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A perspective of the cooperation between university and industry at Islamic Azad University, Sanandaj Branch, and its comparison with Kingston University London

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Abstract

The cooperation of university with industry and society consolidates individual and social effects of university and makes it practical; it also transfers the knowledge to industry section. In this study, the perspective of the cooperation between Islamic Azad University, Sanandaj Branch with industry section and society was reviewed as a case-study in two parts of research and education on the basis of DIUA Research model in 2010-2011.Also this perspective was compared to that of Kingston University London. The results of this study show that the ratio of outside educational activities to inside-campus activities is 1/100 and the ratio of outside research activities to inside is 2.5/100. This shows a significant difference with that ratio of Kingston University London. Therefore, developing educational courses outside university and learning in the workplace in the curricula of Iran's higher education system and connecting industry section to university, employer engagement and its strategy while being sponsored by government are all suggested.

Keywords: University-industry cooperation, research activities, educational courses, Sanandaj, Kingston;

1. Introduction

Cooperation between university and industry causes integration of technology and education in every country. This leads to optimization of "education and production" methods and also generates progress instruments and stable developments in different countries. This cooperation is efficient if universities commercialize their research findings besides conducting applied research.

Development of technology and innovation is created as a result of complicated collection of activities and collaboration and relations among private and state institutions, universities and educational and research centers. Freeman, Lundvall and Rosenberg consider creation, improvement, diffusion and utilization of new knowledge and technology in the shadow of cooperation and correlation among a group of governmental institutions (Freeman, 1987; Lundvall, 1992). In 1980, the Organization for Economic and Cooperation Development undertook this responsibility. This organization changed the basis of economy from industry to knowledge. In order to achieve its

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goals, this organization needs extensive cooperation of political, managerial and social organizations (Edquest, 1997).

Various countries have designed and implemented the relations between industry and university on the basis of their organizational structure of their university and industry. After globalization of economy and cultural developments worldwide, and with the change of consumption patterns of societies and shift of different strata expectations, the role of universities in response to growing need of different societies such as Iran has become important more than ever. Therefore, a kind of multifunctional agreement should be made between university and society; otherwise, community development fades away.

In recent years, cooperation between industry and university has brought about important achievements for Iran. But evidences indicate that such cooperation hasn't reached even an average level in terms of research implementations and developing (Lundvall, 1997; Taghavi and Pakzad, 2007; Geoghegan and Pontikakis, 2008; Boschi, 2005), research fund and developing human resources (Lundvall, 2001; Este and Patel, 2007; Boschi, 2005; Lundvall 2007; Pronariov, 2006; Tabatabaian and Pakzad Bonab, 2006; Robertson, 2006), transition and diffusion of technology (Lundvall, 2001; Prigge, 2006; Boschi, 2005; Xue, 2007; Este and Patel, 2007; Geoghegan and Pontikakis, 2008; Hong, 2008), entrepreneurship promotion (Taghavi and Pakzad, 2007; Xue, 2007; Este and Patel 2007), and production of goods and services (Tabatabaian and Pakzad Bonab, 2006; Este and Patel, 2007; Bagheri Nejad, 2008; Esmaieili, Sorkhabi, Haji Hosseini & Kiamanesh, 2011).

The problems preventing the establishment of relationship between university and industry haven't been solved yet and more studies need to be carried out (Shafiee, 2003). Consequently, in this article, parts of activities related to research and development indexes, necessary financial resources, human resources development and diffusion and transition of technology at Islamic Azad university of Sanandaj and Kingston University have been compared and investigated.

2. Methodology

As a case study, this research has adopted the DIUA research model data collection; analyses were done quantitatively. Documentary data, the available documents in research vice-chancellorship office and university-industry office of the studied universities were used.

The population includes the number of education hours inside and outside the universities and also the number of studies conducted inside and outside the university in Islamic Azad university of Sanandaj and Kingston University of London in all academic majors in 2011.

2.1. Variables

1-The number of hours of educational courses, in the two levels – inside and outside of university in the two under study universities, and

2-The number of research activities in the two levels – inside and outside university in the two under study universities.

3. Findings

In order to investigate the number of training hours and research activities inside and outside Islamic Azad university of Sanandaj and to make a comparison with Kingston University, the researchers have used descriptive statistics such as: percentage and pie graph. According to the documents available at Islamic Azad University, Sanandaj branch, 204450 training hours (202250 hours inside and 2200 hours outside the university) were carried

out. Also based on documents 123000 hours of research activities are carried out in Islamic Azad university of Sanandaj, 120000 hours inside and 3000 hours outside the university. The percentage of training and research activity of Islamic Azad University compared to those of Kingston University are shown in table 1 and figures 1 and 2.

