its existing business processes which include the sports organisation's sports activities and process which could include its uses in training and practicing.

Windrum and de Berranger (2002), in his own view outlined the contributing factors that influence ICT adoption. They categorised them into five major clusters that include: the business characteristics, business action, system characteristic, internal expertise and external expertise. Business characteristics such as size, determines the organisation's structure that in turn strongly influence its ICT uptake. Small sports organisations may have simple structures when compared to bigger sports organisations and may have less internal requirements for extensive information and communication technologies. Typically, business action is driven from the top management. In this case, if the top management such as include sports administrators establish appropriate ICT goals, identifies critical ICT for sports needs, and there are allocation for financial resources, then ICT adoption could be possible. For small sports organisations, age and the experience of the sports administrators strongly influences ICT adoption. System characteristics within a sports organisations assist in ICT adoption. In addition, access to ICT expertise within a business which also include sports organisations and externally are another contributing factors to ICT adoption. If the owner of such sports organisation or the sports administrator is ICT literate, there would be a strong tendency for adoption of ICT for sporting activities (Windrum and de Berranger, 2002 in

Manueli, Latu and Koh 2007). There is thus an argument on whether demographic characteristics of sports administrator (such as sports organisations characteristics, its action, system characteristic, internal expertise and external expertise) pose challenge to the deployment and use of ICT- thus a gap this study seeks to fill. Also, studies on the deployment and use of ICT has been approached thus far on a general view and from other sectoral activities such as SMEs, hospitals, schools, among others, but its deployment and use among sports administrators and in sporting activities remains a fertile ground to explore- this is another important gap this study seeks to fill. To this end, this study seeks to dive into investigating the use of ICT among sports administrators in Nigeria.

2.5 Empirical Review of Related Literature

Sports Administrators' Knowledge and information and communication technology usage

Knowledge holds a key position in application and use of ICT. Bozbura (2007), in his study on Knowledge management practices in Turkish SME, noted that knowledge is a major factor that influence use of ICT. Omiunu (2015) found that information awareness which in this study refer to as knowledge in the use of ICT for sports could influence actual use which in this study also refers to the use of ICT in sport by sports administrators in Nigeria. The significance of knowledge in any organisations including sports organisations from which the sports administrators belong is well reflected in the related art literature. According to Ololube (2006), knowledge of ICT use and actual use of ICT are becoming integral part of many

activities in many parts of the globe. Also, studies such as UNESCO (2012) and Okolije (2015) have found that, insufficient knowledge of appropriate software and insufficient knowledge and skills on how to use ICT equipment, lack of knowledge of how to evaluate the use and the role played by ICT in major sectoral activities such as deployed by sports administrators is a major factor hindering use of ICT by users which includes sports administrators in Nigeria. Also, the Qualification and Curriculum Development Agency (2010), in their study, ICT on sports and active leisure principal learning states that, ICT knowledge and understanding which cuts across in research (Internet, CD/DVD), use of key words and phrases, use of word-processing/desktop publishing/presentation/spreadsheet software, among others, can affect ICT use. This can also cut across its use among sports administrators in Nigeria.

Bocar and Biong (2015) stated that, the relationship between knowledge of ICT and use of ICT is reversible as the use of ICT by user which cuts across the sports administrators can also influence knowledge of ICT use. Thus, one can conclude that while knowledge of ICT can affect use of ICT; the use of ICT can also affect knowledge of ICT among users which include sports administrators in Nigeria. To this end, Bocar and Biong (2015) affirmed that ICT can be utilized as a tool to support knowledge construction, a vehicle for information, medium for socialization, and a partner to gather intelligent ideas. However, in this study attention is given to ICT use among sports administrators in Nigeria. This means that the more sports administrators deploy and use ICT for their activities, the more knowledgeable they become in the use of ICT for sports activities. Such knowledge in the use of ICT among sports administrators include cameras, mobile phone cameras, motion analysis softwares, film

editing, portable media players, interactive whiteboards, voice projection systems, developing functional skills through physical education, games consoles, nintendo Wii Fit, dance mat systems, pedometers, pupil response systems, archos, use of iPods, podcasting, virtual Learning Environment (VLE), video conferencing, youtube, among others.

Also, sport directors possession of knowledge of ICTs such as knowing how to process information word to all staff in advance of events; display using publisher – promote athletes self-esteem and also provide quality environment; provide template in ICT which could be in power point for lesson plans and schemes of work; ICT can be used to assess, record and report on progress of athletes on teaching practice. Mooij and Smeets (2001) in their study, investigated the implementation of ICT and its support within a system in Holland and found that competence and confidence in users' skills were one of the main factors that influence ICT implementation and willingness to integrate technology in their activities and processes. In addition, Mooij's and Smeets' (2001) study revealed that, lack of knowledge of ICT use and deployment is a serious hindrance to the integration ICT into any system or organisation which could cut across its use in sports activities. Moreover, Albirini (2006) established that ICT competence as mentioned by Mooij's and Smeets' (2001) study, does not only comprise of ICT knowledge but also cuts across the skills and experience essential to put them into use which in this study could refer to as the putting of ICT knowledge into use in sporting activities or in managing sporting activities by sports administrators especially in developing countries such as Nigeria. Twinomujuni (2011) noted that, skills of knowledge development cuts across special ability (or expertise) enabling one to

perform an activity by using a computer efficiently and its related peripherals in performing activities which include sports activities. In addition, there are numerous problems related to ICT infusion among users which include sports administrators due to the lack of technical skills and knowledge of maintaining the functionality of various ICTs and their components (Twinomujuni, 2011).

Harmonizing the studies of Mooij and Smeets (2001), Ololube (2006), Albirini (2006), Bozbura (2007), Qualification and Curriculum Development Agency (2010), Twinomujuni (2011); UNESCO (2012), Omiunu (2015), Okolije (2015), and Bocar and Biong (2015) with this study, it could be observed that, although these studies assisted in giving this study bearing and focus, not much was done in respect of the relationship between knowledge in the use of ICT in sports activities or sports management by sports administrators especially in Nigeria- this is a major gap this present study seeks to fill.

2.5.1 Sports Administrators' Management practices and information and Communication Technology Usage

Practice in this study refer to the sports management practice which according to Daniel (2015) deals with the ways of managing sports and sports activities for success. Sports management practices are indices used to enhance the development of sports. However, facilities such as ICT as stated by Tollison (2008) can enhance sports management practices. According to Tollison (2008), sports management practices are factors that enhance sports and achievement of stated objectives in sports organisations. Sports management practices include finance, sports facilities, sports equipment, sports personnel, athlete's motivation, student's participation, among others. In addition,

effective sports management practices enable sports managers and administrators to efficiently run sports organisations on sports, for success and improvement. A pertinent aspect to note is that, ICT could be deployed and used to enhance these sports management practices among sports administrators especially in developing countries such as Nigeria. According to Daniel (2015), standard facilities and equipment such as ICTs are essential requirements in enhancing sports management practices and motivate them to improve performance in sports. However, inadequate provision of sports facilities and equipment such as ICT would not only affect sports participation but also performance in sports. This shows that ICT is a strong tool or factor that can affect sports management practices among sports administrators in Nigeria. Also, Daniel (2015) found that, availability of sports and equipment facilities enhanced the growth and development of sports management practices.

Ojo (2005) cited by Ibrahim (2015) noted that, such facilities which include ICT provision can provide administrators with the opportunity to use it for management practices to enhance their skills and help enhance participation and performance. Thus, there is need for the provision of various ICTs for sports administrators to enhance their practices. Earlier studies such as Olorunsola (1999) affirmed that, the extent to which the existing facilities and equipment are provided and made available, which include ICT as used in this study, should meet the peoples' preferences; more importantly this will help the management which in this study is referred to as sport administrators to identify the current needs for facilities, programmes, and personnel management such as the athletes. To encourage the application of ICTs in sports especially among sports administrators, Bernard, Stephen and Williams (2000) cited by Ibrahim (2015), opined

that audience or spectators need to be discouraged from attending any organized sports events which does not have sports facilities. Also, Ibrahim (2015) noted that it is expedient for sports administrators to provide quality equipment and facilities such as ICT so as to serve as motivational factors which could also affect attitude and thus enhance job performance which could also include management practices.

In a more specific term, Heidary, Honary and Behjanat (2014), in their study on the role of Information and Communication Technology in sport change management stated that various private soccer clubs and national teams practice with every tool possible (ICT tools inclusive), to enhance their athletic teams. Of course, Information and Communication Technology is considered as the most effective tool in our time. So it seems very logical that in the near future, sports experts such as sports administrators would apply ICT to increase capacity and improve results. Also, Heidary *et al*. (2014) forecasted that in the next five years, we will hear in the second decade of this century some widespread expressions like E-soccer and E-sport. Harnessing the works of Olorunsola (1999); Bernard, Stephen and Williams (2000) cited by Ibrahim (2015); Ojo (2005) cited by Ibrahim (2015); Heidary *et al*. (2014); Daniel (2015); and Ibrahim (2015), it has been revealed that ICT enhances management practices. Although, these studies gave a clear background and foundation on which this study is to be built, nevertheless, the direction of interest of the variables of interest in this study assumes that sports management practices influences the use of ICT among sports administrators in Nigeria. This is a major gap this study seeks to fill.

2.5.2 Sports Administrators' Attitude and information and communication technology usage

There seems to be a relationship between attitude towards use of ICT and actual use: however, whether the relationship is positive or negative relationship can only be explained by literature. For example while some studies give no directional influence of their relationship, others tend to provide whether such relationship existing between them is either negative or positive. For example, Bozbura (2007), in his study, Knowledge management practices in Turkish SME, noted that attitude towards the use of ICT is a major factor that influence use of ICT. In the developing countries such as Nigeria, attitude could be so important (Omiunu, 2015) because according to Harrell (2005), attitude is everything. This also cuts across attitude towards the use of ICT in sports by sports administrators in Nigeria. In addition, Omiunu (2015) found that, attitude towards use could influence actual use which in this study refers to the use of ICT in sports by sports administrators in Nigeria.

According to Yusuf and Balogun (2011), Ahmad (2015) and Isiyaku, Ayub and Abdulkadir (2015), attitude towards the use of ICT has significant effect on use of ICT irrespective of organisation. Thomas and Stratton (2006), found a positive attitude towards the use of ICT among users which could cut across sports administrators and include its use to monitor, assess, record, and report in physical education which also include sports activities. Although, the study of Thomas and Stratton (2006) did not show how this could affect use of ICT, the work of Ahmad (2015) revealed that attitude towards the use of ICT can have significant effect on use. This could be why Eguavoen (2011) affirmed that, due to the continuing innovations in new ICTs, there is need for users such as sports administrators in developing countries like Nigeria to develop

positive attitude towards the application of ICT to various activities in their profession such as those included in this study- implementation of ICT in sports management activities among sports administrators in Nigeria. In addition, Eguavoen (2011) noted that there is a significant relationship in the attitudes of user toward the use and application of ICT in specific professions which can also include sports management activities among sports administrators in Nigeria.

