



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (ISRA): 5.38  
IJPESH 2016; 3(5): 84-88  
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www.kheljournal.com  
Received: 18-07-2016  
Accepted: 19-08-2016

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## Investigation and Identification interaction of Islamic Azad Universities (IAU) with Iran production sector of the sport industry

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### Abstract

The sport industry is a part of society and it is being more important gradually. It is as a one of important economical concepts in the society. The relation of sport product industry with universities is the main way to develop the economic aspects of sport industry. The goal of this research was to evaluate the participation and interaction of Islamic Azad University with Iran production sector of the sport industry in geographical area of Iran. This research is practical and form the descriptive – analyzing method in order to data collection we used Esham (2008) industry questionnaire that its final coefficient was on the basis of cronbach Alpha ( $\alpha=0.86$ ) method, and it is justified by 5 experts in the field of relation of industry and university and 5 sophisticated professors of sports management. the statistical universe of this research consists the all Islamic Azad University Iran of sports product in Iran (N=302) that according to Morgan's table the 169 universe were the random patterns of this research to analyze the data we used descriptive method (distribution, average, standard deviation, depicting of diagram) and deductive method (Freidman test). The result of this analysis showed: the more important relationship between Islamic Azad Universities included Contract research and consulting. Factors academic problems, Cooperation and finally of research were the main obstacles of relationship between these two subjects. According to Academics, the main policy to improve the relationship Islamic Azad Universities with industry in part of sports productive industry is the government tax reduction for companies which cooperate with universities visiting of industry. In \*, the relationship between Islamic Azad Universities with industry in part of sports productive industry is not appropriate and there are many obstacles between the relationship of these to subjects.

**Keywords:** University-Industry relationship, Islamic Azad University, sports industry, Iran

### Introduction

The subject of the relationship between university and industry is not a new subject, but in the early 1970, this subject, the relationship between university and industry, was met and now is the current subject in all countries (Vincent, 1996)<sup>[18]</sup>. The relationship between university and investigation centers and industrial and practical units, is a concept which is considered by programmer, policy makers, and performance of industrial and investigating parts in country and deal with it in different aspects. When universities deal more with scientific and theoretic activities, and industry deals with scientific and productive activities (Meredith and Burkle, 2008)<sup>[10]</sup> the relationship of university and industry can improve the researches, invention, technologies by providing of fiancé by industry and providing of faculty and predicting science by university and the government by making motivational structures can help to relate (Cao *et al.*, 2009)<sup>[4]</sup>. The cooperation of university and industry is the examples of conventional agreements which is possible in relation with scientific and investigating activities and commercial companies the cooperation happened by purpose of reaching to scientific capability of university and industry experiences and the use of them (Anderson, 2000)<sup>[11]</sup>. The produced knowledge in universities can be a competitive advantage for sport industry (Vedovello, 1998)<sup>[17]</sup>. In the beginning of 21 century, the science is a guideline resource and even is better than the natural and economical sources, and resolving of the society requirements, especially in the field of technology, is very important (Hearn and Rodonez, 2004)<sup>[7]</sup>.

The country which forms and organizes the substructure and relating network between institutes, universities and government, can be successful in science and technology by developing of information, knowledge, and products. In other words to day the efficiency of innovative system of countries, depends on the intensity and effectualness of cooperation between the big parts in production and development of knowledge and use of it increasingly (Sayadi *et al.*, 2012) [16]. In this way, there is emphasis on the main role of cooperation of university and industry and other effective factors in developing technologies and new industries, in training and employing personnel whit high quality, reaching and saving technological abilities and providing innovation. three main factors (universities, investigation organization, production part and government) are very important in connective mechanism for development of technology, innovation process and commercializing of research and development, the general management of relational system of university, industry and government, require intelligent structure, appropriate environment of innovation, efficiency organizational equipment's, and different connective mechanisms and connective organization. looking at the evolution which is experienced in university, industry and government, the different structures, arrangements and networks are made which provide necessary inputs for scientific technology processes. As international completions is increasing and technology? The government try to cooperate with university and industry and cooperation of inter organization in order to increase innovation, efficiency and \*\*\* providing of wealth. Such cooperation's and interactions between organizations can have many advantages such as technological progress, costs reduction, more and deeper knowledge and so on (Barnes *et al.*, 2002) [2]. Brown in his research in England showed that the economic developments of the country depend on the scientific and educational investigations (Brown, 2006) [3]. It would be important that the earns of universities are not practical, because the cooperation of universities and organizations (government and industry) depends on specific managing efforts which unfortunately in real world pay few attention to it (Dodgson, 1991) [6]. In too tall there is a belief which if the cooperation activities between universities and organization being correctly managed the results will be maxiom. Although our knowledge of different forms of cooperation between organizations is relatively narrow, the foundation of networks is a cause to more attention and their management in the real world (O'Toole, 1997) [12]. There are several decades in which discuss about the relation of industry and university in our country, but this is obvious that we could not have made an effective and dynamic relationship between industry and university so far. According to the studies, which have already been done, since there is no comprehensive system in the government in our country and with the presence of so many shortcomings in making relationship between university and industry, the first programming and reconstruction are necessary however, the relationship of productive industry of sports products and universities can be a new issue which pays less attention on it, and according to it, that the progress of each society depends on the progress of its universities and its productive industries, and also according to the importance of sports which being universal, and the economics of many countries depends on it, however, the researcher mode it necessary to investigate whit the purpose of evaluation of participation and interaction of IAU with Iran production sector of the sport industry (different interactions IAU with production sector of the sport industry, the

connection barrier of two subjects and improvement and developing policies of relationship) to develop the country sports industry.

