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# Technical University- Investigating the Relationship between Technical and Industrial University

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*Abstract: In this paper, barriers to the relationship between industry and the technical and vocational college in Iran have been reviewed and executive strategies have been proposed to remove these obstacles.*

*In this paper, while reviewing the research background, the research topic and method have been explained. For the implementation of the research, a field research method has been supported by extensive library research. The statistical sample includes experts in the industrial sector and the technical and professional university, and uses techniques Qualitative and quantitative information analysis has been used.*

*Based on the results obtained from the implementation of this research, the lack of coordination of academic research centers with industrial centers and the link between strategic policies of the academic sector strategic sectors, the lack of attention of industrial centers to the exploitation of academic research results, management instability in industrial centers, the inappropriateness of large-scale research policies Country, inadequate understanding of academic research centers about the problems of industrial centers, the difference in the organizational culture of university research centers with industries, and finally, the lack of confidence of industrial centers in the applicability of academic research is one of the most important obstacles to the development of industry-to-industry interactions.*

**Keywords:** *Industry, University, Industry and University Relations, Barriers to Industry and University Relations*

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## **Introduction:**

The development and development of any country depends on the proper interaction between the two major sectors of the industry and the professional technical university. In fact, one of the most valuable resources that society has for development and development is the professional technical university. Technology advancement is on a kind of background In the society, the professional technical university has a unique role to play as a real ground for human resource training. (Jafar Nejad *et al.*, 2005). In developing countries, different strategies are proposed for achieving national development. It is clear that in all these strategies, science and technology are the main axis of development. Thus, the need for the interaction of the technical and industrial university with the rapid advances in science and technology is a clear matter. And obviously, the fact that the certificates of a specialized technical university or a highly skilled manpower in various fields as well as inventions, discoveries and scientific innovations and the extension of the field of science and knowledge is a very important part of the industry.

These two parts make effective coordination and communication in national development (the same). In the current fast-paced world, national and economic development necessitates the need for human resources, and effective human resources are not provided with appropriate education. Training is appropriate. Which gives practical knowledge to the workforce, and this is not possible without the support of science (academic assemblies) and practice (industry).

If the industry can be likened to oxygen by the human body and the technical university, it would undoubtedly be the heart of this human being for the academic and industrial colleges. (Jafarzadeh, 1392). Professional technical universities today are worthy of from pure education and research, they move towards third-generation or professional-technical universities and take on the mission of

technological innovation. Three important reasons are attention to entrepreneurship, wealth generation, technology development, and productive employment.

In professional technical universities, entrepreneurship centers, and centers of growth and growth, they will support entrepreneurs who lack the capital and facilities to set up a small business. And these will be companies that in the future will become the major industries of communication with technical universities. . The link between the technical and industrial university is one of the most important factors for development (Rahmati et al., 2013).

### **1-Statement of Problem:**

The Technical and Professional University has started its work as the only university of technical and professional technical education licensed by the Ministry of Science and Research. The main activity of the university's education is in the development of the level of the college and the goal is to cultivate a technician.

Since the establishment of the Conservatory in Iran in the year 1305, the age of technical and vocational schools has reached about 90 years, but the quality of education has not yet met the expectations of its designers, although efforts have been made in recent years to increase the quantity and quality of these trainings.

In this connection, the technical and vocational schools of the country have been established in order to improve students' knowledge and skills, and to activate their hidden talents, which prepare graduates to prepare their jobs, professions and businesses in various occupations and their ability to do something they have been assigned to raise the desired level. (Hafez Nia, 2007). Resolving the problem of employment is one of the most important issues of the advancement of our modern

society. Therefore, promoting the culture of learning skills among the people should be noticed more and more because one is emerging from the problem of unemployment, entrepreneurship and the increase in the level of skill that the technical and vocational university, in its own part, done. Such an event will not be realized unless by skilled people who can create entrepreneurship by creating transformations in organizations or creating powerful companies. Professional and technical universities can train highly skilled human resources capable of turning science and knowledge into affordable goods and services in the national economy. On the one hand, educating creative and entrepreneurial people who can create sustainable business opportunities by creating value added and wealth creation, as one of the effective strategies in the development process in the world (Salimi, Moradi, and Mohammad Soufi, 2008).

