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APPRAISAL OF DIGITAL TECHNOLOGY ADVANTAGES IN SPORTS ADMINISTRATION IN KADUNA METROPOLIS, NIGERIA

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ABSTRACT

Importance of sports in the life of an individual and in every country of the world cannot be overemphasized or underestimated. This is because, sports make people to develop physical strength and make one to keep fit always. It also brings wealth and praise to the country that excel in sports. This paper examined the advantages of applying digital technology in sports administration in Kaduna city. The population of the study were all athletes in Kaduna city. From the population, a total of One hundred and twenty (120) athletes were selected using purposive sampling technique. The study was a descriptive survey research. Two research questions were raised up for this study. The instrument used in collecting facts was a questionnaire validated by the experts in sports. The reliability of the instrument after a pilot-testing amount to 0.75. The administration of the questionnaire was carried out by the researcher during sports activities in Ahmadu Bello Stadium, Kaduna City. The facts collected were analyzed using descriptive statistics of mean and t-test. Finding of the study shown that the advantages of applying digital technology in sports administration is high and splendid. It was also indicated that there is significant difference in the appraisal of male and female athletes regarding the advantages of digital technology. Based on these findings, it was recommended that the government should assist the sport administrators and athletes in training and procuring necessary digital technology equipment and tools to aid effective administration of sports.

Keywords: Appraisal, Digital Technology, Advantages, Sports Administration.

Introduction

Technology plays an important roles in today's sport activities. With its use in sports activities, athletes can improve their performances. (Awujoola-Olarinoye, 2019, Pp.77-87) The uses of information technology in sports comprise, the use of sporting kits; clothing and wearable: facilities; competition decision and formats; media broadcasting and communications as well as performance analytics. This is to say that, information communication technology and sports have had something of rock-strewn connections over the years as noted by Bass & Eynon, (2009). As reported in Turner (2013 P*p. 18-19,271– 273.*) the beginning of sports and technology did not always seem like they most blend but now, with the current union of sports and technologies many functions are fused into one small devices. Technology is progressively playing important role in the development of sport and enhances performance in all faces. Thus, application of technology permit effective training, motivations, management and tracking of athletes, accuracy of results, enhanced spectator observing, developing performance and preventing injuries, amongst many more functions (Busch,

1998). Technology in sports is a practical means by which athletes attempt to improve their training and competitive settings in order to enhance their overall athletic performance. It is believed as a practical means or tool utilized to track selected ends (Awujoola-Olarinoye, Sani & Omiola 2019 Pp.65-74).

Philip, (2019) stated that technology is shifting the face of modern sports, sports psychology and coaching. State-of-the art technologies are used to optimize performance in sports as diverse as cycling, speed-skating, swimming, golf, skiing, surfing, football/soccer ball, tennis racket and ball, running, facilities and many more. Technology in sport today is found in uncountable forms with each innovation has potentially positive and beneficial outcomes. Technologies used in sports can be characterized into six types. The categories include: self-technologies, rehabilitative technologies, landscape technologies, movement technologies, tools technologies and database technologies.

Technologies encompass other kinds of athletic innovations which include surgical procedures, prosthetic/bionic limbs, sport psychological interventions and genetic engineering. The equipment such as a prosthesis or a wheelchair are parts of self-technologies used for some persons with a disability to carry out their daily living (Haisma, VanDerwoude, Slam, Bergen & Bussmann, 2006; Pasquina, Bryant, Huang, Roberts, Nelson & Flood, 2006). In addition, technology such as an energy storing prosthetic foot, make an athletes with lower limb amputee's walk faster and more efficient (Brodtkorb, Henriksson, Johanesen-munk & Thidell, 2008).

- ¶ Landscape technologies are forms of technology which involves the sporting environment and the way spectators watch sport events. Expanded landscape technology is the increase of modern multipurpose sport complexes, complete with Jumbo Tron screens retractable domes, soaring cameras, Mondo tracks and artificial grass (Bates, 1996). Indeed, the incursion of sport technologies has deeply changed the landscape of sport, exercise science, and perhaps has begun to change the athletic body. He further opined that Implement technologies includes equipment that athletes kick, hurl or otherwise propel. Other examples include football/soccer helmets equipped with warning devices and radios; shark suits that allow swimmers to move efficiently slice through the water and high-tech running shoes, golf clubs and tennis rackets. This technology uses tools (pedometer or balance board), media (video, audio, or both), and social interaction (playing with another person) to persuade individuals to adopt the behaviour without their actually knowing it.

Brodtkorb, T., M. Henriksson, Johannesen-Munk, K. & Thidell, F. (2008). Rehabilitative technologies are substances and procedures used to treat severe injuries. They also include medicine used by healthy athletes who just want to counter the otherwise debilitative effects of their training routines. Typically, these technologies are located in sports clinics and training facilities and are administered by specialists in athletic training or sports medicine. Rehabilitative technologies include any kind of anti-inflammatory chemical, such as acetylsalicylic acid. Rehab technologies also include whirlpool machines and ultrasound equipment that athletes use to treat sore muscles and joints. More recent developments such as electronic stimulation or slim send currents into the affected area to stimulate blood flow and aid in the healing process. Rehab technologies may also be viewed as performance

enhancing because they allow athletes to train and compete at a level they otherwise could not.

Movement technologies refer to those devices and procedures that are designed to assess the form and efficiency of an athlete's body. The most common of such include videotape analysis, although there are much more sophisticated instruments that provide detailed computerized information on an athlete's biomechanics. Besides helping to improve an athlete's existing technique, the data yielded by movement techniques may also facilitate conceptual or stylistic shifts that allow the athlete to compete in a mechanically, aesthetically and kinesthetically novel manner. The use of (mini) digital cameras, body-worn sensors, wireless transmission, and mobile computers has revolutionaries the way coaches and sport psychologists interact with individual players and teams. (Pasquina, Bryant, Huang, Roberts, Nelson, &Flood 2006) .