With regards to negative attitude, Ahmad (2015) affirmed that, nonchalant attitude towards ICT development do constitute significant problem to its implementation especially in Nigeria. Also, the findings of Ntshakala and Obono (2013) showed the prevalence of negative attitudes towards sports in most developing countries such as Nigeria as people tend to pursue more of academic related performance to neglect the aspect of sports. This could also serve as major factor that could affect the attitude of sports administrators towards the deployment and use of ICT to enhance management of sports in developing countries such as Nigeria.

It is also pertinent to draw attention to the fact that harnessing the findings of Thomas and Stratton (2006), Bozbura (2007), Yusuf and Balogun (2011), Eguavoen (2011), Ntshakala and Obono (2013), Ahmad (2015), Isiyaku, Ayub and Abdulkadir (2015) and Omiunu (2015), it can be discovered that although these studies serve as basis where this study draws its strength, they are however centered on general views and also on other aspect of national economy such as SMEs, health, education, among others. With respect to the relationship between attitude towards ICT and its use among sports administrators in Nigeria, there is paucity of literature in this regard. Thus, the need for this study and a major gap this study seeks to fill.

2.5.3 Demographic Characteristics and ICT Usage

Studies have revealed that the demographic characteristics of respondents can be of importance when considering the use of ICT among a certain group of individuals which could also include sports administrators in Nigeria. For example, Okwudili (2015) found that, demographic characteristics of ICT users such as their occupation could affect their knowledge and use of ICT. According to Daniel (2015), experience influences management which also includes sports management and administration among sports administrators. This could mean that individuals with higher experience may tend to be more effective in their use of ICT for the management of sports activities. This could cut across the deployment and use of ICT for sports management as level of experience of sports administrators could influence a high tendency for such administrator to have an elastic knowledge of and deploy and use ICT in sports and management activities. Thus, experience of the sports managers as a major demographic characteristics play vital role especially in Nigerian sports (Daniel, 2015).

According to North (2009), experience in sports management provides sports managers with an edge over those without experience on the work. It exposes sports managers to the tips and tricks necessary for effective sports management which in this study could refer to innovations such as the deployment and use of ICT. Thus, it is important for sports managers and administrators to gain experience in sports management which could involve working in the sports and leisure industry as a fitness instructor or in an administrative role (Young, 2011). Also, the effect of demographic characteristics of sports administrators on their use of ICT in sports management activities could be low in developing countries such as Nigeria, but it is pertinent to

draw attention to the fact that such demographic characteristics of sports administrators could have elastic effect on their knowledge and use of ICT. This is one of the major gap this study seeks to fill.

To buttress the preceding fact, Haussmann (2007) stated that no country in the world has yet reached equality between men and women and could also cut across the use of ICT. For example, Broos (2006), Arnseth (2007), Selwyn (2007) and Smihily (2007) noted that in the field of technology which include the use of ICT among sports administrators, there are empirical evidences to suggest the continuance of male domination; men use computers and the Internet more than women, men have wider computer experience, spend more time online, report greater interests in and positive attitudes towards computer-related activities, and even appear to be more motivated to learn digital skills. According to Tømte (2008), this disparity is more obvious in developing countries such as Nigeria. To this end, it is important to draw attention to a major fact that if Nigeria must tap into the benefits of ICT, which include its benefits in the sports industry and its use in sports management activities, it is important to close such ICT gap with respect to important demographic characteristics. Thus, this is one of the major goals of this study.

2.6 Appraisal of Literature Review

The role of sports administrators in sports cannot be overemphasized. It has been reviewed that there is generally a low level of knowledge and use of ICT in Nigeria which also prominent among sports administrators. Also, attitude towards the use of ICT is not encouraging in Nigeria. This also cut across sports administrators in Nigeria. ICTs used in sports can be categorized into software and hardware and it is also

paramount to draw attention to the effect of demographic characteristics on the attitudes towards, knowledge and use of ICT. Although, studies on ICT use and attitudes, knowledge and managerial practices towards the use of ICT is scarce however, this helps to bring out the peculiarity of this study. This study seeks to investigate knowledge, practices and attitudinal factors as correlate of information and communication technology usage among sports managers in Nigeria.

The review of the literature concentrates on the important variables on which the study is hinged. These include knowledge, attitude and management practices. Consequently, the conceptual framework was developed to explain the interaction of the knowledge, attitude and management practice as the independent variables, with the dependent variable of Information and Communication Technology usage. In order to relate the study to existing models; Technology Acceptance Model 1 and 2 was adopted. The Technology Acceptance Model is a very popular theory used to vividly explain the acceptability of technology among individual or organisations which also cut across sports management in Nigeria.

The study also adapted Theory of Planned Behavior to correlate and explain Information and Communication Technology usage among sports managers in Nigeria. In this theory, it is assumed that behaviour towards Information and Communication Technology use among sport managers in Nigeria is determined by the individual intention to use such system: whether hardware or software. The study reviews some concepts on sports management, sports development at the global level and also in Nigeria. Literature on knowledge, attitude on usage of information and Communication Technology was also review.

The empirical review on the independent variables (knowledge, attitude and management practice) and dependent variable (usage of information and communication technology) were reviewed. Some of the reviews are on sport administrators' knowledge and information and communication technology usage, sport administrators' management practices and information and communication technology usage, Sports administrators' attitude and information and communication technology usage, demographic characteristics and ICT usage, knowledge and ICT usage, attitude and ICT usage and management practice and ICT usage.

CHAPTER THREE

3.0 METHODOLOGY

The chapter focused on the methods and procedures that were adopted in this study. It was discussed under the following sub-headings:

1. Research Design
2. Population of the Study
3. Sample and Sampling Techniques
4. Research Instrument
5. Validity of the Instrument
6. Reliability of the Instrument
7. Field Testing of the Instrument
8. Procedure for Data Collection
9. Procedure for Data Analysis

3.1 Research Design

Descriptive research of expo-facto type was used for the study. This is considered suitable because according to Fawole, Egbekhare, Itilola, Odejide and Olayina (2006) descriptive research design does not attempt to manipulate variable but describes variable and their relationship as they occur naturally. This research design enabled the researcher to interpret the relationships that exists among the independents and dependent variables. According to Polit and Hungler (1997), descriptive survey method helps to obtain a first hand or first class information regarding the prevalence, distribution, determinants and interrelationship of variables within a population. It could be used to collect information on people's action, knowledge, awareness, opinions, intention, attitude and values. This was supported by Thomas and Nelson (2001) who also stated that descriptive research design helps a researcher in the collection of information, identifying problems, making comparison and carrying out systematic evaluation.

3.2 Population of the Study

The population of this study comprised all sport managers in Nigeria.

3.3 Sample and Sampling Techniques

One thousand three hundred and fifty (1,350) male and female sport managers in the selected states from each geo-political zone (state sports councils, sports associations and staff of National Sports Commission) were sampled for the study, but one thousand two hundred and ninety-seven (1,297) were used. The multi-stage sampling procedure was adopted in this study. At the first stage simple random (fish bowl without replacement) sampling technique was used to select a state from each geo-political zones making six (6) states from the six zones.

At the second stage total enumeration was used to select all sport managers from selected state sports councils, sports association and National Sports Commission.

Table 3.1: States from the six Geo-political Zones

S/N	**Geo-political Zones**	**States**	**Selected States**
1	South-South	Edo, Delta, Bayelsa, Rivers, Cross Rivers, Akwa Ibom	Edo
2.	South East	Enugu, Imo, Ebonyi, Abia, Anambra	Enugu
3.	South West	Lagos, Ondo, Ekiti, Osun, Oyo, Ogun	Oyo
4.	North Central	Abuja, Niger, Nasarawa, Plateau, Benue, Kwara, Kogi	Abuja
5.	North West	Kaduna, Katsina, Zamfara, Sokoto, Kebbi, Kano, Jigawa	Kaduna
6.	North East	Bauchi, Borno, Gombe, Yobe, Adamawa, Taraba	Taraba

Source: National Sports Commission

Table 3.2: States Sports Council/ Sports Association/Directors/Deputy/ Directors/Secretaries/Coaches

S/N	States	Directors/ Deputy Directors	Chairmen	Secretaries	Coaches	Total
1	Edo	18	16	16	102	152
2.	Enugu	25	21	21	98	165
3.	Oyo	14	35	28	106	183
4.	Abuja	27	38	38	123	226
5.	Kaduna	16	35	32	113	196
6.	Taraba	21	26	24	87	158
Total						**1,080**

Source: States Sports Councils

Table 3.3: Sample States from Geo-political Zones in National Sports Commission

S/N	National Sports Commission in the Geo-political Zones (Selected States)	Directors/ Deputy Directors	Secretaries	Coaches	Total
1	South-South (Edo)	4	5	26	45
2.	South East (Enugu)	4	5	26	45
3.	South West (Oyo)	4	5	26	45
4.	North Central (Abuja)	4	5	26	45
5.	North West (Kaduna)	4	5	26	45
6.	North East (Taraba)	4	5	26	45
Total					**270**

3.4 Research Instrument for the study

Two research instruments were used to obtain information from respondents for the study and they are: a self-structured and validated questionnaire and in-depth interview.

The Questionnaire

The questionnaire that was used for this study is self-developed, structured and validated questionnaire. It was based on a 5-point likert rating scale labeled as Strongly Agree (SA) rated 5; Agree (A) rated 4; Undecided (U) rated 3; Disagree (D) rated 2 and Strongly Disagree rated 1. The questionnaire was divided into five (5) sections namely demographic characteristics of respondents, knowledge of ICT deployment and use in sports, management practices, attitude scale and ICT deployment and use.

The Demographic Characteristics

This section draws information on the demographic characteristics of respondents such as gender, age, educational attainment, religion, type of sports management personnel, etc. Their measurement seems different because they are captured at different levels. For example, while the gender is to be captured at two levels: either male or female, educational attainment can be captured at five levels which include no education, primary education, tertiary education, professional education and informal education. This would also be different from religions of respondents which would be at three levels viz-a-viz Christianity, Muslim, and the traditional religion; among others. These factors are known as expo-factors because they are not manipulated, as the status of the respondents places them at the category they belonged to.

