

## **Analysis of role of technology in economic competitiveness of sport in west provinces of Iran**

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### **ABSTRACT**

*The purpose of this research is analysis of role of technology and innovation in economic competitiveness of sport in West provinces of Country. The necessary data for this research is collected by using of Cohen sample content chart and random sampling method from 373 sport staff from provinces of Ilam, Kurdistan, Kermanshah, Hamadan and Lorestan. The tool of measuring is a part of economic competitiveness questionnaire's Klaus Schwab (World Economic Forum). The questionnaire reliability and the coefficient validity were confirmed by nominally form and with(  $\alpha = 0.87$ ), respectively. Analysis of Data was done by using of Kruskal - Wallis and following Mann-Whitney U test. Based on findings of research, provinces of Kermanshah stand's in the best situation and there in after provinces of Hamadan, Ilam, Lorestan and Kurdistan stand ordinal.*

**Keywords:** Technology and innovation, economic competitiveness, physical education and sports, West provinces of Country(IRAN)

### **INTRODUCTION**

21s century is a century in which technological and scientific wonderful evolutions with globalization phenomenon caused countries and economic organizations for staying in global market closely compete with each other.

Indeed , in a world that economic is affected by technological and political issues , the challenge that is in front of managers and politicians in developing countries (include Iran) in consider to resources limitations , environment dynamism , global intense competitions , and technological backwardness , is more intelligent and informed encounter with getting technological capabilities issue. On the other hand , social outcomes study of national politicians decisions in suitable developing technology is , also one of the other issues that reveal the necessity and importance of technological management application in this level.

Today's, information and communication technology as one of the modern bases is affecting on men life quickly. This effect is perceiving at all social forms, includes strong effect of information technology on organizations [17]. Always , organizations face with environment dynamisms unforeseeable problems. Information technology is the most effective environment factors that is developing very fast. Each organization that want to be successful in today competitive world need to have the up to date technologies [9].

Considering that the only stable factor in today world , is evolution and change and information technology as a product of these changes with characteristics such as production, process, distribution and applying information, has confirmed its existence in all arenas. In order to increasing effectiveness and getting competitive advantage, organizations are forced to use this technology and in order to fixing organization existence and increasing efficiency, organization managers must think about providing information technology application base and technique of proper using from it in organization [6].

There are different definitions about information technology and scientists don't have unanimity about an unit definition, because of expanding and increasing growth of information technologies, From day to day.

Information technology is including technologies based on computer, mathematic, statistic, electronic, Telecommunication and medical sciences to production, assembling, preservation retrieval, transmission, distribution, conservation unity, purge, processing, explanation and displaying hidden data, information or knowledge on them in digital form or another forms in a safe base inattention to managerial aspects [5].

In another hand , some of researchers defined technological management functions and know the technological management as a process that includes all identity , choice , acquisition , profitability , and conservation activities from an institute technologies [7], and some of them defined technological management levels at global , strategic and operational level [13].

Regardless that technology is used in what level or must be used , both competitiveness and fast technological evaluations categories, play on important role in its management forming and evolution , technological size and speed changes in recent years were so vast and extensive that chasing it by persons and organizations has become very difficult. Specially , in regions such as information technology , recent years evolutions aren't comparative with all progress that achieved in past thousand years.

Competitiveness, is a process that each institution is trying to operation better than the other by it and surpasses from it. Indeed, you can remind it as an effort that an economic institution , industry or a country do it for excelling at another economic institution, industry or a country. At international level, countries, because of necessary financial , technical and specialty must compete with each other for achieving to worth and profiting their society singularity from walfare. So, achieving competitive ability in today world is transformed to one of the main challenges of different countries at international level.

With technology assistance, you can provide necessary substructures in investment. Also , technology is the reason of increasing produce efficiency rate and following it, increasing effectiveness.

In Global competitiveness report at 2011-2012 , competitiveness index of 142 countries in the world were evaluated that in between Iran is at 62nd rank and between region countries is at 10th rank that is indicated intense weak of country at technology. Generally, information technology affect on sport in 3 layer : First layer at equipments, second at improving movements and environment healthiness and third at sport affairs management [15].

Olympic is one of the most principal of sport events that get together many people , but many can't attend in this assembly because of reasons such as geographical distance , cost or unsuitable time . Right , in here , in formation technology and telecommunication can play a simplifier role.

Information management in another parts , also , control this event and another sport events management , namely , effect on the last layer that is management layer , in sport it called sport modern management and serves in formation technology (IT) to manage on sport affairs better , cheaper , more exact and fast . Another problem that can see in developing countries is managers perceptual power from technologies as in formation technology .