Database technologies involves computer innovations that allow athletes and coaches to identify and understand everything they need to know about their opponents and themselves. Database programme have greatly affected the way that many and most professional coaches and players do their business. Informational feedback technologies (a Nike GPS sports watch; a Polar heart rate monitor) allow individual athletes to continuously track their progress on important physiological and performance parameters (Philip, 2019). It is not enough to have these technologies but it is equally good to assess the level of their importance in sports administration and this is the gap this current study is out to fill.

Purpose of the Study

The main purpose of this study was to appraise the digital technology advantages in sports administration in Kaduna metropolis, Nigeria. Specifically, the study:

1. Appraise the advantages of digital technology in sports administration
2. Determine the difference in the appraisal of advantages of digital technology in sports administration based on gender.

Research Questions

The following questions are generated to guide the conduct of the study:

1. What are the advantages of applying digital technology in sports administration?
2. Is there any difference in the advantages of applying digital technology in sports administration based on gender?

Research Hypothesis

Ho1: there is no significant difference in the appraisal of advantages of applying digital technology in sports administration based on gender

Procedure

The study explained the procedure that were used in the conduct of this study. It described the research design, population, sample and sample techniques, research instrument, validation of the instrument, administration of the instrument and statistical techniques. Descriptive survey research was used this is due to the fact that there was no experimental in which manipulation and control group was involved. In this case, the data required exist and were sourced through the research instrument.(Frederick and Farzano, 2006) The target

population was all sports athletes in Kaduna city. A total of One hundred and twenty (120) athletes were selected for this study using purposive sampling technique. Two research questions were raised to guide the conduct of the study. The instrument used in collecting data was a questionnaire validated by the experts in sports. The reliability of the instrument after a pilot-testing amount to 0.75. The administration of the questionnaire was carried out by the researcher during sports activities in Ahmadu Bello Stadium, Kaduna. The data collected was analyzed using descriptive statistics of frequency count, percentages, mean and t-test statistics analysis.

Results

Research Question One

What are the advantages of applying digital technology in sports administration?

Table 1: Analysis and Results of Sport Administration

Statements	Very High		High		Very Low		Low	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
What is the level of importance of self-help technologies such as prosthetic/bionic limb, wheel chair and prosthetic foot in sport administration?	50	42	40	33	10	08	20	17
Rate the level of importance of land scape technologies such as modern sporting environment, artificial grass and modern multi-purpose complexes in sport administration	30	25	70	58	08	07	12	10
What is the level of importance of implementation technologies such as football/soccer helmet, golf clubs and tennis racket?	10	8.3	88	73	12	10	10	8.3
Rate the importance of rehabilitative technologies such as inflammatory chemicals, whirlpool machine and ultrasound equipment in sports administration.	35	29.2	72	60	06	05	07	5.8
What is the importance of movement technologies such as digital camera, body worn sensor and mobile computer in sports administration?	42	35	65	54.2	03	2.5	10	8.3
Rate the importance of database technologies such as computer innovation	25	20.8	65	54.2	08	6.6	22	18.3

The results in table 1 show that the majority of the athletes agreed that the level of the importance of applying digital technologies in sports administration is high. In other words,

the application of these six categories of technologies in sports administration is of great importance,

Research Question Two

Is there any difference in the advantages of applying digital technology in sports administration based on gender?

Research Hypothesis One

Ho1: there is significant difference in the appraisal advantages of applying digital technology in sports administration based on gender.

Table 2: Analysis and Results of the Difference in the appraisal of advantages of applying digital technology in sports administration based on gender

Gender	N	Mean	Std Dev.	df	t	P	Remark
Male	85	15.42	7.782	118	-3.742	.000	Significant
Female	35	11.98	5.036				

In the table 2 above, there is significant difference in the appraisal of advantages of applying digital technologies in sports administration based on gender $t(118) = -3.742$, $p < 0.05$ testing level. This implies that, the null hypothesis is rejected. Male athletes rated the application of digital technologies in sports administration high than their female counterparts.

Discussion

The findings of this study revealed that the athletes in Kaduna Metropolis appraised the importance of applying digital technologies in sports administration to be high. This is to confirm that using technologies in sports administration is of immense blessings to athletes, coaches and other sports administrators. It was stated there is significant difference in the appraisal and importance of technologies based on gender. This implies that male athletes valued the application of technologies more than their female counterparts. This finding is in support of Olasehinde and Usman (2016) on Teachers' Information Communication Technology knowledge, experience and secondary school students' attitude to biology in Kwara State where male students show more positive attitude to the use of information technology than the female.

Conclusion

In conclusion, the level of the importance of applying technologies in sports administration is high and male athletes valued the use of technologies more than the female athletes.

Recommendations

Based on these facts from the analyzed data and the limitation of this study, the researcher recommended that:

1. Sports law makers should procure more digital technologies to be used in sport administration in Nigeria.

2. Information and Communication Training should be arranged by the Government to assist Sports Administrators and athletes on the use of new digital technologies in sports administration and more necessary digital technology tools should be procured for effective management of Sports.
3. Post-Primary and Tertiary Institutions Sports Administrators should set up internet and website to serve as a link between the management, Coaches, athletes, employees and the outside world.
4. Donations should be encouraged from individual, companies, organizations for the building of Information and Communication Technology Centers in our Stadia and Schools for the use of all concerned in Sports.

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