Knowledge of ICT Deployment and Use in Sport

Knowledge for ICT deployment and use in sports by respondents was captured in different likert rating and format. The section consist of fifteen (15) items and is further divided into three (3) sub sections namely: been informed about how ICT can be

used for sports management activities, been aware of the various ICT that can be deployed and used for sports management activities and possessing the necessary skills that would be needed by sports managers to operate ICT for various sports management activities and sports activities in Nigeria. The items for the awareness of ICT for sports management activities were eighteen (18) and were captured at two levels: aware and not aware. Also, to capture the sports' managers being informed about the various ICT use in sport management activities, items provided for this section were eighteen (18). A five-point likert scale was deployed to include sports managers to strongly agree, agree, undecided, disagree and strongly disagree about the deployment and use of the various ICTs tools for sports management. Also, another important variable captured in this section that was used to measure knowledge of ICT in sports management is the ICT skills. It consists of eighteen (18) items and it was captured in a three likert scale of high, average and low ICT skills.

Attitude scale

The attitudinal scale was captured in a four-point modified likert scale pattern which includes Strongly Agree (SA) rated 4; Agree (A) rated 3; Disagree (D) rated 2 and Strongly Disagree rated 1. The section consists of different sub sections which include the attitude, perception, behavioural belief and the subjective norms of the sports council in the use of ICT. These four (4) sub sections were used to capture the attitudinal section of the sports managers towards the deployment and use of ICT for sports management activities in Nigeria. With regards to the attitude section, nine (9) items were used to measure the attitude of respondents which follows the four-point modified likert scale response. In the perception section, eighteen (18) items were used to capture perception of ICT use for sports management activities among sports managers in Nigeria. Also, with regards to the behavioural sub section, ten (10) items were deployed and used to capture the perception of sports managers to the use of ICT in sports management activities.

Level of ICT deployment and use

The level of ICT deployment and use scale was sub divided into two (2) major sub groups: level of availability of ICT and level of use of ICT for sport management activities. The sections were captured in different likert scale patterns. For example, the sub section of level of availability of ICT has a four-point modified likert scale which include "Strongly Agree", "Agree", "Disagree" and "Strongly Disagree". Also, the level of use section is captured in a four-point modified likert scale which includes respondents "using it regularly", "once in a while", "rarely", and "when need arises". Also, of importance is that these two sub sections would consist of two different sub sections which include "the use of hardware" by sports managers and staff of states sports councils in the three selected states as one section and "the use of software" as another section.

Management Practices

The management practices section has Ten (10) items, which is in four-point modified likert scale pattern which includes Strongly Agree (SA) rated 4; Agree (A) rated 3; Disagree (D) rated 2 and Strongly Disagree rated. In this section respondents were asked to pick any of the scales. It was assumed that when a respondent ticked any of the sports management activities against any ICT, such respondent deploys such ICT in the selected management activities ticked. This is synonymous to the "yes" or "no" response from the respondent.

The In-Depth Interview (IDI)

The second research instrument for the study was interview based on a self-developed and structured In-Depth Interview guide on ICT usage in sports management. This is a qualitative instrument and it consists of nine (9) structured questions. Five (5) selected managers were interviewed with respect to these questions.

3.5 Validity of the Instrument

Validity is one of the most important characteristics of a good measuring instrument. KitZinger (2002) asserted that validity refers to the appropriateness, meaningfulness and usefulness of the instrument in measuring what it is designed to measure. To ensure the validity of the instrument, the draft copy of the questionnaire was subjected to content and construct validity in order to enhance clarity through the help of the researcher's supervisor and other lecturers in the Department of Human Kinetics and Health Education, University of Ibadan, Ibadan. Their suggestions and modifications were effected and used to enhance the quality of the instrument. The content validity involved a thorough scrutiny of the contents of the research instrument to make sure that they address the research objectives, questions and hypotheses of the study. On the other hand, the construct validity of the instrument ensured that major constructs of the study were in the research instrument where necessary and applicable. In this study, the major constructs are knowledge, management practices, attitude and level of ICT use. To this end, the four (4) major constructs were represented in each section in the research instrument.

In developing the items of the questionnaire seventy five (75) items were generated based on exploratory survey discussion with some sports managers after which the questionnaire was presented to two professional sports administrators and an expert in psychometrics. This led to subtraction, addition and modification of the items of the questionnaire, leaving the questionnaire with sixty-six (66) items. This was then subjected to exploratory factor analysis. A Kaiser-Meyer-Olkin (KMO) of 0.72 was obtained which is above the benchmark of 0.60. This indicates that the sample size is adequate for the conduct of factor analysis. In the final stage, only fifty-nine (59) of the items were able to meet up with the retention criterion of 0.6. All other items that did not meet the retention criterion were extracted. The test of sphericity was statistically significant which support the factorability of the correlation matrix as the p-value stands at 0.000. Also the inspection of the correlation matrix revealed that all the coefficient of the retained items were 0.6 and above which is above the Nullaly criterion for item retention.

3.6 Reliability of the Instrument

To ensure the reliability of the research instrument, especially the questionnaire, it was subjected to reliability test. This helped to ascertain the level of psychometric property and whether it conforms to overall consistency. The research instrument was administered on twenty (20) respondents from Ekiti State that is not selected to be part of the actual study. This was subjected to Cronbach Alpha reliability, to test the internal consistency of the items which are in sections B, C and D. The section B, Knowledge of ICT Usage in Sports Questionnaire (KICTUSQ) with reliability coefficient of 0.85. Section C, Attitude towards ICT Usage in Sports Questionnaire (ATICTUSQ) had reliability coefficient of 0.82. Section D, Management Practices in Sports Questionnaire (MPSQ) with reliability coefficient of 0.88 respectively.

3.7 Ethical Consideration

Ethical approval for the study was obtained from the University of Ibadan Ethical Review Boards. The participants were informed about the purpose of the study, while informed consent forms were given to them to fill before the administration of the questionnaire. Confidentiality of their responses to questionnaire items was assured. The researcher agreed with the terms and conditions by the directors, managers and head of all units, that all the respondents must be fed after the data collection, because majority of them have not collected salaries for months. The researcher acted accordingly and all the respondents were happy that the terms and conditions were met.

3.8 Procedure for Data Collection

The researcher collected letter of introduction from the Head, Department of Human Kinetics and Health Education, University of Ibadan, Ibadan for identification purposes. The letters were presented to the head of each states sports council in the six sport zones in Nigeria. Data for this study was collected primarily by the researcher with the help of ten (10) trained research assistants. The research assistants helped to speed up the work because of time constraint and because of the cumbersomeness of the work, the wide range of respondents and data that was collected within a short period of time. Data collection process covered an estimated period of (3) three months. During this process, there were training sessions for the research assistants, where they were

taught the necessary steps and important information that would be needed for the study.

The process of data collection involved the researcher moving around to the various states sports councils and zonal offices of national sport commissions in the six sports-zones in Nigeria together with the research assistants. This was done to ensure the collection of accurate data and information which would be dependable. However, only the researcher conducted the in-depth interview with the key personnel and information obtained from respondents were recorded and analysed.

In-depth Interview Time-Table

S/N	STATE	TIME	DATE	STATUS
1	ABUJA	15-25 Minutes	11th Dec, 2017	Ass Director (Tech)/ Stadium Manager
	KADUNA	15-25 Minutes	18th Dec, 2017	Director/ Stadium Manager
3	ENUGU	15-25 Minutes	10thJan,2018	Director/ Stadium Manager
4	EDO	15-25 Minutes	15thJan, 2018	Ass Director Technical
5	OYO	15-25 Minutes	30thJan,2018	Director/ Stadium Manager

3.9 Procedure for Data Analysis

The data collected were analysed using both descriptive and inferential statistics. Descriptive statistics of frequency count and percentages and pie chat were used to analyse the demographic variables and provide answers to the research questions while inferential statistics of regression was used to test hypotheses 1 – 4 and t-test for hypotheses 5 – 10. All hypotheses were tested at 0.05 Alpha level. Thematic content analysis was used for the quantitative data generated from the in-depth interview.

CHAPTER FOUR

4.0 DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

This chapter focused on the analysis of data with respect to research questions and hypotheses earlier stated. The chapter was divided into three (3) sections. Section A presented the demographic information of the respondents; section B provided answers to the research questions while section C provided the result of the tested hypotheses. Though the study respondents were supposed to be 1,350, but only 1,297 questionnaire forms were properly filled, hence, the study made use of the 1,297 questionnaire forms that were properly filled.

Section A: Demographic Information of the participants

TABLE 4.1: Distribution of Participants According to Selected Demographic Characteristics

Level	Frequency	Percentage (%)
Gender		
Male	849	65.5
Female	448	34.5
Total	**1297**	**100.0**
Age		
31-40years	457	35.2
41-50years	455	035.1
51-60years	294	22.7
61years and above	91	7.0
Total	**1297**	**100.0**
Educational level		
NCE/OND	355	27.4
HND/BSc	385	29.7
MSc	188	14.5
Ph.D	208	16.0
Others	161	12.4
Total	**1297**	**100.0**
Years of working experience		
1-10years	766	59.1
11years and above	531	40.9
Total	**1297**	**100.0**
Religion		
Christianity	764	58.9
Islam	482	37.2
Traditional	51	3.9
Total	**1297**	**100.0**

Designation		
Director/Assistant Director	194	15.0
Chairman	222	17.1
Secretary	294	22.7
Coach	587	45.2
Total	**1297**	**100.0**

Table 4.1 above showed that 849 (65.5%) were males while 448 (34.5%) were females showing that majority of the respondents are males. Out of the 1297 respondents 457 (35.2%) were between the ages of 31 and 40years, 455 (35.1%) were between the ages of 41 and 50years, 294 (22.7%) were between the ages of 51 and 60years while 91 (7.0%) were 61years and above showing that majority of the respondents were between the ages of 31 and 40years. Concerning educational level, 355 (27.4%) had NCE/OND, 385 (29.7%) had HND/BSc, 188 (14.5%) had MSc, 208 (16.0%) had Ph.D while 161 (12.4%) had other educational qualifications apart from the ones mentioned above. This shows that majority of the respondents had HND/BSc. 766 (59.1%) had between 1 and 10years of working experience while 531 (40.9%) had 11years and above years of working experience, showing that majority of the respondents had between 1 and 10years of working experience. Concerning religion, 764 (58.9%) were Christians, 482 (37.2%) were Muslims while 51 (3.9%) were traditional worshippers, showing that majority of the respondents were Christians. 194 (15.0%) were director/assistant director, 222 (17.1%) were chairmen, 294 (22.7%) were secretary while 587 (45.3%) were coaches. This shows that majority of the respondents were coaches.