Table 1. The percentage of research activities in Islamic Azad University of Sanandaj and Kingston University

| Activity	Activity place	Sanandaj	Kingston
Training	Inside university	98.92%	67.57%
	Outside university	1.08%	32.43%
	Total	100%	100%
Research	Inside university	97.56%	50%
	Outside university	2.44%	50%
	Total	100%	100%

Green: Inside
Blue: Outside
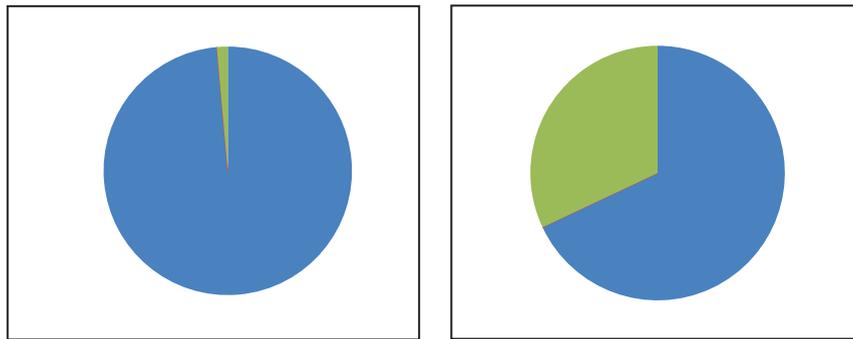
Islamic Azad University of Sanandaj   Kingston University

Figure1. Pie graph of training percentage inside and outside the university

Green: Inside
Blue: Outside
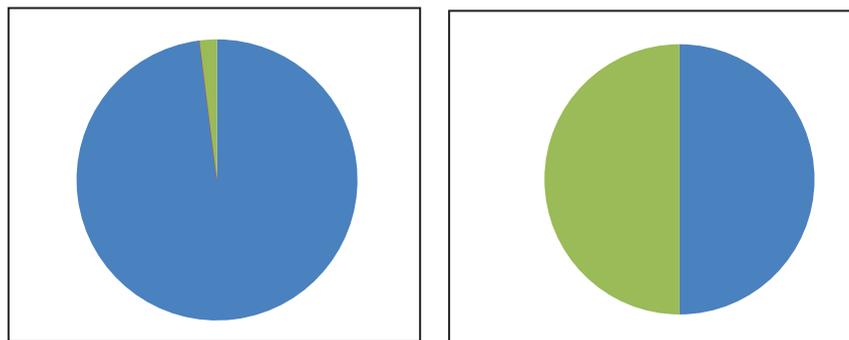
Islamic Azad University of Sanandaj   Kingston University

Figure2. Pie graph of research percentage inside and outside the university

As the results of table 1 and figure 1 indicate, in Islamic Azad University of Sanandaj the proportion of training (educational) activities inside the university to outside the university is significantly higher (98-92% + 1.078), while in Kingston University the proportion of educational activities inside the university to outside is 2 to 1. Also based on the results of table 1 and graph 2 in Islamic Azad University of Sanandaj, the proportion of research done inside the university to outside is obviously higher (97.56% against 2.44%), whereas in Kingston University the proportion of research inside the university to outside the university is almost equal.

4. Discussion

The educational role of university in development process on the basis of human training is considered as a facilitator of industrial development , and its research role in pure and applied research , which is the prerequisite condition to the success of industrial development becomes more tangible.

4.1. Some suggestions for universities

1- Designing new and efficient educational programs in a way that they secure current and future needs of society and industry with regard to increasing needs , the life level change and the process of increasing expectations.

2- Planning to promote and improve qualitative and quantitative conditions of training courses outside the university for students with regular supervision of faculty members and creating appropriate, reasonable relationships among university, industrial and community institutions.

3- Setting wage and creating job for trainee students.

4- Making student projects more practical and functional.

5- Awarding valid university certificates to students in return for research conducted in a specified time in state and industrial institutions outside the university.

6- Encouraging state and industrial institutions to give over their research plans as MA thesis or PhD dissertations projects to students.

7- Conducting educational-needs analysis and choosing research priorities with the focus on cooperation of industrial units and university faculty members.

8- Increasing the number of qualitative and quantitative research contracts between university and industry.

9- Creating incentives such as encouragement, promotion or elevation for applied and industrial research activities by faculty members outside the university.

10- Facilitating the process of attaining financial resources outside the university.

4.2. Some suggestions for government

1- Creating appropriate rules to provide full protection of studies conducted between university and industry and its strategies.

2- Long – term planning to reinforce cooperation among government, university and industry.

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