Regarding the history of industry in Iran, it should be said that, given the broad definition of this term, the history of the industry should be estimated to be about 6 thousand years ago. The excavations in Iran show that ancient Iran has an older industry than Egypt and Babylon. The spots in Persepolis, Takht-e-Jamshid and Damghan brought about the history of industrial production in Iran up to 6,000 years ago, and the pottery obtained shows that it should have lasted centuries to this degree of progress (Wilson, 8: 1317)

Iran's oldest industries include pottery and pottery, architecture, sculpture and stone works, metal working and wood and leather goods, textiles, painting, writing books, gilding, carpets, carpets and ... New developments were initially in the Qajar period The shape of the industries of matchmaking, cement, textile, and electricity was developed in the country, and then in the time of Reza Shah, various industrial factories expanded and their growth continued during the Pahlavi period and after the revolution (Ja'farzadeh, 1392). As can be seen, industry education in Iran has a long history, until gradually establishing serious schools

and universities It has also led to the creation of new industries that, by examining this history, cannot be seen from the proper relationship between the two institutes of the university and industry in Iran. In general, both of these institutions are shaped in the form of imported and non-spontaneous in our society and, to date, less effort In contrast, these two institutions suffer from a relationship of interpersonal disorder, although this has improved slightly in recent years (*ibid.*).

## **2-Research Background:**

Research and Development is, in fact, a kind of capability and capacity for what people can do with any means they can to improve their lives and their lives. Therefore, development and development means having a strong desire to improve and the ability to research this ambition. Nevertheless, in our day, every country has an endeavor to develop, because development is the goal most people consider essential.

Accordingly, the role of the technical and professional university in industrial development, the study of the history of university and industry affairs in Iran, and the status of the relationship between technical and professional universities and industry in different countries of the world, and the relationship between industry and government and the technical and vocational college are discussed (Ahmad Ja'far Race and Partners: 1394). The serious problem in the industry is that, due to the lack of highly skilled and strong specialists, the projects are generally and without a staged definition and all these steps (even some of the production) are requested from the technical and professional university. If each stage of the project should be An independent, step-by-step project is defined and implemented unless the project is allowed to perform such a step-by-step process that is known as the gradual evolution (Murdick et al, 1990).

### **3- Research Method:**

This research is an analytical and descriptive study carried out in two parts of the documentary and library. In the library section, using information documents and library, information was gathered in a survey section using a questionnaire distributed among university professors and industrial managers there have been.

#### **3-1-Statistical Society:**

In the research collected by the statistical community, experts in the departments of industry and mining are university professors and students.

#### **3-2-Statistical Sample:**

Because of the lack of access to a large number of industrial managers and time-consuming and costly, it is not possible to examine the entire director for an inevitable contract for research in the sample rather than the entire university across the country.

#### **3-3-Research Tool:**

Using different tools for collecting information in this research, we used the library information of the questionnaire and documents. In this research, we used questionnaires of the second category, i.e. the questions and sentences in the questionnaire were put forward by the researcher.

#### **3-4-The Validity of the Research:**

In this research, the most important tool is the collection and measurement of the variable of the questionnaire. The validity of the questionnaire is very important.

In this research, we have been working with a wide range of library studies to fully understand the important concepts and variables used in researching the relationship between technical and industrial university.

### **3-5-Research Reliability:**

One of the main features of the instrument (in which 100% Cronbach's alpha questionnaire was measured using SPSS software), and the ending if 92% is verified.