Section B

This section provided answers to the research questions.

Research question 1: Do sports managers in sport zones in Nigeria have knowledge of ICT for sports use?

Table 4.2a: Frequency Count and Percentages on Knowledge of ICT for Sports Use

s/n	Items	SA	A	D	SD
	I know ICT can be used in sports	726 56.1%	477 36.8%	43 3.3%	49 3.8%
	I know that MIS is a useful tool in sports	533 41.1%	552 42.6%	124 9.6%	88 6.85
	Body byte software has importance in sports	440 33.9%	611 47.1%	195 15.05	51 3.9%
	Use of visual analysis software is relevant in sports	490	578	141	88

		37.8%	44.6%	10.9%	6.8%
	I know that simulation can be used in sports	436 33.6%	580 44.7%	202 15.6%	79 6.1%
	I am aware of the importance of game software in sports	475 36.6%	570 43.9%	166 12.8%	86 6.6%
	I have a good knowledge of decision support system in sports	430 33.2%	548 42.3%	234 18.0%	85 6.6%
	Team beep test software is a useful tool in sports	398 30.7%	575 44.3%	191 14.7%	133 10.3%
	Criterion mean= 2.5 **Grand mean= 2.7**				

Table 4.2b: Frequency Count and Percentages on Knowledge of Specific ICT Tools for Sport Use

S/N	ICTs	1	2	3	4
i.	Internet	171 13.2%	244 18.8%	423 32.6%	459 35.4%
iii.	Flash Drive	124 9.6%	328% 25.3%	421 32.5%	424 32.7%
iv.	VCD/DVD,	120 9.3%	249 19.2%	480 37.0%	448 34.5%
v.	Use of email	563 43.4%	371 28.6%	241 18.6%	122 9.4%
vi.	Use of You tube	474 36.5%	401 30.9%	268 20.7%	154 11.9%
vii.	Use of digital cameras/videos	480 37.0%	413 31.8%	265 20.4%	139 10.7%
viii.	Video editing	142 11.0%	280 21.6%	422 32.5%	452 34.8%
ix.	Mobile phones	123 9.5%	241 18.6%	487 37.5%	446 34.4%
x.	Social networking sites	480 37.0%	433 33.4%	260 20.0%	124 9.6%
xi.	Personal computers/laptops	467 36.0%	436 33.6%	282 21.7%	112 8.6%
xii.	Pedometers	401 30.9%	414 31.9%	315 24.3%	167 12.9%
xiii.	Heart rate monitors	425 32.8%	399 30.8%	308 23.7%	165 12.7%
xiv.	Visual analysis softwares	383 29.5%	428 33.0%	291 22.4%	195 15.0%
xv.	Simulation and games softwares	267 20.6%	339 26.1%	393 30.3%	298 23.0%
xvi.	E-Readers	304 23.4%	423 32.6%	367 28.3%	203 15.7%
xvii.	Database softwares	304 23.4%	461 35.5%	336 25.9%	196 15.1%
xviii.	Word-processing softwares	204 15.7%	333 25.7%	451 34.8%	309 23.8%
xix.	Desktop publishing softwares	447 34.5%	401 30.9%	273 21.0%	176 13.6%
xx.	Presentation softwares	440 33.9%	367 28.3%	255 19.7%	235 18.1%
xxi.	Spreadsheet softwares	490 37.8%	336 25.9%	251 19.4%	220 17.0%
xxii.	Team beep test softwares	447 34.5%	387 29.8%	247 19.0%	216 16.7%

xxiii.	Body byte softwares	458 35.3%	352 27.1%	284 21.9%	203 15.7%
xxiv.	Management Information Systems	462 35.6%	333 25.7%	298 23.0%	204 15.7%
xv.	Administrative support systems	474 36.5%	368 28.4%	290 22.4%	165 12.7%
xvi.	Decision Support Systems	490 37.6%	356 27.4%	269 20.7%	182 14.0%
xvii.	Web pages	501 38.6%	359 27.7%	266 20.5%	171 13.2%
.	**Criterion mean= 2.5** **Grand mean= 1.9**				

Table 4.2a above shows that sport managers in sports zones in Nigeria have adequate knowledge of ICT usage in sports. The grand mean of 2.7 which is higher than the criterion mean of 2.5 further revealed that sports managers have adequate knowledge of ICT but going by the result in table 4.2b, it can be concluded that sports manages had poor knowledge of specific ICT tools and their usage in sports. The grand mean of 1.9 is less than the criterion mean of 2.5. The result shows that majority of sports managers had knowledge of flash 424 (32.7%), mobile phone 446 (34.4% and internet 459 (35.4%).

Research question 2: What is the attitude of sports managers in sport zones in Nigeria towards the use of ICT for sports?

Table 4.3a: Frequency Count and Percentages on Attitude Towards ICT Usage in Sports

S/N	Items	**SA**	**A**	**D**	**SD**
1	ICT cannot be use effectively in sports	360 27.8	332 25.6	287 22.1	318 24.5
2	Using ICT in sports is a waste of time	293 22.6	299 23.1	361 27.8	344 26.5
3	Using ICT in sports is a waste of money	333 25.7	379 29.2	310 23.9	275 21.2
4	ICT waste a lot of time when using it in sports	378 29.1	360 27.8	276 21.3	283 21.8
5	There is no privacy when you use ICT in sports	306 23.6	373 28.8	328 25.3	290 22.4
6	ICT usage in sports does not give accurate result	234 18.0	313 24.1	461 35.5	289 22.3
7	It is not possible to use ICT in sports	250 19.3	337 26.0	400 30.8	310 23.9
8	I can never accept the use of ICT in sports	269 20.7	328 25.3	396 30.5	304 23.4
9	Using computer in sports is for the advanced nations	260	370	388	279

		20.0	28.5	29.9	21.5
10	Nigeria is not developed enough to use ICT in sports	244 18.8	378 29.1	393 30.3	282 21.7
11	Better area of Nigeria economy are yet to be using ICT not to talk of sports	266 20.5	392 30.2	415 32.0	224 17.3
12	Sports is the least area that will use ICT	212 16.3	377 29.1	453 34.9	255 19.7
13	I detest using heart rate monitor	252 19.4	295 22.7	486 37.5	264 20.4
	Criterion mean= 2.5 **Grand mean= 2.6**				

Table 4.3b: Frequency Count and Percentages on Attitude Towards Specific ICT Usage in Sports

S/N	ICTs	1	2	3
i.	Using the internet	834 64.3%	276 21.3%	187 14.4%
ii.	Using the Intranet	792 61.0%	365 28.1%	140 10.8%
iii.	Using the Flash Drive	798 61.5%	329 25.4%	170 13.1%
iv.	Using the VCD/DVD,	796 61.3%	331 25.5%	170 13.1%
v.	Use of email	181 14.0%	761 58.6%	355 27.4%
vi.	Use of You tube	777 59.9%	349 26.9%	171 13.2%
vii.	Use of digital cameras/videos	194 15.0%	290 22.4%	813 62.7%
viii.	Using Video editing	781 60.2%	351 27.1%	165 12.7%
ix.	Using Mobile phones	150 11.6%	326 25.1%	821 63.3%
x.	Using the Social networking sites	305 23.5%	174 13.4%	818 63.0%
xi.	Using the Personal computers/laptops	165 12.7%	408 31.5%	724 55.7%
xii.	Using the Pedometers	740 57.0%	395 30.5%	162 12.5%
xiii.	Using the Heart rate monitors	655 50.5%	450 34.7%	192 14.8%
xiv.	Using the Visual analysis softwares	709 54.6%	452 34.8%	136 10.5%
xv.	Using the Simulation and games softwares	644 49.7%	463 35.7%	190 14.6%
xvi.	Using the E-Readers	615 47.5%	494 38.1%	188 14.5%
xvii.	Using the Database softwares	639 49.3%	480 37.0%	178 13.7%
xviii.	Using the Word-processing softwares	631 48.7%	498 38.4%	168 13.0%
xix.	Using the Desktop publishing softwares	624 48.1%	500 38.6%	173 13.3%
xx.	Using the Presentation softwares	671 52.5%	448 34.5%	168 13.0%
xxi.	Using the spreadsheet softwares	646 49.8%	462 35.6%	189 14.6%
xxii.	Using the Team beep test softwares	653 50.3%	505 38.9%	139 10.7%
xxiii.	Using the Body byte software	655 50.5%	457 35.2%	185 14.3%

xxiv.	Using the Management Information Systems	703 54.2%	441 34.0%	153 11.8%
xv.	Using the Administrative support systems	708 54.6%	439 33.8%	150 11.6%
xvi.	Using the Decision Support Systems	666 51.4%	472 36.4%	159 12.3%
xvii.	Using the Web pages	654 50.4%	508 39.2%	135 10.4%
	Criterion mean= 2.0 **Grand mean= 1.8**			

Table 4.3a above shows that sports managers in sports zones in Nigeria have positive attitude towards ICT usage in sports. The grand mean of 2.6 which is higher than the criterion mean of 2.5 further revealed that sports managers had positive attitude towards ICT use in sports but going by the result in table 4.3b, it can be concluded that sports manages had poor attitude towards specific ICT tools and their usage in sports. The grand mean of 1.8 is less than the criterion mean 2.0.

Research question 3: Do sport managers in Nigeria use ICT for sports?

Table 4.4: Frequency Count and Percentages on Use of ICT for Management Practices in Sports

s/n	**Items**	**SA**	**A**	**D**	**SD**
1	There is a policy on ICT usage in sports	90 6.9%	148 11.4%	577 44.5%	482 37.2%
2	There is no support for ICT in sports from the managers of sports	305 23.5%	501 38.6%	130 10.0%	361 27.8%
3	There is no favourable environment for the use of ICT in sports	296 22.8%	476 36.7%	362 27.9%	163 12.6%
4	There is no provision of computers in my office	294 22.7%	467 35.9%	326 25.1%	212 16.3%
5	There is no provision of internet facilities by the management	276 21.3%	564 43.5%	285 22.0%	172 13.3%
6	There is no favourable management decision on the use of ICT	299 23.1%	487 37.5%	353 27.2%	158 12.2%
7	There is no provision for training on ICT us, in sports	298 23.0%	529 40.8%	318 24.5%	152 11.7%
8	No provision of fund by the management for the use of ICT in sports	314 24.2%	547 42.2%	289 22.3%	147 11.3%
9	Management pattern in sport does not give room for the use of ICT	281 21.7%	527 40.6%	340 26.2%	149 11.5%
10	Most of the conditions needed for the use of ICT in sports are not in place in the sports ministries	348 26.8%	482 37.2%	336 25.9%	131 10.1%
	Criterion mean= 2.5 **Grand mean= 2.3**				

Table 4.4a above shows that sports managers in sports zones in Nigeria do not make use of ICT for management practices in sports. The grand mean of 2.3 is less than the criterion mean of 2.5 which revealed that the use of ICT for management practice is below what they should be using it for.