The conceptual model of this research is showed in figure 1, that Relationship IAU with Iran production sector of the sport industry from three views: (different interactions IAU with production sector of the sport industry, the connection barrier of two subjects and improvement and developing policies of relationship).



**Fig 1:** Conceptual Model of Research

### The research hypothesis

- 1- According to the Academics view, there is not meaningful difference between the rank averages of different barriers of IAU relationship with industry in productive part of sport industry of Iran.
- 2- According to the Academics view, there is not meaningful difference between the rank averages of different improvement solutions of IAU relationship with industry in productive part of sport industry of Iran.

### Methodology

According to the nature of this research which Evaluation of participation and interaction of IAU with Iran production sector of the sport industry this research is a kind of practical and has been done by the descriptive- analytic method. The statistical universe of this research includes the whole Islamic Azad University in allover Iran ( $N=302$ ). Collected information about the university through the official website of the Ministry of Science, Research and Technology in 2014. The statistical example was used from Esham (2008) [8] industry questionnaire that its final coefficient calculated through cronbach alpha method ( $\alpha=0.86$ ) and for justifiability determination it was viewed by two different groups of sport management professor (5 persons) and active professor in the field of industry relationship and university (5 persons) and it was modified, and finally by using of the numerical sigma, its justifiability was 0.85. The questionnaire was sent to the much number of universities, if a questionnaire was corrupt or unusable it would not be a problem, that finally 169 IAU returned the questionnaire which their information were predicate table, and these numbers, foamed sample of our research. To analyze the data we used descriptive and inductive statistical techniques, and SPSS 18 software in meaningful level of  $p<0.05$ . In order to organize, summarize, and classify the raw score and to describe the size of the sample, the arrangement of distribution table, percent's and calculating distributing indexes such as average, standard deviation and diagrams used descriptive statistics and in the section of inductive statistics we used Kolmogorov-Smirnov Test to analyze the data were they are natural or not, and also according to the research goals and to test the research hypothesis and to classify the investigating factors we used Friedman test.

## Findings

Table 1 shows the descriptive statistics related to the demographic characteristics of the Academics. According to

the table, the majority of the Academics held PhD degrees in the fields, excluding the field of Physical Education.

**Table 1:** Descriptive statistics of the related to demographic characteristics of the Academics

	corporate directors' demographic characteristics				
	Field of study		Education		
	Physical Education	Non-physical Education	BS/BA	MA/MS	PhD
f	0	169	36	48	85

Table 2 shows its fields of Islamic Azad universities with the productive sector of the sports industry.

The results show that the majority of universities in both areas (contract research and consultancy) with the manufacturing

sector had been in contact sports and as you can see in the table in other areas, universities have little to do with the sports industry.

**Table 2:** Descriptive statistics university with a variety of interactive production industry Sports

	Row	Factors	Relation
			Yes No
1	Consulting	95	74
3	Contract research	118	51
2	learning programs	52	117
5	workshops	55	114
6	Seminars and Conferences	41	128
4	The use of laboratory facilities	14	155
7	University patents	24	145
8	The prototype developed by you	23	146

In this section we deal with the evaluation of research hypothesis:

**First hypothesis:** According to the Academics view, there is not meaningful difference between the rank averages of different barriers of IAU relationship with industry in productive part of sport industry of Iran.

According to the result which obtained from fried man test which showed in table 3.the test is meaningful. So this hypothesis rejected, and it would be a meaningful difference in

the level of  $p<0.05$  between rank average of different barriers of IAU relationship and industry in productive part of Iran sport industry. According to the classification of Friedman test, the most important barriers IAU with industry arrange from one to three include, Factors academic problems (Lack of sufficient awareness of lack of entrepreneurship in their essence and time limits), Cooperation (lack of industry interest to cooperate and constraints in selecting research topics), and Finally, factor Research (incompetence and inefficiency academics to do research for academic research to industry).

**Table 3:** data of Friedman test results of First research hypothesis

Ranking	Factor Name	Rank average	N	df	X <sup>2</sup>	sig
3	Research	3.65	169	5	528.068	0.001
2	Cooperation	4.10				
1	Academics	5.14				
4	Structure and position	3.21				
6	Lack of interest	1.54				
5	Laws and policies	3.01				

**Second hypothesis:** 2- According to the Academics view, there is not meaningful difference between the rank averages of different improvement solutions of IAU relationship with industry in productive part of sport industry of Iran.