### **4-Findings:**

In short, the results of this research are due to the existence of numerous barriers to the relationship between industry and the technical and professional university in Iran. The most important of these barriers are:

- 1- Inconsistency between the research centers of the technical, professional and industrial universities.
- 2- Lack of Relationship between Strategic Strategies in the Industry Sector with the Strategic Researches of the Technical and Professional University Research Center.
- 3- Neglect of Industrial Centers to Utilize the Results of the Researches of the Technical and Professional University.
- 4- Inappropriate Country Research Policies in Associate resources and guidance of research centers of the technical and professional university.

### **Conclusion Overall:**

The relationship between the two institutes of the university and industry is one of the most important relationships of any society that contributes to the growth and

prosperity of these two institutions as well as to the improvement and improvement of the conditions of the entire society. The experience of different countries suggests that the creation and reproduction of such a relationship an important factor in their economic, social and cultural development.

After the revolution, and especially in recent years, steps have been taken to promote such a relationship that could be hoped to be expanded. Considering the issues raised above, the position of the foreseen development of the 20-year perspective of Iran's development in science and technology in the Middle East has been hoped. It would be feasible to consider the different dimensions of this discussion and to consider the appropriate policy measures in different sectors, taking into account the specific conditions facing the country. It goes without saying that the obstacles to linking industry universities are not quickly and easily overcome. However, it is necessary to formulate a consideration and seek an appropriate solution to address them.

## **5-Offers**

- 1- Giving rational and rational freedom to technical and professional universities and respect for their scientific independence;
- 2- Allow technical and professional universities to offer a public offering, including representatives of the industry, faculty members of the technical and professional university, representatives of families, students, the government, and especially the various guilds, especially the guilds and industry, as they can contribute financially to the university. In this way, the relationship between the industry and the technical and professional university will be rational;
- 3- The university should not be run in a party or the head of the technical and professional university represents a particular trend and intellectual orientation. If so, he will seek to politicize the university.

- 4- Approval and implementation of incentive policies for the development, strengthening and organization of the interaction of the technical university and geeks and research centers with the industrial sector and the implementation of the country;
- 5- Using the views of thinkers and elites to make specialized decisions in the field of science;
- 6- Changes in the allocation of research budget to the technical and vocational college and research centers based on the capability and quality of research activities;
- 7- Developing the infrastructure necessary for commercialization Research findings of technical and professional universities by creating and developing technology development companies of towns and parks of technology and growth centers (incubators);
- 8- Establishment of meritocracy with the approach of attracting elite people for the management of managerial occupations of organizations and scientific institutions of the country;
- 9-Approval and enforcement of intellectual property law in order to clarify the ownership of research results of the Industrial and Technical University.
- 10-Title of advisers to guilds and executive agencies;
- 11- Driving technical and professional academic research into applied, commercial and responsive aspects of the country's economic needs and, in fact, producing knowledge based on the needs of the country and in the practical context;
- 12- Identify and prioritize national needs
- 13- Convergence and approval of laws for the use of faculty members of the University for technical and professional integration of science and technology policies and development strategies and macroeconomic policies;

14- Modifying the criteria for evaluating faculty members to present papers or attend conferences to attend the industry and work on topics that are needed to advance technology in the industry.

15- The government exercised its duties in the field of reforming the structure of the country's economy and organizing the industry by reducing government volume, increasing the competitiveness of industries to motivate increasing demand for innovation and, as a result, demand for innovation and, consequently, demands for knowledge and technology

16- The industry's involvement in creating new disciplines and academic inter disciplines based on the needs of the labor and industry market;

17- Change of syllabus and syllabus courses with the view of the industry and the industrialization of universities (the orientation of each university toward a particular industry with the preservation and presentation of basic courses).

18-Formation of meetings, seminars and conferences by inviting successful managers and experts in the industry sector at universities and utilizing their practical experiences and academics' knowledge of the manufacturing sector's problems and proposing joint collaborative research to solve it through the interaction of academics and industry;

19-Increasing research and entrepreneurship competition among universities;

20- Establishing competition among industrial enterprises to motivate increasing demand for innovation and, as a result, demand for knowledge and technology.

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