Research question 4: Do sport managers in Nigeria go for periodic training on ICT use?

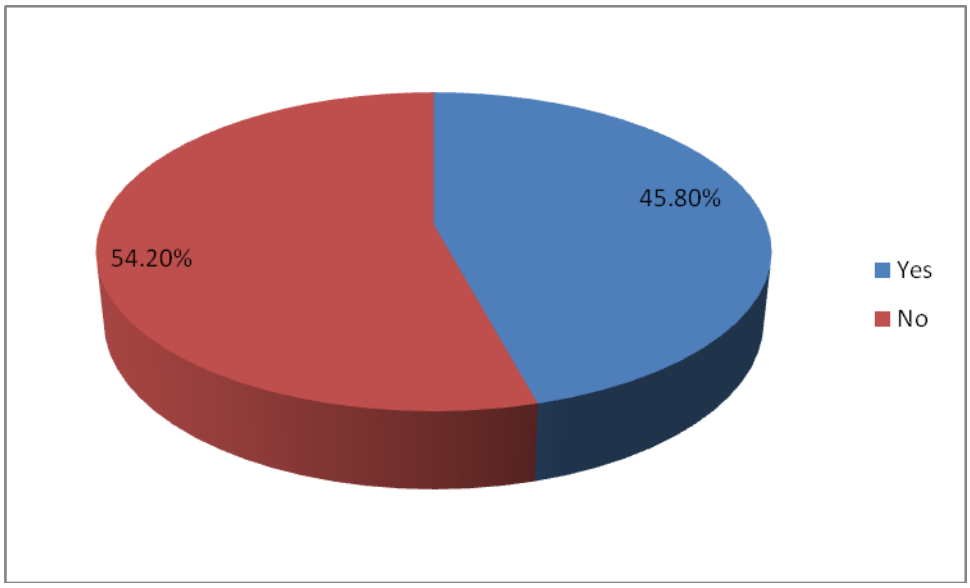

Fig.4.1: Pie-chat showing if sport managers in Nigeria go for periodic training on ICT use

The chat shows that 703(54.20%) of the respondents agreed that sports managers do not go for period training on ICT usage while 594 (45.80%) were of the view that sports managers do go for periodic training on ICT use. This shows that majority of the respondents were of the view that sports managers do not go for periodic training on ICT use.

Research question 5: Will there be relationship between the independent variables (knowledge, attitude and management practice) on the dependent variable (use of ICT)

Table 4.5: Pearson Product Moment Correlation Matrix Between the Dependent Variable and the Independent Variables.

Variables	Use of ICT	Knowledge	Attitude	Management practice
Use of ICT	1.			
Knowledge	0.374**	1.		
Attitude	0.365**	0.561**	1.	
Management practice	0.311**	0.374**	0.387**	1.

**. Correlation is significant at the 0.01 level (2-tailed).

The table above shows that the dependent variable (ICT usage) has positive relationship with the independent variables (knowledge, attitude and management practices). The magnitude of the relationship indicated moderate to slightly high relationship. A moderation relationship was found between ICT usage and knowledge (r=.374), attitude (r=.365) and management practice (r=.311), a slightly high relationship was found between knowledge and attitude towards ICT usage (r=.561).

4.1 Hypotheses Testing:

The following hypotheses were tested in the study:

Hypothesis 1: Knowledge will not be a significant correlate of ICT usage among sport managers in Nigeria.

Table 4.6: Regression Table Showing the Relative Contribution of Knowledge to ICT Usage

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	42.538	11.884		6.579	0.000
Knowledge	0.193	0.118	0.551	5.634	0.000

Table 4.6 revealed that knowledge of ICT significantly correlate ICT usage among sports managers in Nigeria contributing about 56% (ß=.551, t=5.634, p<0.05).

Hypothesis 2: Attitude will not be a significant correlate of ICT among sport managers in Nigeria.

Table 4.7: Regression Table Showing the Relative Contribution of Attitude Towards ICT Usage

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	42.538	11.884		6.579	0.000
Attitude	0.171	0.169	0.338	4.015	0.012

Table 4.7 revealed that attitude significantly correlate ICT usage among sports manages in Nigeria contributing about 34% (ß=.338, t=4.015, p<0.05).

Hypothesis 3: Management practices will not be a significant correlate of ICT among sport managers in Nigeria.

Table 4.8: The Relative Contribution of Management Practice Towards ICT Usage

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	42.538	11.884		6.579	0.000
Management practice	0.170	0.165	0.320	4.005	0.020

Table 4.8 revealed that management practices significantly correlate ICT usage among sports manages in Nigeria contributing 32% (ß=.320, t=4.005, p<0.05).

Hypothesis 4: There will be no significant joint contribution of knowledge, attitude and management practice on ICT usage among sport managers in Nigeria.

Table 4.9: Regression Table Showing the Composite Contribution of Knowledge, Attitude and Management Practice to ICT Usage

R = 0.792					
R^2 = 0.627					
Multiple R^2 adjustment = 0.621					
Analysis of Variance					
Model	Sum of square	df	Mean square	F	P
Regression	33468.967	3	11156.322	27.183	0.000
Residual	530263.434	1292	410.421		
Total	563732.443	1295			

Table 9.0 revealed that there was a significant joint contribution of knowledge, attitude and management practice to ICT usage among sports managers in Nigeria ($F_{(3,1295)=27.183}$. The independent variable also yielded a coefficient of multiple regression (R^2) of 0.627 indicating that about 63% of the variation is accounted for by the independent variables.

Hypothesis 5: There will be no significant gender difference in knowledge of ICT use for sport among sport managers in Nigeria.

Table 4.10: Gender Difference in Knowledge of ICT Use for Sports Among Sport Managers

	Sex	N	Mean	Mean difference	t	df	P
Knowledge of ICT	Male	849	76.4205	4.712	4.443	1295	0.001
	Female	448	71.7085				

Table 4.10 showed that there was significant gender difference in knowledge of ICT usage in sports. The table revealed that males had a greater mean of 76.4205 while females had a mean of 71.7085, indicating a mean difference of 4.712. This meant that males had better knowledge of ICT usage in sports than females among the respondents.

Hypothesis 6: There will be no significant gender difference in attitude towards the use of ICT among sport managers in Nigeria.

Table 4.11: Gender Difference in Attitude Towards ICT Use for Sports Among Sport Managers

	Sex	N	Mean	Mean difference	T	df	P
Attitude towards ICT	Male	849	69.9647	5.3122	7.294	1295	0.002
	Female	448	64.6525				

Table 4.11 showed that there was significant gender difference in attitude towards ICT usage in sports. The table revealed that males had a greater mean of 69.9647 than females with a mean of 64.6525, indicating a mean difference of 5.3122. This meant that males had better attitude towards ICT usage in sports than females among the respondents.

Hypothesis 7: There will be no significant gender difference in use of ICT for sports among sport managers in Nigeria.

Table 4.12: Gender Difference in Attitude Towards ICT Use for Sports Among Sport Managers

	Sex	N	Mean	Mean difference	T	df	P
Use of ICT	Male	849	70.6690	5.8241	7.550	1295	0.002
	Female	448	64.8449				

The table 4.12 showed that there was significant gender difference in use of ICT usage in sports. The table revealed that males had a greater mean of 70.6690 than females with a mean of 64.8449, indicating a mean difference of 5.8241. This meant that males had better use of ICT in sports than females among the respondents.

Hypothesis 8: There will be no significant difference in knowledge of ICT for sports among sports managers in Nigeria based on years of experience

Table 4.13: Difference in Knowledge of ICT Use for Sports Among Sport Managers Based on Years of Experience

	Years of working experience	N	Mean	Mean difference	t	Df	P
Knowledge of ICT	Short (1-10years)	766	75.7098	1.6929	3.632	1295	0.003
	Long (11years and above)	531	74.0169				

The table 4.13 showed that there was significant difference in knowledge of ICT usage in sports among sports manages based on years of working experience. The table revealed that respondents with short years of working experience had a greater mean of 75.7098 while those with long years of working experience had a mean of 74.0169, indicating a mean difference of 1.6929. This meant that respondents with short years of working experience had better knowledge of ICT usage in sports than those with long years of working experience.

Hypothesis 9: There will be no significant difference in attitude towards the use of ICT for sport among sport managers in Nigeria based on years of working experience

Table 4.14: Difference in Knowledge of ICT Use for Sports Among Sport Managers Based on Years of Working Experience

	Years of working experience	N	Mean	Mean difference	T	Df	P
Attitude towards ICT	Short (1-10years)	766	69.3597	1.6929	5.119	1295	0.000
	Long (11years and above)	531	66.7100				

The table 4.14 showed that there was significant difference in attitude towards ICT usage in sports among sports manages based on years of working experience. The table revealed that respondents with short years of working experience had a greater mean of 69.3597 while those with long years of working experience had a mean of 66.7100, indicating a mean difference of 5.119. This meant that respondents with short years of working experience had better attitude towards ICT usage in sports than those with long years of working experience.

Hypothesis 10: There will be no significant difference in use of ICT for sports among sport managers in Nigeria based on years of working experience.

Table 4.15: Difference in Knowledge of ICT Use for Sports Among Sport Managers Based on Years of Working Experience

	Years of working experience	N	Mean	Mean difference	T	df	P
ICT usage	Short (1-10years)	766	70.1262	2.4222	3.024	1295	0.003
	Long (11years and above)	531	67.7040				

Table 4.15 showed that there was significant difference in ICT usage in sports among sports manages based on years of working experience. The table revealed that respondents with short years of working experience had a greater mean of 70.1262 while those with long years of working experience had a mean of 67.7040, indicating a mean difference of 2.4222. This meant that respondents with short years of working experience had better ICT usage in sports than those with long years of working experience.

4.2 QUALITATIVE DATA ANALYSIS

QUALITATIVE PRESENTATIONS OF THEMATIC CONTENT ANALYSIS OF THE IN-DEPTH INTERVIEWS CONDUCTED ON KNOWLEDGE IN, ATTITUDE TO AND MANAGEMENT PRACTICES OF ICT AS CORRELATES OF INFORMATION AND COMMUNICATION TECHNOLOGY USAGE AMONG SPORTS MANAGERS IN NIGERIA

Time: 15 – 25 Minutes

The interview segment had interviewees from the 6 Geopolitical Zones in Nigeria, namely, South-South, South-East, South-West, North Central, North-West and North-East respectively and one State was selected from each Geopolitical Zone in Nigeria. The interviewees were ranked as Directors and Assistant Directors. These managers asserted that the non-availability of ICT tools in their various organisations have handicapped the performances of their organisations and that, there is so much inconsistencies in ICT tool operations. They further stressed the need for the availability of this tools to further strengthen and enhance the performances of their immediate organisations and that of their athletes in preparation for competitions both locally and internationally.