With a look on lessons heading , references and out put of our country university sport management lessons , easily can smell these sciences being old and exhaustion sciences and principles are teaching in these centers that is unlikely remained a memory of them in technology world . unfamiliarity of these universities professors with real aspects and IT capabilities reasoned to remove this issue from books and text resources and university students don't have any Special orientation to this title .

In one hand , not only is a consumer goods , but also is an important factor at economic producing , growth and improvement and better income distribution . undoubtedly , sport consumer costs , finally will result . in direct or indirect return of capital . fallowing investing at sport , employment rate will increase , and along with will increase in come attraction possibility by advertisement , match making , tourists attraction , raising body and psyche health and sanitation of work force and etc.

Molze and Mistiliss ( 2005 ) recommend tourist attraction , players and coaches trans mission, ticket selling , sport fields advertisement , sport facility and installation producing , bet and financial sponsor attraction , are also another income resources of sport industry .

Researches show that , main barrier at investment procedure in sport part of countries that have problem at invest attraction, is lack vision of returnable profits result from this investment directly [10].

In a way , developed countries positive attitude to this , in future , sport will provide causes of health and happiness of society and in conclusion , efficacy , causes the in vestment ration increasing at sport . only in the U.S.A , people yearly spend 213 to 350 billion dollars , for buying sport goods and services [14] . But , sport importance as an effective industry at stable development is the thing that less developed countries are unable at inspiring it to their society . the result of this weak , is exiting from competition market and thereupon sport in activity at these countries . In consider to in formation lack and economic competitive ness weak at our country sport , this research study technology role at sport economic competitiveness in west provinces .

## MATERIALS AND METHODS

Research method is descriptive and causal- comparative and the purpose is applicable. Research statistic society is formed from all sport personnel.

In western provinces (Kermanshah, Kurdistan, Hamadan, Lorestan and Ilam) who have at least B.A degree and are working in one of the scientific or executive organizations in these provinces.(N= 1380) .By using Cohen, Kerjesi-Morgan sample size Table , 373 persons was identified as sample and their data was assembled by categorization random sampling method (Kermanshah 94, Kurdistan 81, Ilam, Lorestan and Hamadan each 66 persons). In consider to subgroup sizes (their working provinces) the measurement tool is a part of economy global association questionnaire that of economy global association questionnaire that is made by close show up and contains 32 close questions with Likert 5 optional spectrum and is matched with research subject. validity of questionnaire nominally and perpetuation was confirmed by Cronbach's alpha test, % 87 . It was characterized by Kolmogorov Smirnov(KS) test that data distribution is not natural. So , For comparing competitiveness indexes , Kruskal-Wallis and Mann-Whitney U test was used.

## RESULTS

Data obtained From questionnaire in Separate index is provided as follow :

**Table 1 : Findings the role of technology in economic competitiveness of sport of west provinces (Iran)**

The following indicators	Kermanshah	Kurdistan	Lorestan	Ilam	Hamadan
Access to the latest technology in sports	0.84 ± 2.35	0.75 ± 1.80	0.80 ± 1.91	0.53 ± 1.85	0.80 ± 2.39
Absorb new technologies in sports	0.92 ± 2.54	0.78 ± 1.84	0.73 ± 1.73	0.83 ± 1.73	0.91 ± 2.29
Quality of scientific research institutions in the field of sports	0.87 ± 2.28	1.09 ± 2.11	0.45 ± 1.73	0.50 ± 1.46	0.89 ± 2.29
University partnerships for research and development of sports	0.87 ± 2.95	1.01 ± 2.33	0.72 ± 2.18	0.75 ± 1.49	0.93 ± 2.70
Reasonably successful entrepreneurial projects in sports	0.92 ± 2.68	0.74 ± 2.33	0.70 ± 2.00	0.90 ± 2.17	0.41 ± 2.79
The effect of using state resources to promote innovation in sports	1.05 ± 3.00	0.84 ± 2.84	1.27 ± 3.00	0.90 ± 3.80	0.98 ± 2.89
The impact of information and communication technology to increase public access to sports	0.96 ± 2.87	0.98 ± 2.70	1.22 ± 2.73	0.93 ± 3.86	0.82 ± 2.70
Utility services of electronic government in sports organizations	0.92 ± 2.52	0.77 ± 2.37	0.88 ± 2.55	0.67 ± 3.09	0.74 ± 2.09
Having a written plan for the use of ICT in Sports	0.91 ± 2.38	0.90 ± 2.23	0.84 ± 1.82	0.89 ± 1.73	0.56 ± 2.89
Increase the quality of sports services using of ICT	1.09 ± 2.08	0.93 ± 2.64	0.90 ± 2.55	0.75 ± 2.85	0.96 ± 3.00
Total Index	0.98 ± 2.67	0.94 ± 2.32	0.98 ± 2.22	1.17 ± 2.40	0.87 ± 2.60

