



Category: Information Technology in sports



DEVELOPMENT OF SPORT SCIENCE BY USING INFORMATION TECHNOLOGY

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ABSTRACT

The realization of Scientific and comprehensive attitude toward the development of sport requires a detailed analysis of all factors and issues at the highest level possible. India as one of the developing countries has been successful in terms of indices of communication and information technology application among developing countries. With the economic development and scientific technological progress, information technology rose rapidly, and become the dominant factor of socioeconomic development. Information technology applied in nearly all industries, in the field of sport science, information technology promotes the development of sports science, and sports science development cannot be separated from the information technologies.

Recent attention paid on part of the policy makers in developing ICT indicators including increased mobile and fixed lines per capita, increasing the number of personal computers, automation of administrative affairs, increased number of Internet users has necessitated enhancement of standards in ICT development. Proper utilization of the above-mentioned facilities and indicators can be dramatic effects in sports and exercise and help us get away from the traditional sport system. In addition, information technology meets demands of people through gathering, distributing, processing and analyzing of information

The Study is a descriptive survey type. The statistical population of this study was 100 students of whom 50 selected based on Krejcie and Morgan tables. The purpose of this study is to describe the status of information technology use among Physical Education students. This study analyze the application of information technology in the field of sport science, explain the importance of information technology application to develop sports science, proposed creating a unique means of information technology in sports to make sports science have a better development.

INTRODUCTION:

There is no formal definition of sports. It can be a game, a fitness activity or an organized competitive sport. Competitive sports are governed by a set of rules often designed by national or international sports organizations. Sports can also be a recreational activity. The same sport can be played as a competitive sport or a fitness activity (for instance, swimming or cycling). Different people treat sports differently. For some, it is a profession, while for most it is just a means of recreation and staying fit. Sports can be an indoor activity or an outdoor activity. It can be a team activity (for example, cricket and hockey) or an individual activity (for example, squash). While most sports are associated with some form of physical activity, there are some sports, like chess, which do not need strenuous physical activity. Globally, there are a large number of sports, and each can be played in multiple formats. For example, volleyball can be played on court, grass, or beach. Similarly, cricket can be played in the one-day, test match and twenty-over formats. Some sports have

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received international recognition while others can be country specific, regional and even local, played by a limited number of people. The recognition of sports, its classification and formats may vary across countries.

All sports require some kind of infrastructure, but the requirements vary across different sports. For example, team sports like football, cricket and hockey require stadiums while chess can be played in a room with a chessboard. Similarly, all sports require some sports product. For instance, a person can stay fit by running for which he needs a running shoe or by skipping for which there is a requirement of skipping rope. Sports like cricket, hockey and tennis require equipment like bat, balls, kneepads, specialized shoes and racquets. Some sports like shooting and motor racing require sophisticated infrastructure and technology-oriented, expensive equipment while equipment for sports like cricket, badminton and tennis are available at all price ranges and are easier to purchase and store. Overtime, across all sports, equipment has become more sophisticated. For instance, lightweight metal sticks have now replaced the wooden hockey sticks. In the past, many sports equipment/goods were unbranded, but with increased sophistication and research and development, branding and specialized equipment manufacturers have emerged.

Generally, information technology means using information technology tools and management information including a set of tools and services for the production, storage, processing, distribution and exchange of information. In other words, IT refers to a wide range of information technology (IT) based - computer technology and Internet information and communication (Chung, 2007 & Landry, 1995). This concept widely includes related technologies such as radio, TV, video, CD player (CD) and DVD (DVD), telephone, mobile, computer, electronic journals and the Internet and all of them at the top databases (Dibrell & Miller, 2002). These mechanisms facilitate transfer of information forms, such as content, audio and video. In addition, information technology meets demands of people through gathering, distributing, processing and analyzing of information (Dedrick, Gurbaxani & Kraemer, 2003). Modern sports organizations have been complicated in the complex competitive environment due to environmental, organizational and technology changes. In fact, in this competitive environment and virtual organizations, sport authorities need to consider a variety of modifications in the organizations, and most of them probably need an overall review and redesign in their organizations structure (Chien, 2007).

Today, the status and usage of information technology students is considered as a challenge for universities, because they pursue information technology toward teaching and learning development and research processes. Of course, some contradictory facts have been reported. For example, Bad Peima found usage of information technology by student's graduate degree in Agricultural Extension and Education at a low level (Dibrell & Miller, 2002).

Landry conducted a study in 1995, in this regard. His results showed that Organization decision support systems (ODSSs) greatly increased recognition (Heysung, 2002, Dadryk *et. al.* 2003) carried out a Review on the 55 researches, and concluded that further investment in information technology leads to an increase in productivity through Changes such as increased decentralization in decision-making as well as tasks and jobs restructuring (Larena *et, al.*, 2008).

Glenda Gay & Sonia McMahon (2006) in a study on 166 students in the country found these results: over 90% of them had used the virtual courses (Green,2001). . Most students have a positive attitude towards ICT. Plus, Most of them had access to computers and the Internet.

In this study, university administrators were recommended to pay more attention to the differences of gender and age of the students for greater use of information technology and creating a positive attitude towards

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Vol. 2. Supplementary issue 3.2015 (October)



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3. Databases
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REVIEW OF LITERATURE:

Peoples' passion for sports, their level of participation and their willingness to pay for sports products influences the sports retail market. In each country, certain sports dominate. These sports have huge fan followings and this drives the market for sports products and accessories. For instance, in India, cricket is the most popular sport; in the United States (US), it is American football, basketball and baseball; in Canada, it is ice hockey; in Germany, it is soccer; and in Italy, it is football and water polo. The retail of sports products is closely related to the status and promotion of sports in a particular country. Not all sports receive the same level of viewership or advertisement revenue. For instance, in India, cricket receives high advertisement revenue compared to sports like swimming.