Question1

Have you heard about ICT usage in sports before?

All the respondents interviewed said they have heard and are aware of ICT usage in sports. One of the respondents said, "There is no professional sport without ICT usage again, it's now a major aspect that contribute mostly to sports performance and development". One of the respondents said "Computer is the same thing with ICT, I know how to use computer"

This implied that majority that claimed they have knowledge of ICT only think that once they know how to use computer, that is only ICT tool and they don't know about other tools like, pedometer, video editing software, body byte system, decision support system, database management systems etc.

Question 2

Do you believe that ICT can be used for sporting activities?

All the respondents responded that they believed that ICT can be used for sporting activities especially in the aspect of match analysis, athlete training and development, organisation and administration of sporting activities. The majority of the respondents said they have been using ICT tools especially computers and phones to do their work. This notion is supported by Qualifications and curriculum Development Agency (2010), knowledge in the use of ICT in sports cuts across being aware of various ICTs and their usage, such as its use in research, use of the Internet and DVD, use of word-processing/desktop

publishing/presentation/spreadsheet software; communicate and exchange information such as email and web-based methods; use of digital cameras/video and video editing; and upload files such as web-based mediums, presentations, applications, among others.

Question 3

Do you have the knowledge of ICT usage before and what are the activities relating to sport that you can use ICT for?

From the responses, it was obvious that respondents have the knowledge of ICT usage in sport but the required facilities are not available, that is, no high graded facilities like computer system, playback video, internet facilities in their offices, etc. However, few have access to the global information with the use of their mobile phones.

On the activities relating to sport that ICT could be used for, majority of the respondent believe that ICT could be used for training, match analysis, record management, budgeting. Some said that, without some ICT tools in training and development of athletes, the chance of winning will be very low and that for optimum performance to be achieved, those at the hem of affairs should as a matter of urgent importance, provisions should be made in order to meet with our counterparts in the diaspora. This was corroborated by other sport managers interviewed in the different zones.

Question 4

When last do you employ the use of ICT in this organisation and what was it used for?

Majority of the respondents expressed their feelings on the usage of ICT in their organisations that there is inadequate use of ICT tools. Most of the respondents make use of their mobile phones for recording, surfing the net and emails, while few have access to computer system, play back videos, accessing website for new trends in sports.

One of the respondents said "I have not be able to use computer for a very long time because there is no computer in my office and the only one they have in the whole sports council have been faulty for more than six months and there is no available fund to repair and procure new ones. And that when there is a need to type anything, they have to go to business centers to do it". Anmol (2014) outlined other specific areas where ICTs can be deployed and used in sports. He states that ICTs can be deployed and used in management, which involves everything from discipline to class organisation and time management. He also maintains that it can be used in acquiring feedback such as video, personal computer, heart rate monitor, among others. It can also be deployed and used to provide remedy for existing problems such as heart rate monitor, educational software, among others. Also, it can be deployed and used for evaluation which includes the usage of videos, digital camcorders to analyze students or athletes in action. In addition, it can be used for professional development which includes life-long learning/ continuing education, sharing experiences, etc among athletes. Also, of

importance to sports is the use of ICT for public relations such as communication via internet with the outside world.

Question 5

How often do you go for training on ICT use in sport?

Few of the respondents have never for once attended training on ICT. Majority of the respondents during the interview said "ICT training that relate to sports management have not been conducted at all in their sport organisations and this has been affecting them as managers and their athletes' performance and development over the years and it has been a challenge for their various sport organisations"

Training is the systematic development of the attitude and skill behavior pattern required by an individual in order to perform adequately a given task. It is also the systematic modification of behavior through learning which occurs as a result of education instruction development and planned experiences. (Adegoke, 2008). A major problem faced by most organisations including the sports firms in Nigeria is the role of training as it affects the employees' productivity, and this can be traced down to lack of necessary skills and knowledge on the part of the employees and the inability of the management to fully appreciate the role of training its effectiveness in enhancing the employees' productivity. According to Adegoke (2008), few of the organisation's executives in Nigeria assume that improving the skills and knowledge of employees aid in improving effectiveness and productivity at the work place, but a reasonable percentage of the executives do not see the need for thorough training, hence

training is given less attention and eventually lead to insufficient training of employees in organization.

Question 6

What are the advantages of using ICT for sporting activities?

ICT usage in sporting activities are very crucial; all the respondents believed and agreed that ICT in sporting activities is very useful for:

- *Record management*
- *Retrieval and circulation of information*
- *Match analysis*
- *Training and educating of athletes*
- *Performance analysis*
- *Enhancement of sport productivity*
- *Budgeting*
- *Getting latest information on new trends in sports globally*

ICT is regarded as an engine for growth and tool for empowerment, with profound implications for change in economic and social development which cuts across sports (Davis, 2003). Its essential requirement for survival and progress in the 21st century made Davis (2003) to suggest that it should be exploited by developing countries such as Nigeria to participate meaningfully in the global digital-enabled economy. In particular ICT advancement enables Nigeria to drive inclusive national development and growth by tapping into the benefits derivable from the exploitation and

deployment of ICTs (Edinyang et al., 2015). Globally, there is an increasing pressure in the use Information and Communication Technology (ICT) and every nation and their different sectors are deeming it fit to inculcate and deploy ICT to enhance their performance (Omwenga, 2007). Ajiferuke and Olatokun (2009) state that, few countries like China, USA, U.K., India, and Brazil are successfully taking advantage of the opportunities Information Communication Technologies offer and have made significant improvements in their economic achievements including sports. In addition, many more developing countries, including Nigeria, are beginning to derive some of the potential benefits that ICT provides for development. It is also stated that, Nigeria, like most developing countries, is an "information-poor" country where the deployment and application of ICTs is still in its infancy (Ajiferuke & Olatokun, 2009). Onasanya, Shehu, Oduwaiye and Shehu (2010) and Twinomujuni (2011) affirmed that, in practice, the use of ICT is relatively low and it is focused on a narrow range of applications, with word processing being the predominantly used especially in developing countries such as Nigeria.

The most important piece of equipment that lies at the heart of the whole sports managers is the computer. The computer and the software that it runs is an essential element in the new societal paradigm and it is a key to success for the modern sports manager. It

is the piece of equipment that allows the sports administrator to maximize the return on scarce resources whether this is people, facilities and equipment or finances. In turn, it is also perhaps the single most important tool to the sports administrator to extend the reach of sport and recreational programming to as many potential participants as possible (Rosandich, 2012).

From the foregoing the value of using ICT tools can be readily seen for the organization of a competition. These tools are even more important for the day-to-day operation of the sport organization as can be seen by the kinds of sport program information that can be contained within these databases:

First an athlete specific information such as team rosters that include biographic information including name, sex, age, contact information and even clothing sizes for team uniforms. The same database may also contain details on medical conditions, performance history, or other participation characteristics of the athletes (Rosandich, 2012).

Another common use is the development of rosters of program support personnel such as officials, timekeepers, drivers, or medical staff. Aside from details such as their addresses, a database of this type might also contain information about availability and reliability. Money is always an issue for today's sport management professional. Databases are particularly

useful for tracking donors or potential donors whether and they contribute money or in-kind services. In addition to the expected biographic information will be other keys to successful fund raising such as the source of their motivation or affiliation and the frequency with which they give.

Databases are also essential for other types of administrative information. Examples include accounting and business records, employee files, equipment inventories or facility maintenance records. The organizational marketing information system (MIS) is also typically a database program in which is tracked information such as season ticket sales, gate receipts or merchandising sales. To be effective, databases can and should be regularly updated to record changes. Bear in mind that the passage of time presents a more comprehensive picture of most activities and the ability to record change and make sense of it is essential for long term survival. Further, there is nothing so constant as change, particularly in sports organizations, and a well thought out and maintained database is a great way to develop and maintain an "institutional memory"; a record of those changes and the impact they have had on the organization (Rosandich, 2012).

Question 7

What are the factors that can hinder the use of ICT in sport?

Majority of the respondents interviewed believed that electricity and lack of funding are major factors hindering usage of ICT in sports, though there are other factors like lack of basic facilities (computer system and internet facilities) lack of training for sports managers and coaches. Majority of the respondents said "since they came into the office, there has been no computer systems to work with not mentioning of other ICT tools" Some of the respondents said their organisations have computer laboratories for sports managers, but the computers are damaged and no one to fix them.

This reports is in agreement with the findings of Hsu & Sharma (2008), Nivala (2009), Ntshakala & Eyono-Obono (2013) and Balume, Edmore & Simbabrashe (2012), they reported some *of the factors that are hindering ICT usage such as lack of appropriate and adequate technology, lack of sports specific ICT training and lack of sports specific ICT software are major factors affecting the integration of ICT, the inadequate general computer literacy, and the limited expertise of professionals in that organisations regarding ICT have been noted as common reasons. Other factors include negative attitudes and lack of specific expertise and practical skill and technical-know- how on the actual use of ICTs in the learning process.*

Question 8

Are there activities in sport that ICT cannot be used for?

All the respondents agreed to the fact that ICT can be used for all sport activities. They also said that it is very difficult now to be

an international sports manager without ICT knowledge. This view is in line with the submission of Balume, Edmore & Simbabrashe (2012), that Information and Communication Technologies (ICTs) are a very important component of the transformation happening in all areas of human activity in the modern world. Within a very short space of time, ICTs have become one of the basic and indispensable components of modern society. The influence of ICTs has so far permeated every domain of human life. The introduction of complex ICT technology and hardware has made human activities faster, easier and more interesting. ICTs have revolutionized the learning and teaching of curriculum content in most training and educational establishments. Most modern training institutions and some educational institutions have adapted to this development by changing their classrooms environments from using simple black boards to white boards that are suitable for use with a projector. The availability of interactive white boards has made it easier for teachers to present stimulating and captivating lessons and for learners to understand concepts in a better way.

Question 9

Will the use of ICT in sports limit you in any form?

