



Research Paper

## Knowledge of ICT Use as Predictors of Information and Communication Technology Usage among Sports Managers in Nigeria

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**ABSTRACT:** Sports management in Nigeria have a diverse range of information needs. If it were not for ICTs usage by sport managers in advanced countries, there wouldn't have been instant replays, the headset for coaches, wireless microphones for referees, goal line technology and the newly adopted video assistant referee. But in Nigeria some of these ICT tools have not been constantly used or not used at all in our sport meets by sport managers. This study therefore focused on knowledge of ICT use in sports as predictors of ICT usage among sport managers in Nigeria. The moderating effects of gender and years of working experience were also examined. Davis's theory of Technology Acceptance Model (TAM) provided the framework for the study. Descriptive research design of correlational type was used. Simple random sampling technique was used to select a state from each of the six geo-political zones. Total enumeration technique was used to select all sports managers from the selected state sports councils, sport associations and National Sports Commission. A total of one thousand two hundred and ninety seven (1,297) male and female sports managers were used. Knowledge of ICT Use in Sport ( $r=0.85$ ) and ICT usage ( $r=0.79$ ). Data were analyzed using descriptive statistics of percentage and inferential statistics of multiple regression and independent sample t-test at 0.05 level of significance. Participants were male (849) and female (448) with a mean age of  $41.7 \pm 2.8$  years. There was gender difference in knowledge of ICT (76.42; 71.71), in favour of males. Respondents with shorter years of working experience had better knowledge of ICT (75.71; 74.02) than those with longer years of working experience. Knowledge of ICT usage predicted information and communication technology usage among sport managers in Nigeria. There is need for periodic and continuous training for sports managers in Nigeria on usage of specific ICT tools in sports management.

**Keywords:** Knowledge, Information and communication technology usage, Sport managers.

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### I. INTRODUCTION

The increasingly significant role of sports in modern society, sportsmen and women are seen more as a mirror of their respective societies (Iheanacho et al., 2013). To this end, every nation aspires to be a sports superpower at the local and global levels. Also, to be able to compete at and meet global standard, sports organizations and nations tend to improve their performance in sports by deploying various methods and strategies such as the use of Information and Communication technology. 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 to 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, etc. (Rouses, 2005). Ajiferuke and Olatokun (2009) 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 21<sup>st</sup> century cannot be overemphasized. ICTs that can be deployed and used for sports are pedometers, heart rate monitors, digital video cameras and visual analysis software, 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, 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 have 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 (Pankey and Henrich, 1999), and those teaching sports coaching (Tailor, 1999), as well as distance education (Rushall, 1999) and web based learning (Chappelet, 2001).

On a more general form, the use of ICT in every activity such as sports can be grouped into software and hardware. Software are designed applications that the sports managers can work with e.g. Word processing packages, sports analysis software while hardware are the ICT tools like computers, Ipad, tablets etc. (Bamitale and Asagba, 2015). Although, ICT hardware and software are costly to obtain and maintain, they provide elastic benefits to sports activities and managers (Thomas and 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, and joystick. Iheanacho et al. (2013) stated 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 software 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 software are very widespread as most standard office computer software packages will typically have a simple database programmes in addition to word processing, spreadsheets and presentation applications (Rosandich, 2008).

## **II. STATEMENT OF THE PROBLEM**

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 and 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 and Nigerian sports to

stand international standard at the long run. To this end, this study examined knowledge as predictor of information and communication technology usage among sports managers in Nigeria.

**Research Hypotheses**

The study tested the following research hypotheses:

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

**Hypothesis 2:** There will be no significant gender difference in knowledge of ICT use for sports among sport managers in Nigeria.

**Hypothesis 3:** There will be no significant difference in knowledge of ICT for sports among sport managers in Nigeria based on years of working experience.

**Methods and Procedure**

Descriptive research design of correlational type was adopted for this study. The population of this study comprised all sport managers in Nigeria. One thousand two hundred and ninety seven (1,297) 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. 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 zone making six (6) states from the six zones and total enumeration was used to select all the sport managers in the six zones.

**Research Instrument**

The research instrument used for this study was a self-designed and structured questionnaire. The Knowledge of ICT Usage in Sports Questionnaire (KICTUSQ) with reliability coefficient of 0.85 and ICT Usage in Sports Questionnaire (ICTUSQ) had reliability coefficient of 0.72.

**III. RESULTS**

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

**Table 1:** 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	.000
Knowledge	.193	.118	.551	5.634	.000

The table above revealed for knowledge, the unstandardized regression weight (B), the standardized error of estimate (SEB), the standardized coefficient, the t-ratio and the level at which the t-ratio is significant. As indicated in the table, knowledge significantly predict ICT usage among sports managers in sports zones in Nigeria contributing about 56% ( $\beta=.551$ ,  $t=5.634$ ,  $p<0.05$ ). The hypothesis is therefore rejected.

**Hypothesis 2:** There will be no significant gender difference in knowledge of ICT use for sport among sport managers in Nigeria.

**Table 2:** t-test table showing 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	.001
	Female	448	71.7085				

The table above 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 3:** There will be no significant difference in knowledge of ICT for sports among sports managers in Nigeria based on years of working experience.

**Table 3: t-test table showing 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
Knowledge of ICT	Short (1-10years)	766	75.7098	1.6929	3.632	1295	.003
	Long (11years and above)	531	74.0169				

The table above showed that there was significant difference in knowledge of ICT usage in sports among sports managers 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.

#### IV. DISCUSSION OF FINDINGS

The study investigated knowledge as predictors of information and communication technology usage among sport managers in Nigeria. The finding indicated that knowledge significantly predict ICT usage among sport managers in Nigeria. This implied 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. 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 organizations. 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 buttressed 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, spread sheet 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 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.

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 of old 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).

## V. CONCLUSION AND RECOMMENDATIONS

It was concluded that knowledge significantly predicts ICT usage among sports managers in Nigeria. It was also concluded that males had better knowledge of ICT usage in sports than females among the sports managers in Nigeria and furthermore concluded that respondents with short years of working experience had better knowledge of ICT usage in sports than those with long years of working experience.

The following were recommended:

- Evaluation should be done from time to time concerning ICT usage in sports for all sports managers in Nigeria. This will ensure that all sports managers improve their knowledge of ICT use.
- Female sports managers should be encouraged to utilize ICT in order not to be left behind. Barriers that could hinder ICT usage such as electricity should be fixed in all our sport organizations in Nigeria as this may be a limiting factor in the use of ICT among sports managers.
- Specific ICT tools usage in sports should be inculcated into the sports management curriculum in Nigeria so that all sports managers irrespective of age would be able to utilize ICT.
- Nigeria government should provide adequate funds for training of sports managers and purchase the needed ICT equipment in our entire sport organizations in Nigeria for optimal development and operational efficiency of our sports managers.

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