

## The Juridical Investigation of Knowledge Commercialization in the Knowledge-Based Corporations

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**Abstract:** The knowledge-based corporations are new emergent organizations in the Iran juridical system. Prior to approval of the knowledge-based corporation support and protection act which was reinforced by the president dated 7 December 2010, Article (152) of the third economic, social and cultural development program of Islamic Republic of Iran was the only law which permits commercialization of the knowledge to universities. Although this law considered commercialization in universities but the meaning of companies referred to in this act has been completely different from the concept of companies derived from the university in the developed countries. As matter of fact, it can be said that university derived companies had not any position in Iran, until the approval of protection of the knowledge-based companies and institutions act, even now, infrastructure activities and preparations such as entrepreneurship studies, licensing and patent support, growth centers and innovation networks are still in their primary stages, the most important persuasive and supportive initiatives for establishing and developing universities derived companies. Considering the novelty of this institution, questions arise regarding to commercialization of knowledge and the essence of knowledge-based corporations, in which, the author tries to answer them in the current article.

**Key words:** Knowledge, commercialization, innovation, knowledge-based, intellectual property, technology transfer, commercial law

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### INTRODUCTION

Due to the central role and importance of some technologies in the development and progression of the country, as stated in the upstream documents and visions; provision of juridical and legal mechanisms that lead to knowledge development is a necessary context and substrate in which we cannot attain the predetermined objectives without them. The innovations of knowledge based corporations have a specific legal aspect as well which is known as “intellectual property” and disclosure of this asset is called “commercialization”. Nowadays, corporates will succeed due to their intellectual assets and knowledge, not their financial assets (Muhammad and Arasteh, 2006).

Companies attempt in creating technology are important components of the industrial development. Iranian lawmaker has also considered the importance of this issue in the realm of legislation. These rules are as follow:

- Knowledge-based companies advocating act passed by Parliament in August, 2010
- The fifth development plan and particularly Article 17
- The statute of the Ministry of Science, Research and Technology

State took great steps for the development of science and technology in the country.

### REVIEW AND PROCEDURE OF KNOWLEDGE COMMERCIALIZATION

We will define knowledge and its commercialization and future challenges in the following study.

**Definition of knowledge:** Knowledge is defined as all the things that one knows and can be acquired through experience. Knowledge is minimizing data collection and reading, not increased access to information. Efficient knowledge can contribute to disposal of unwanted data and information.

**How to commercialize knowledge?:** There are different definitions for commercialization of the technical knowledge in the literature. Some define it as the process of standardization of the production operations to present and transfer this knowledge to others. For example, Jane has defined commercialization of technical know-how and technology as the process of transferring knowledge and technology from one person or a group of individuals to others to apply it in the system, procedure, product or method of performing a task (Jain *et al.*, 2009).

Commercialization is the process of entering research findings to services and products to supply to markets.

From pilot production that preparing a commercial proposal is done based on the technical, financial, legal, economic evaluations of present and future conditions and provide commercial production strategies; all are the steps of the commercialization process (Siegel *et al.*, 2003) In accordance with the above definitions, we can consider commercialization of technical knowledge as introducing a new idea or innovation to market. Firs, following three items should be studied in the commercialization process:

- Careful study of the market and exploration of the market's demands
- Standardization of the product development process, so that the product's key features can meet the essential requirements of customers

Performing managerial and study coordination to establish a connection between these two processes, including:

- Evaluation of the primary resources supply
- Financial and economic evaluation prior to the project startup
- Prediction for submission of the initial commercial plan
- Review and prediction of how to produce and submit the proposal along with schedule and warranty plan Chiesa *et al.* (2005)

**Difficulties in conversion of knowledge to good (commodification):** Converting intellect and idea to goods is reinforced by two features: financing and enjoying economic impact. In fact, the trade law that dealt with transaction of material goods from beginning of its formation, included services later by progression of human life and desire to increase welfare. Nowadays with development of human societies and increasing demands for knowledge for converting it to technology, it can be dare said that third generation of trade law has been emerged; and it is nothing but commodification of knowledge and presenting it as a commercial activity.

#### **REVIEW OF KNOWLEDGE-BASED COMPANIES AND THEIR RELATIONSHIP WITH INTELLECTUAL PROPERTY**

In this study, we will explore the structure of the knowledge-based companies, its relation with intellectual property and challenges they faced in acquiring intellectual property.

**The structure of the knowledge-based enterprises:** The question raises here is that among various corporations described in the trade law which one is more suitable for becoming a knowledge-based company? Answering this question is very important because company's structure has critical role in the company's life and also, companies can survive in the competition that benefited from strong and proper structure.

What is important is that although limited liability companies and private joint stock firms are acceptable from partner's perspective but in the macro-economic and international point of view, they cannot become successful firms. They can't perform very well and positively due to small investment, limited stakeholders and lack of important privileges such as issuing bonds. Although, state-owned companies naturally follow the commercial company's rules and regulations; however, the presence of government as a giant investor among other partners, makes these companies as private joint stock firm. Public joint stock firm is a plan that accounts for principal structure of big and transnational corporations in the developed countries and lead to their political and economic authority. Public joint-stock firms have great impact on the economic development and stability of these countries both in the national and international eras. On the other hand, given that public joint-stock companies could be listed in the stock exchange, discussion about knowledge-based corporations and the issue of investing on new research projects could affect their share value and increases their stock value and most of discussions about knowledge-based firms in the literature is about public joint-stock knowledge-based companies.