Majority of the respondents agreed that ICT would rather increase their productivity than limit them in any form, and that it enhances their efficiency and effectiveness. This is in agreement with the Anmol (2014), that with the aid of ICT, athletic health can be maintained and observed, and injuries treated, through the production of modern sporting technologies such as heart rate monitors, pedometers and body-fat monitors. Through this, a greater deepened knowledge of the

human body and its potential has been recognised, allowing athletes to train and compete in sports to a much older age. Participants safety at all times has also been made possible through the development of certain sporting equipment, such as helmets and body protection gadgets which are used in boxing, karate, taekwondo, and ice hockey to help prevent injuries. Modern sporting technologies have also made competition judging easier and more accurate, and spectator interest and excitement is enhanced by broadcasting and in-stadium displays such as the use of technological oriented scoreboards (Anmol, 2014). The electronic media which are also part of ICT play significant roles in sports and how sports are managed locally, nationally and internationally. Examples of such electronic media used in sports are Radio, television, videos, Mps, Handsets, computers, slides. ICT usage cut across sports management.

4.3 Discussion of Findings

The study investigated knowledge, attitude and management practices as correlates of information and communication technology usage among sport managers in Nigeria. The study revealed that sport managers in Nigeria claimed to have adequate knowledge of ICT usage in sports but it was further revealed that sports managers had limited knowledge of specific ICT tools and their usage in sports. This result agreed with findings of Ramzan (2004) that most of professionals in their discipline were not too sure about ICT tools in their professions and the ultimate benefits to their parent organisations. The kind of knowledge many of the sport managers assumed they have is the knowledge of word processing and using computers to do some other things that are not related to their job. This may be due to the fact, these sports managers lack knowledge of what ICT tools are, so they are not likely to know of what use they can be in sports. The results of the qualitative data when they were asked to mention some ICT tools, majority of them were only able to mention computer. One of them said ICT is the same as computer. This further buttress the fact that these sport managers do not know that ICT entails so many things which include social networking site, pedometers, heart rate monitors, virtual analysis software, simulation and games software, spreadsheet software, E-readers, management information system, administrative support system, body byte software, decision support system and web pages and therefore makes their knowledge limited.

The research found out that sport managers in Nigeria have positive attitude towards ICT usage in sports but further revealed limitations, and poor attitudes sport managers have towards specific ICT tools and their usage in sports. This is also in

agreement with the findings of Eguavoen (2011) that investigated library staff knowledge and attitude towards ICT usage, it was discovered that many have a positive attitude toward the use and implementation of ICT in the library. The reasons may include an understanding of the benefits of ICT and also applied to sports organisations. The findings of the study also showed that majority of the respondents (sport managers) do not go for periodic training on ICT usage due to some factors such as: lack of awareness of the use of specific ICT tools related to their specific duties; lack of available ready funds by the authority for training purpose, lack of interest in personal development and shady governmental policies towards ICT usage. The findings of the study show that, sport managers in Nigeria do not make use of ICT for management practices in sports which is due to the fact that, there is no policy about ICT usage in sports organisation in Nigeria. More so, the majority of the respondents express the view that there is no favourable environment for the use of ICT, and management patterns in sport does not give room for the use of ICT. There is no provision for training on specific ICT tools in sports. Furthermore, the percentage responses indicates, there were some negative attitudes from the respondents towards the use of pedometers, heart rate monitors, visual analysis software, simulation and games software, team beep test software, management information system and decision support system.

The study also established that the dependent variable (ICT usage) has positive relationship with the independent variables (knowledge, attitude and management practices). The magnitude of the relationship indicated moderate to slightly high relationship. A moderation relationship was found between ICT usage and knowledge,

attitude and management practices, a slightly high relationship was found between knowledge and attitude towards ICT usage.

The finding indicated that knowledge significantly correlate ICT usage among sport managers in Nigeria. This implies that having ICT knowledge is the first main thing for any good sport manager that wants to move with the world in this digital age. Likewise attitude also significantly correlate ICT usage among sport managers in Nigeria. Management practices also significantly correlate ICT usage among sport managers in Nigeria.

The finding revealed that there was a significant joint contribution of knowledge, attitude and management practices to ICT usage among sport managers in Nigeria. This implies that knowledge, attitude and management practices variables jointly contributed to ICT usage among the respondents. The outcome of this study supported the results of Eguavoen (2011); Yusuf and Balogun (2011) and Ahmad (2015) that knowledge and attitude of a person can jointly have effect on its Information and Communication Technology usage.

The finding of the study showed that there was significant gender difference in knowledge of ICT usage in sports. That is, males had a greater mean than the females. This meant that males had better knowledge of ICT usage in sports than females among the respondents. Although, the mean difference is not much which indicated that the females sport managers in Nigeria are gradually levelling up with the male counterpart in ICT usage. This finding is in agreement with Goktas (2012) that compared females sport staff to males sport staff that males have better ICT skills than the females and ICTs is more in use for their leisure time and take on more independent challenges for

learning ICT tools. Similarly, the study revealed that there was significant gender difference in attitude towards ICT usage in sports. This showed that males had a greater mean than females. This meant that males had better attitude towards ICT usage in sports than females among the sport managers in Nigeria. This assertion is also in line with Goktas (2012) that males sport staff have more positive attitudes than females sport staff.

The study showed that there was significant gender difference in ICT usage among sports managers in Nigeria. It was revealed that males had a greater mean than females. This indicated that males had better use of ICT in sports than females among the respondents. To buttress the preceding fact, Haussmann (2007) discovered that, there is no country in the world that has reached equality between men and women and could also cut across the use of ICT in sports. Broos (2006), Arnseth (2007), found that in the field of technology which include the use of ICT among sport managers, there are empirical evidences to suggest the continuance of male domination; men use computers and the Internet more than women, men have wider computer experience, spend more time online, report greater interests in and positive attitudes towards computer-related activities, and even appear to be more motivated to learn digital skills.

Due to the findings of this study there was significant difference in knowledge of ICT usage in sports among sports managers based on years of working experience. The findings revealed that respondents who are younger with short years of working experience had a greater mean than older men and women with long years of working experience. This fact becomes relevant due to the age brackets of 31-50 years, educational opportunities available to the younger ones and the willingness to be

involved. This showed that respondents with short years of working experience had better knowledge of ICT usage in sports than those with long years of working experience. This finding did not support the finding of Daniel (2015) that people with longer working experience have better knowledge than people with shorter working experience. He further explained that individuals with longer experience are supposed to be more effective in their use of ICT for the management of sports activities but this case may be different due to the disadvantage older nature that comes with senility. This could cut across the deployment and use of ICT for sports management as level of experience of sports administrators could influence a high tendency for such administrator to have an elastic knowledge in the use of ICT in sports and management activities. But in this study the people with shorter working experience have a better ICT knowledge than those that have longer working experience, it may be due to the exposure of the young workers to ICT usage in sports and the level of their ICT training. Thus, experience of the sport managers as a major demographic characteristics play vital role especially in Nigerian sports development (Daniel, 2015).

According to North (2009), experience in sports management provides sports managers with an edge over those without experience on the work. It exposes sport managers to the tips and tricks necessary for effective sports management which in this study could be referred to as innovations such as the deployment and use of ICT. Thus, it is important for sport managers and administrators to gain experience in sports management which could involve working in the sport and leisure industry as a fitness instructor or an administrator (Young, 2011). Also, the effect of demographic characteristics of sports administrators on their use of ICT in sports management

activities could be low in developing countries such as Nigeria, but it is pertinent to draw attention to the fact that such demographic characteristics of sport managers could have elastic effect on their knowledge and use of ICT. This is one of the major gaps this study has accomplished.

Also the study revealed that there was a significant difference in attitude towards ICT usage in sports among sport managers in Nigeria based on years of working experience. It was revealed that respondents with short years of working experience had a greater mean than those with long years of working experience. This showed that respondents with short years of working experience had better attitude towards ICT usage in sports than those with long years of working experience. This finding was not in line with the finding of David (2015), which reported that people with long year of working of experience had better attitude towards ICT usage than those with short year of working experience which include the ICT usage in sports management. The result of this research was so because the young ones learn faster and they can adapt easily in learning new technology invention than the older ones when it comes to ICT usage which also include the ICT usage in sports management.

According to the findings of the study there was significant difference in ICT usage in sports among sport managers in Nigeria based on years of working experience. The table revealed that respondents with short years of working experience had a greater mean value than those with long years of working experience. This showed that respondents with short years of working experience had better ICT usage in sports management than those with long years of working experience.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents the summary, conclusion and recommendations for the study.

5.1 Summary

This study examined Knowledge in, Attitude to and Management Practices as Correlates of Information and Communication Technology Usage among Sports Managers in Nigeria. Hence the independent variables were tested in relation to dependent variable. The tested independent variables were knowledge, attitude and management practices. Similarly gender and years of working experience were tested as criterion variables, while Information and Communication Technology (ICT) usage was examined as dependent variable. Consequently, four research questions were raised and answered, while ten hypotheses were formulated and tested.

In order to have a guide for the study, a conceptual frame work was developed. The study adapted the Theory of Acceptance Model 1 and 2 and the Theory of Planned Behaviour. Relevant concepts in relation to the tested variables were reviewed under various sub-headings. These include concept of sports management, sports management in Nigeria, sports administration in Nigeria, knowledge of ICT use in sports in Nigeria by sports managers in Nigeria. Also relevant literature was empirically reviewed on Information and Communication Technology in relation to knowledge, attitude and management practices.

Descriptive research design of correlation type was used for this study. The population comprised all sports managers in Nigeria. Simple random sampling technique and total enumeration were used in selecting respondents for the study. A total of one thousand three hundred and fifty (1,350) respondents were used for the study. A self structured questionnaire and in-depth interview were used as instruments. Descriptive statistics of frequency counts, percentages and pie chart. Inferential statistics of Pearson Product Moment Correlation (PPMC) t-test and regression were used for data analysis. All the hypotheses were tested at 0.05 level of significance. Also, thematic content analysis was used to analyse the qualitative data.

Sport managers in sports zones in Nigeria have adequate knowledge of ICT usage in sports but had poor knowledge of specific ICT tools and their usage in sports. Also, sports managers in sports zones in Nigeria have positive attitude towards ICT usage in sports but had poor attitude towards specific ICT tools and their usage in sports. Majority of the respondents (sports managers) do not go for periodic training on ICT usage. It was established that the dependent variable (ICT usage) has positive relationship with the independent variables (knowledge, attitude and management practices). The magnitude of the relationship indicated moderate to slightly high relationship. A moderation relationship was found between ICT usage and knowledge, attitude and management practices, a slightly high relationship was found between knowledge and attitude towards ICT usage.

5.2 Conclusion

Based on the findings of this study, it was concluded that sport managers in sports zones in Nigeria have knowledge of ICT usage but had poor knowledge of specific ICT tools and their usage in sports. It was also concluded in this study that sports managers in sports zones in Nigeria have positive attitude towards usage of ICT in sports but had poor attitude towards the specific ICT tools and their usage in sports.