The availability of sports infrastructure affects participation. If indoor and heated swimming pools are not available, swimming becomes a seasonal activity. The topography of a country also influences sports participation. For instance, in Switzerland and northern Italy, people participate in skiing while in southern Italy, water sports are common.

With the Olympic glory in the national fitness program planning and the smooth development of China, the public's concern for the sport continues to grow, while their physical health is also increasingly fervent desired, the country launched a modern technological construction of sports facilities.

Information technology applications in the sports venues in the increasingly wide range of modern venues and facilities, including not only the intelligent application of office automation systems, intelligent systems and sports facilities, communication systems for event management, ticket access control system, contest information systems, television systems, Command and Control System, but also in action including the use of computer technology, image analysis, computer-aided training athletes, sports training system and related data entry systems, decision support systems. The students for greater use of information technology and creating a positive attitude towards:

1. National Sport Information System.
 2. Information mission
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- 1. National Sport Information System:** It is believed that the application of information technology in the form of national information system leads to institutional restructuring and reducing country's leading executive in the organization. Of course, increasing in flexibility will, in turn, end up with increased internal efficiency and competitive power of the entire system and international cooperation.

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Vol. 2. Supplementary issue 3.2015 (October)



2. **Information mission:** It is to create a network by which any organization (or individual) quickly and easily receives the information they need. Of course, creating information resources (hardware / software) can't work without the storage and organizing methods of information resources.
3. **Databases:** Information that flows in the network of information stored in databases and updating information stored is one of the main tasks of this section. Databases are fed in three ways:
 - a. Extracting information from information sources like the information contained in the publications and bulletins.
 - b. Getting Information through questionnaire about the organizations that their activities are carried out in non-mechanized fashion and.
 - c. Receiving information from operational systems (direct Download) regarding the organizations that their activities are carried out automatically.
4. **Creation of information infrastructure:** If sectorial and national systems want to exchange information, it is necessary for them to use a common language of information across the board. Creating a common information language implies identifying the assigned unit identification number (unique) to the basic attributes. This gives rise to collecting information produced by the different system. For example, using a number for a city at all systems will cause the information in different fields of educational, health, manufacturing, and consumer finance for the city to be collected and exchanged easily.
5. **Information and communication technology in sports:** Currently, sport enjoys economic, social and political importance in such a way that Mass media, political and sports authorities always discuss the good or bad results gained in different sport fields. For example, soccer has a special place in the world today and the results of its competitions have effect on a wide range of people. In addition, private soccer clubs and national teams practice every tool possible, 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 apply IT to increase capacity and improve results even in the next five years, we will hear in the second decade of this century some widespread expressions like E-soccer and E-sport.

METHODOLOGY:

The Study is a descriptive survey type. The statistical population of this study was 250 students of whom 125 selected based on Krejcie and Morgan tables. The research tool: the researcher made a questionnaire whose reliability attained through Cronbach alpha Data were analyzed through descriptive and inferential statistics using SPSS software.

RESULTS AND DISCUSSIONS:

76% of students would work with personal computer at home or at work on the daily basis and 24% of students would use virtual libraries and databases on a weekly basis such as: Science Direct PROQUEST.

90% of respondents would completely agree that "Due to the process of rapid development of new information technologies, it is necessary for students to use it".

92% of respondents were opposed to the option that "learning to use computers and the Internet and digital devices are difficult for the students".

-The respondents felt Amount of training required for e-commerce learning was very much obvious.

-42% of respondents referred to lack of easy access to some sites and scientific databases as a factor hindering IT use.

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Vol. 2. Supplementary issue 3.2015 (October)



CONCLUSION:

Based on the findings, 76% of students were using from a personal computer at home or dorm on a daily basis. Of course, using a personal computer can be used as the main criterion to as for information technology usage. Also, the percentage of users refers to a high index of information technology application among students graduate degree Physical Education and Sport Sciences. This result is consistent with that of Dovrap (2004) who performed a study on medical students in Denmark and declared that the majority of students had access to PCs and also results of Zayd and Lamys Rajab (2005) confirmed the fact that 64% of Jordanian students used personal computers.

42% of students used the Internet search engine in connection with educational activities and research. Also based on the results, the use of virtual university courses, participation in electronic courses, distance learning, chat related educational and research activities and the use of multimedia software ranked the lowest uses of information technology by students of Graduate Course of Physical Education and Sport Science.

The reasons for this problem may include lack of sufficient knowledge for using these facilities, lack of knowledge about their advantages and cultural and scientific problems for using these tools among students graduate of Physical Education and Sport Science.

Considering the results of this study with regard will use of information technology, because virtual courses and university courses and electronic distance education had a minimum room among students and the importance of E-learning , on the other hand,we propose that the respective authorities hold seminars and e-learning workshops to increase awareness of students regarding educational advantages of this system and motivate them to use it effectively and efficiently.

These technologies have unique features distinguishing them from the old communications equipment. Certainly, information and communication technology has affected every aspect of human life more than before, but this technology is very evident in the field of sports. Nevertheless, authorities should heed to their positive and negative aspects and have a deeper and more accurate look at it because on one hand,they are responsible for the communityhealth, and on the other hand, there are athletes who may use new technologies for achieving medals at any cost.

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Vol. 2. Supplementary issue 3.2015 (October)



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