**Knowledge-based firms and intellectual property:** The development of science and technology inevitably lead to division of labor in the society and almost no one could concurrently think about employment and earning income from ordinary jobs along with considering the intellectual attempts to create new technology systematically. Hence, intellectual efforts achieved material values in contrary to the past and are known as the main supply route for provision of the inventor's material needs (Khalil, 2000). On the other hand, increasing advancement and variety of communication media have endangered and posed a great risk these assets that play an important role in development of civilization, culture, economy and industry. Consequently, official and public owners of the modern technologies have developed certain rules and regulations to support and supervise the intellectual properties of the creators of technology and encourage other countries to observe these rules (Goh, 2004).

In recent years, intellectual property has become a major and essential valuable asset of knowledge-based corporations. As a result, the intellectual assets value of firms increased on daily basis.

**Knowledge-based corporation's challenges in acquisition of intellectual property:** The knowledge-based corporations are faced many challenges in the way of acquiring intellectual property, including:

**Lack of skilled manpower in the intellectual properties domain:** High costs especially in the patent process. These costs can increase with addition of the costs relating to the translation of documents and lawyer's fees and intellectual properties institutions (Ali and Bagdlou, 2012).

Lack of enough knowledge regarding the intellectual property rights and how to protect it within the companies.

#### **LEGAL COMMERCIAL FACTORS AFFECTING THE SUCCESS OF THE KNOWLEDGE-BASED CORPORATIONS**

In this study, we will examine the legal factors affecting the success of the knowledge-based companies.

**The impact of intellectual property on growth of the market value of the knowledge-based companies:** Often the knowledge-based companies do not understand the real value of their intellectual assets; consequently, they don't benefit completely from using potential values of intellectual property for future growth and corporate profits. Intellectual property can increase the value and wealth of knowledge-based companies in front of investors and financial institutions. Intellectual properties could results in considerable increase in company's value through sale, integration or acquisition of this intellectual property. Therefore, strategic use of intellectual property can increase the company's capability to compete.

**Turning an invention to a profitable asset in the knowledge-based corporations:** The "innovative and creative" ideas are comprising the foundation of activities of successful companies. Nevertheless, mere idea has not enough economic value. In order to enable the corporate to change ideas into innovative products and services and profit, it needs their successful commercialization and development. The conversion of innovative ideas and inventions to competitive products also depends on the management and protection of the intellectual property, particularly patents are crucial because it'll lead to considerable increase in the company's income.

The knowledge-based companies can make use of granted patents and certificates and sold them through licensed contracts (royalties) to other companies whom have the necessary capability and capacities for commercialization of them. These activities could reduce current costs and expenditures of the knowledge-based companies; in addition it can make money without major investments (Abramson, 1997).

**The trademark relationship with success of knowledge based enterprises:** Trademarks are indicative of the company's business. These marks allow clients to identify the company's products and provide better market for the company in this way. These marks are not only representing the product of the company but also they are guarantees for consistent quality of its products and services. The high quality products will meet the consumer's expectation so he will continue his purchase (Hassan, 2011).

The company should carry out a wide inquiry before choosing and introducing its trademark and must make sure that selected trademark has not been registered by another company. Considering that the trademark offices in many countries register the trademarks without comparing with previously registered trademarks, thus, trademark registration in these countries won't imply that your trademark won't violate others rights. Therefore, we must search national database of trademarks prior to registering or exporting any products using the trademark.

#### **CONCLUSION**

The knowledge-based companies are defined legally as follow: knowledge-based corporates and organizations are private or cooperative organizations which are established for the purposes of synergy of science and wealth, knowledge-based economic development, scientific and economic goals attainment (including the development and application of invention and innovation) and commercialization of research and development results (including design and production of goods and services) in the fields of superior technologies with significant value-added, especially in the production of corresponding software.

These companies generally pursuit following purposes: conversion of idea to goods or commercialization of ideas and research achievements. Parks and growth centers define three steps to achieve this goal: first step: generating and processing ideas; second step: converting ideas into samples, comprising following procedures. Registration of company at a notary office (determining the relationship between shareholders, particularly the intellectual property's ownership);

Feasibility study of converting an idea to a sample (hardware and software required facilities, etc.). Achieving patent licenses and permits from the relevant executive body (applicability of the sample) and scientific approvals from corresponding authorities. Making use of government facilities and support. Third step: conversion of sample to commercial product (commercialization) which includes the following procedures preparing the feasibility study plan for conversion of the sample to product including technical and economic details. Adoption of activity permits from corresponding officials. Provision of implementation site land (priority in parks, growth centers and special economic zones). However, Iranian legislators also considered this important subject in their legislation efforts, including: Law on the protection of the knowledge-based companies approved by the Islamic Consultative Assembly in July 2010; the fifth development program law, especially Article 17; the statute of the ministry of science, research and technology. Iran has taken great steps in development of knowledge and technology, as matter of fact, the decade 1990s was the decade of development of higher education and post graduate courses, 2000's was the decade of development of research and inquiry and 2010's is the decade of commercialization of knowledge and technology production. There would be about 450 thousand knowledge-based corporations in Iran till 2025, according to comprehensive scientific country map.

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