**Table 2 : The results of Kruskal-Wallis test about technology role**

Total Average rating	Provinces
2060.9	Hamadan
2080.2	Kermanshah
1788.0	Ilam
1603.4	Lorestan
1733.8	Kurdistan
124.16	Kruskal-Wallis chi-square
0.0001	Significant

In above tables , is observed Innovation and technology role in sport economic competitiveness in western provinces in Iran is in a rather low level and has a meaningful difference and Accordingly, it seems, is the best situation in Kermanshah and Followed by Hamadan, Ilam, Kurdistan, and Lorestan are. Also , the results of Mann-Whitney U test showed that, in this index , there's a meaningful difference between Kermanshah and Hamadan to Ilam , Kurdistan and Lorestan.

### DISCUSSION

Research Findings showed that , western provinces of country doesn't have enough power in economic competitiveness and its three under study indices that is , technology and innovation role . In between , Ilam , Kurdistan and Lorestan in a meaningful form have more unsuitable position than Kermanshah and Hamadan . Based on this , technology and innovation role in Iran sport economic competitiveness , isn't very desirable . This role importance is more sensible when we know that technology role in developed countries economic competitiveness is direct and sensible. Gorden, Nordhaus and van Arc (2000) each in a separate researches, emphasis on technology role as a producing grow and efficacy source [11, 4, 16]. Also, Jorgenson, Ho and Stiroh (2006) showed that FAVA explains 37% of 3.90 U.S.A economic grow percentage during 1995-2003 Global bank (1998) studied FAVA role in economic grow at 74 countries during 1965-75, 1975-87, 1985-95 periods. Results show that there's a positive and meaningful correlation between internal impure production grow, Education, Trade opening and Communicative understructures [8]. Piatkowski and Arc (2005) evaluated FAVA role in total efficacy and economic grow in Eastern and central Europe in compare to 15 countries in Europe and America. Results show that technology strongly has increased work efficacy in developing countries of eastern and central Europe and has had the most effect on countries convergence in 1990s. so, pale role of technology and innovation in western provinces sport can be one of the slump factors of sport economic competitiveness of these provinces. As men society developing amazing rate, introduce new knowledge and Training these knowledge is the most important element of technology and one of the people inevitable choosing [12].

Hassan Danaee fard (2009) thinks that one of the ways of decreasing state management immorality opportunities is relying on technology that has expressed itself at electronic state. Technology causes processes transparency and administrative decision making, an action that the other instruments can't do it [1]. Also, in attention to technology and innovation importance at sport industry economic development [2] , training and human forces weakness in these provinces may be one of their another sport economic competitiveness slump factors. Farahani (2001) in considering training media's role in physical education learning quality, technology role in physical education training, physical education theoretical lessons training in humanism branch in applying without any qualification downfall. So, undoubtedly, western provinces sport weakness in application and developing technology and innovation is a factor of these provinces sport economic competitiveness slump [3].

### CONCLUSION

Nowadays, information technology isn't expressed as a competitiveness advantage and express as an obligation for durability and survival. Competitiveness is a fundamental force in economy and excellent feature of an organization is developing and survival ability protection in high turbulent.

Today world . the important point is that, though a competitiveness scientific discipline and having a distinct plan for sport discovering, attracting and growing economic is necessary, yet , there isn't a current and global inclusion method of sport economic competitiveness that be agreeable in world.

Superior manager in different levels for achieving success, informed encounter with business world evolutions, avoiding of test and error procedure and finally decreasing their decision- making risk, should increase familiarity with technology management principles portly and gradually perform it's principles practically. So, in attention to mentioned conditions, perhaps , need to design and perform a regular plan for developing technology and innovation and following it, reaching to sport economic development in western provinces of Iran . In between. Special attention to new technology availability and attraction, increasing quality of scientific researches centers and cooperation range with universities for sport researching and developing , logical encounter with unsuccessful projects of work making in sport, effect of using state facilities for increasing innovation in sport, electronic government services desirability in sport organizations, effect of information and communication technology in increasing general availability to sport services, having prepared executive plan for using information an communication technology in sport, increasing sport service- giving by using information and communication technology and etc, can be trouble shooting.

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