According to the results which obtained from Friedman test that showed in table 4, this test is meaningful, so this hypothesis rejected, and it would be a meaningful difference in the level of  $p<0.05$  between rank average of different solutions

of the important of IAU relation and industry in productive part of Iran sport industry. According to the classification of Friedman test, the most important solutions to improve the university relations with industry order from one to three which include the consideration of tax reduction for companies which are related to the universities, Forced the university and industry Cooperation and finally granting greater autonomy to universities working with industry.

**Table 4:** the results of Friedman test of second hypothesis

Ranking	Factor Name	Rank average	N	df	X <sup>2</sup>	sig
5	Recommended solutions	8.30	16	11	95.296	100.0
6	Student's training in industry	8.22				
4	Visiting of students of industry	9.01				
7	University visiting of industry	6.98				
8	Improvement of university equipment's	6.78				
9	Cooperation of personnel of industry in university program	6.59				
11	Developing of mutual relationship mechanism	3.06				
10	Extending of university activities of industry	4.54				
1	Co-organization of formal meetings-discussion...	10.56				
2	Tax reduction of companies to connect with university	10.08				
12	Contribution of university in industrial committee	2.80				
3	Contribution of industry part in university committee	9.35				

## Discussion

The America sport industry become to 410-billion\$ industry, in which during the 5 years ago it became from 213 billion to 410 billion \$ (Stotlar, 2009) [9]. However this industry grew to 152 billion \$ from 1990 to 2000 (Mullin *et al.*, 2000) [11]. So we can see the fast growth of the industry in the world, and according to it we can make a plan to develop the sport of the country. The dependency of sport industry on the government provides conditions which require the cooperation of researchers and experts and skillful managers in this industry to study and analyze the complexity of sport market, in which the large amount of financial circulation and workers involved in it, may be controlled by scientific and correct management. So, we can say that success of sport industry is due to the cooperation and relationship of university researchers and skillful managers of industry. Making an effective connection between industry and university, improve the interactions and mutual activities between these two subjects and increase the awareness of university from industry requirements and vice versa. From this way, the quality and appropriateness of academic training in university with industry requirements and according to it the scientific and practical capabilities of students increase and improve the innovative and developing contexts in the organizations and society. So, if this relation will be in the basis of wrongful relations, and the identified barriers and problems in effective relations between these two subjects don't increase, the society would not have gained its desires of development. In totally, one of the results of the research evaluates that the amount of interactions of Islamic Azad University and industry is not normal. The results of Este & Patel 2005 research were in similar of this research. They found that the most important interactions between university and industry are: providing the laboratory equipment's, consulting and investigating and training conventions. Perkmann & walsh 2007 also found that relations such as : common research, the university- industry investigating center, research convention and scientific consulting are the most important relations between university & industry that the results of this research are similar to this research. Esham 2008 has evaluated the different interactions of industry and university such as student training, personal relationship with universities, presence in seminars and workshops. Ramos & Fernandez 2009 also in their research considered the most important interactions of university and industry s: personal relationship, consulting and training of students that these results were opposite of to the results. The other results of Friedman test showed that the most important barriers IAU with industry arrange from one to three include, Factors academic problems (Lack of sufficient awareness of, lack of entrepreneurship in their essence and time limits),

Cooperation (lack of industry interest to cooperate and constraints in selecting research topics), and Finally, factor Research (incompetence and inefficiency academics to do research for academic research to industry). The results of this part of research were opposite of to the results of Esham 2008 research. According to it the lack of recognizing appropriate methods and also the lack of appropriate mechanisms and structures for cooperating are evaluated as the main barriers of interactions of university and industry according to the universities and industries.

According to the Friedman test classification, the main solutions of improving of industry relation and university include the considering of tax reduction for companies which are related to universities, Forced the university and industry Cooperation and finally granting greater autonomy to universities working with industry. Vincent 1996 in a research evaluated a common solution to improve the connection of university and industry which is opposite of this research in establishment of intermediate supportive organization between university and industry. Also, Esham 2008 reached to results opposite these results and according to it the main solutions to improve the interactions between university and industry were: the encourage of universities to visit industry, the contribution of industry personals in university curriculum and establishing Mechanisms of university relation with industry. In total, the most researches have already been done in the field of university relation with in industry out of sport industry, while the society was the present research of productive industry of sport products. So, the main causes of the all opposition of researches to the present research are due to this issue.

The practical suggestions about research findings

In this section the researcher according to the research findings, suggests some suggestions to improve and develop the IAU relation of productive industry of sport products, that the most of these suggestions expressed by the Academics of the productive companies of sport products which expressed orderly.

- The consideration of tax reduction for companies which cooperate to universities
- Forced the university and industry Cooperation
- Granting greater autonomy to universities working with industry
- Accompanies Education of students with internships in industry
- To encourage the students to visit the industry
- The improvement of laboratory equipment's and other substructure universities.
- The contribution of industry personnel in university curriculum.
- The establishment of mechanisms to relate university with

## industry

- To provide industrial and technological parks in the vicinity of universities
- Co-organization of (University-Industry) formal meetings, negotiations, and relations

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