It was concluded that knowledge and attitude significantly correlate ICT usage among sports managers in sports zones in Nigeria. It was also concluded that management practices also significantly correlate ICT usage among sport managers in sport zones s in Nigeria. It was furthermore concluded that knowledge, attitude and management practices variables jointly contributed to ICT usage among sport managers in sport zones in Nigeria. It was further concluded that males had better knowledge of ICT usage in sports than females among the sport managers in sport zones in Nigeria. Also concluded that males had better attitude than females towards the ICT usage among sport managers in sport zones in Nigeria.

5.3 Recommendations

Based on the findings of the study, the following recommendations were made:

1. Periodic training on ICT specific tools for sports management should be organised for all sports managers at all levels in Nigeria.
2. Evaluation should be done from time to time concerning ICT usage in sports for all sports managers in Nigeria.
3. The Nigeria government should find permanent solution to issue of electricity in all our sport organisations in Nigeria as this may be a limiting factor in the use of ICT among sports managers.
4. Specific ICT tools usage in sports should be inculcated into the sports management curriculum in Nigeria
5. Nigeria government should provide adequate fund for training and buying the needed ICT equipment in our entire sport organisations.
6. Government should employ fresh graduates that are professional and young in the field of sports that can be trained on new invention on ICT tools in improving sports performance in Nigeria.

5.4 Contributions to Knowledge

The findings of this study provided empirical data on the use of ICT among sports managers in Nigeria. It also established and confirmed the knowledge of specific ICT tools usage among sports managers in Nigeria. The findings of the study would be of great benefit to sports organisations at all levels, including tertiary institutions, sports councils and teams in Nigeria. It would help sports managers to understand the importance of the use of ICT gadgets as part of their duties as managers to perform and articulate when the activities would be performed and how they would be performed in order to improve performance of athletes in sports. The findings of this study provided information on how sports personnel which cuts across sport managers, coaches and athletes can position themselves especially with the recent global trend in ICT deployment and use to enhance sports performance, especially with regards to Nigeria. Information provided by this study would be useful to school authorities, governing

councils, physical education teachers, instructors and sports managers in planning and developing strategies on how to integrate ICT into Nigerian sports. Such integration would obviously be to the advantage of the institution in question.

In addition, the resultS of this study provided information on major factors that could either enhance or reduce the deployment and use of ICT and how sports managers and other personnel can tackle such factors as provided in this study. Such information on the factors as provided by this study would help guide various authorities, governing councils, physical education teachers and ministries of education in planning, provision and maintenance of sports activities and selecting sports managers or coaches who would assume the position to manage or train athletes in Nigeria. Also, results of this study established the need for continuous research interest within the area of sports management where other sectors with bias for sports programmes implementation could draw inferences for their sports personnel, sports funding, sports facilities, sports equipment, athlete's motivation and participation in sports. Finally, the findings of this study brought to lime-light basic factors that can enhance the use of ICTs in sports, thus influence their performance not only at the local level but also at the international level to be able to meet global standard, win an international recognition and also enhancing the image of the nation.

5.5 Suggestions for further study

Based on the limitations of this study, the following suggestions were made for further studies.

1. Experimental study to improve the knowledge, attitude and use of ICT among sport managers in Nigeria.
2. Knowledge and use of specific ICT tools for sport among sport managers in Nigeria. Studies should investigate gender difference in use of specific ICT tools for management of sports in Nigeria.
3. Intervention programme to improve the use of ICT among sports managers in Nigeria.

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APPENDIX I

DEPARTMENT OF HUMAN KINETICS AND HEALTH EDUCATION
UNIVERSITY OF IBADAN

CORRELATES OF INFORMATION AND COMMUNICATION TECHNOLOGY USAGE AMONG SPORTS MANAGERS IN NIGERIA

QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to investigate the level of knowledge, attitude and management practices as correlates of information and communication technology usage among sport managers in Nigeria. Please feel free to provide necessary information with regards to the questions provided in this questionnaire as they would strictly be used for research purpose only.

Thanks.
Bamitale Toba
(Researcher)

Section A: Demographic Characteristics

1.	**Gender:** a. Male [ ] b. Female [ ]
2.	**Age**: a. 30years and below [ ] b. 31-40 [ ] c. 41-50 [ ] d.51-60 [ ] e. 61 and above [ ]
3.	**Highest Educational Level:** a. NCE/OND [ ] b. HND/BSc [ ] c. MSc [ ] d. Ph.D [ ] e. Others [ ]
4.	**Years of working experience:** a. 1-10years [ ] b. 11years-above [ ]
5.	**Religion:** a. Christianity [ ] b. Islam [ ] c. Traditional [ ]

Section B: Knowledge of ICT Usage in Sport Questionnaire (KICTUSQ)

Please tick as applicable to you. There are no correct or incorrect answers

S/N	Items	SA	A	D	SD
1.	I know ICT can be used in sports				
2.	I know that MIS is a useful tool in sports				
3.	Body byte software has importance in sports				
4.	Use of visual analysis software is relevant in sports				
5.	I know that simulation can be used in sports				
6.	I am aware of the importance of game software in sports				
7.	I have a good knowledge of decision support system in sports				
8.	Team beep test software is a useful tool in sports				

Rate your knowledge on the use of the following ICT tools in sports. 1-Not Good, 2- Fairly Good, 3- Good, 4- Very good

S/N	ICT Tools	1	2	3	4
i.	Internet				
iii.	Flash Drive				
iv.	VCD/DVD,				
v.	Use of email				
vi.	Use of You tube				
vii.	Use of digital cameras/videos				
viii.	Video editing				
ix.	Mobile phones				
x.	Social networking sites				
xi.	Personal computers/laptops				
xii.	Pedometers				
xiii.	Heart rate monitors				
xiv.	Visual analysis softwares				
xv.	Simulation and games softwares				
xvi.	E-Readers				
xvii.	Database softwares				
xviii.	Word-processing softwares				
xix.	Desktop publishing softwares				
xx.	Presentation softwares				

xxi.	Spreadsheet softwares				
xxii.	Team beep test softwares				
xxiii.	Body byte softwares				
xxiv.	Management Information Systems				
xv.	Administrative support systems				
xvi.	Decision Support Systems				
xvii.	Web pages				
xviii.	Others (Please specify)				

Attitude Towards ICT Usage in Sports Questionnaire (ATICTUSQ)

S/N	Items	**SA**	**A**	**D**	**SD**
1	ICT cannot be use effectively in sports				
2	Using ICT in sports is a waste of time				
3	Using ICT in sports is a waste of money				
4	ICT waste a lot of time when using it in sports				
5	There is no privacy when you use ICT in sports				
6	ICT usage in sports does not give accurate result				
7	It is not possible to use ICT in sports				
8	I can never accept the use of ICT in sports				
9	Using computer in sports is for the advanced nations				
10	Nigeria is not developed enough to use ICT in sports				
11	Better area of Nigeria economy are yet to be using ICT not to talk of sports				
12	Sports is the least area that will use ICT				
13	I detest using heart rate monitor				

What is your attitude towards the use of the following in ICT tools in sports? 1- Negative, 2-Indifference 3- Positive

S/N	ICTs Tools	1	2	3
i.	Using the internet			
ii.	Using the Intranet			
iii.	Using the Flash Drive			
iv.	Using the VCD/DVD,			
v.	Use of email			
vi.	Use of You tube			
vii.	Use of digital cameras/videos			
viii.	Using Video editing			
ix.	Using Mobile phones			
x.	Using the Social networking sites			
xi.	Using the Personal computers/laptops			
xii.	Using the Pedometers			
xiii.	Using the Heart rate monitors			
xiv.	Using the Visual analysis softwares			
xv.	Using the Simulation and games softwares			
xvi.	Using the E-Readers			
xvii.	Using the Database softwares			
xviii.	Using the Word-processing softwares			
xix.	Using the Desktop publishing softwares			

xx.	Using the Presentation softwares			
xxi.	Using the spreadsheet softwares			
xxii.	Using the Team beep test softwares			
xxiii.	Using the Body byte softwares			
xxiv.	Using the Management Information Systems			
xv.	Using the Administrative support systems			
xvi.	Using the Decision Support Systems			
xvii.	Using the Web pages			
xviii.	Others (Please specify)			

Section C: Management Practices in Sports

S/N	**Items**	**SA**	**A**	**D**	**SD**
1	There is a policy on ICT usage in sports				
2	There is no support for ICT in sports from the managers of sports				
3	There is no favourable environment for the use of ICT in sports				
4	There is no provision of computers in my office				
5	There is no provision of internet facilities by the management				
6	There is no favourable management decision on the use of ICT				
7	There is no provision for training on ICT use in sports				
8	No provision of fund by the management for the use of ICT in sports				
9	Management pattern in sport does not give room for the use of ICT				
10	Most of the conditions needed for the use of ICT in sports are not in place in the sports ministries				

APPENDIX II

THE IN-DEPTH INTERVIEW GUIDE ON KNOWLEDGE IN, ATTITUDE TO AND MANAGEMENT PRACTICES OF ICT AS CORRELATES OF INFORMATION AND COMMUNICATION TECHNOLOGY USAGE AMONG SPORTS MANAGERS IN SELECTED SPORT ZONES IN NIGERIA

1. Have you heard about ICT usage in sports management before?
2. Do you believe that ICT can be used for sporting activities?
3. Do you have knowledge of ICT usage in sports and what are the activities relating to sports that you can use ICT for?
4. When last do you employ the use of ICT in this your organisation and what was it used for?
5. How often do you go for training on ICT use in sports?
6. What are the advantages of using ICT for sporting activities?
7. What are the factors that may hinder the use of ICT in sports?
8. Are there activities in sports that ICT cannot be used for?
9. Will the use of ICT for sports limit you in any form?

APPENDIX III

The Researcher with the Director of Sports Edo State Sports Council

The researcher with the research assistants and the Director of Sports Edo State Sports Council

Some of the respondents filling the questionnaire in Edo State Stadium

The researcher with Director of Sports Oyo State Sports Council

The research with one of the research assistants in Oyo State

The research with the Director of Sports Kaduna State Sports Council

The research with some of the respondents in Kaduna State

The researcher with the Sports Director Enugu State Sports Council

The researcher in National Stadium Abuja

The researcher with the research assistants in Kaduna State

The researcher with the research assistants in National Sports Commission, Abuja

The Researcher in Enugu State

The researcher in Kaduna State Stadium

` The researcher with one of the assistants in National Stadium, Abuja