

# Legal Aspects of Technology Transfer Through Foreign Investment in Oil and Gas Industry

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## ABSTRACT

Foreign investment contracts are one of the major ways to absorb the technology in the oil and gas industry. Studies show that governments and investing companies prefer to gain more profit, control economic resources and political influence by investing financially and technically in developing countries unless buying foreign technology and intellectual property rights directly. On the other hand, for developing countries, the sum of foreign capital and technology within a contract is a great opportunity for advancement, provided that the choice of technology transfer is made with due regard to the country's needs, requirements and economic future. In this article, after examining the relationship between investment and technology transfer and its various methods in the oil and gas industry, we will analyze the constraints and barriers of technology transfer through foreign investment in developing countries (including Iranian law) and provide a solution.

## 1. Introduction and Discussion Plan

Technology transfer involves the transfer of capital goods (such as devices and components used in the manufacture of consumer and capital goods), the acquisition of licenses for intellectual property rights, and the transfer of technical knowledge. As the level of technology transfer awareness of the technology being transferred is greater than that of the recipient; naturally, further collaborations will be discussed in terms of expert training and technical service delivery. This

difference of consciousness will be effective in the unfair formulation of the contract on the one hand and its interpretation for the benefit of the government or the transferor company on the other. Even if the two parties' level of knowledge of a particular information technology are equals, the value that each of them has for the technology and their expectations will be different.

The present paper deals with the legal aspects of foreign investment and technology transfer in the oil and gas industry. In addition to addressing the concepts, the role of organizations, companies and governments, laws

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and regulations, legal barriers and economic challenges, legal and practical solution applicable in our country. Examine the topic in the following parts.

- General.
- The role of international and transnational corporations in technology transfer.
- Foreign investment practices associated with technology transfer.
- Mutual Trade and Technology Transfer.
- Iranian law and foreign technology attraction.

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## 2. General

International technology transfer primarily flows through private markets, but may also take place through governments, nongovernmental organizations, and research bodies such as universities (Fox, 2019, p. 4).

If we accept the equation that in the world of business, knowledge is equal to money (investment) and ignorance is equal to poverty, then we can easily analyze the relation of knowledge and capital to the kinds of contracts that are considered as foreign investment. In fact, except where foreigners invest indirectly through the trading of stocks and so on, to gain a certain degree of benefit from the economic backbone of a country, there is a logical relationship between knowledge and capital. The existence of this connection allows for the intersection between technology transfer and investment.

Investigating this relationship requires explaining the concept of technology and its transmission and other related terms.

It should be noted that Investing in oil is not only for profit but also a means to ensure energy supply. Investing in the oil industry is a type of investment in which the host country and the owner country have common interests regardless of profit (Shiravi, 2018, p. 79).

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### 2.1. The Concept of Technology Transfer

In simple terms, technology transfer is a process in which technology, expertise, technical knowledge or advanced facilities are transferred from one person, institution or organization to another person or institution or organization. New technology is often complex for the recipient country, so it must add Technology transfer results' training to manpower, assemble parts, set up production units, and even in some cases change management and export systems.

Technology transfer involves the diffusion and adoption of technology between parties. It can be direct

or indirect, and always involves the transfer of technology from one institution (which developed the technology) to another (which adopts, adapts, and uses it) (Fox, 2019, p. 4).

The technology and technical knowledge transferred must have four characteristics: usefulness, novelty, confidentiality and value (Haji Azizi, Bijan (1992), p. 24). What is considered in this paper is the transfer of technology internationally and its association with some form of foreign investment.

Of course, we have to differentiate between technology transfer and technical knowledge transfer. As the transfer of technical knowledge is an essential part of technology exchange, not all knowledge is necessarily implemented. Technology transfer occurs when devices, materials or methods are used in practice to complete or complete a project (Doscher, 1974) and do not preclude intellectual property rights.

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### 2.2. Intellectual Property Rights and Technology Transfer

One of the issues in technology transfer is the intellectual property rights arising from patent, technical knowledge and capital goods. An examination of the role of TRIPS regulations in accelerating or slowing down technology transfer shows that theories in this area differ depending on whether the theorist belongs to the technology exporting country or its importer. From all of them, it can be seen that technology-owned companies value economic intellectual property rights and insist on this in their respective contracts as one of the important clauses of the contract.

While technology transfer typically occurs "formally" via foreign direct investment (FDI) or licensing agreements, it may also take place "informally" through processes such copying or reverse engineering (Correa, 2007).

The complexity and existence of different aspects of technology transfer preclude the mere observance or disregard of intellectual property rights in the degree to which the recipient of the transfer succeeds.

It should be noted that the era of violations of the intellectual property rights of others has passed and at least the reflection of this violation reflects the disregard of others by the violating state. On the other hand, investing or contracting for technology transfer should not become one-sided for the investor because one of the important aspects of technology transfer is the transfer of intellectual property rights arising from the invention,



design or new technology to the transferee (Maskus, 1998. pp 109-161). So that the latter has the ability to transfer technology or its product to others, or that technology may become fully owned after a while.

Article 7 of the Trips Agreement indicates that this document has chosen a middle ground in protecting the interests of intellectual property rights holders and technology recipients: The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

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### **2.3. General Barriers and Problems of Technology Transfer in Oil and Gas Industry**

Despite of dependence of these countries on oil production, there is a big gap between them and oil corporations from revenue point of view. This is mainly because of oil technology that has not been developed in oil-producing countries. In the world the business of big oil corporations is based on engineering capability and strong technical infrastructure (Asghari and et al, 2013, p. 264).

A look at domestic regulations, especially the constitution of the Islamic Republic of Iran, indicates that there are relatively major obstacles to foreign investment and technology absorption through the oil and gas industry. Barriers to technology transfer in the general sense mean any law, custom, or culture that constitutes an obstacle or challenge to the parties to a private law relationship and makes it difficult to comply with the terms of its "agreement".

Another set of obstacles comes from how the government views its position as "capitalist": Because it is possible that the government, assuming that it is superior to a foreign private individual, does not in practice oblige itself to strictly observe the provisions of the contract and the international law governing intellectual property rights and so on. However, immunity is not conceivable when the government engages in "corporate practices", both domestically and internationally.

Therefore, the entrance of foreign investors into developing countries often faces two major problems that we will briefly address with the technology transfer approach in the oil and gas industry:

The laws and regulations of the host government are inconsistent with the principle of foreign investment. This in itself may be one of two forms of constitutional opposition to aliens entering the economic structure or in the form of ordinary law. In some cases, the absence of legal certainty in the prescription of foreign investment, or the existence of cumbersome laws and regulations, each of which imposes unnecessary restrictions on foreign investors, can serve as a barrier or restriction on foreign investment.

Often one of the following two solutions is chosen first: One. The purchase of foreign technology necessitates the high price and acceptance of the conditions imposed by the foreign company (often not the most well-known company in the field) and the abandonment of unnecessary technologies through foreign product import preference. "Necessity" is recognized by the government and parliament of developing countries, often including the adoption of oil and gas extraction technology, the manufacture of military equipment and consumer goods. It is clear that in this case the question of technology development and bargaining power is rarely raised when concluding technology contracts. This situation, by itself, leads the government to conclude contracts secretly or vaguely and to avoid reflecting their true nature in public opinion.

Two. Trying to interpret the constitution extensively, abolish ordinary law, revoke circulars, and grant foreign investors amenities and concessions. In practice this approach has been responsive in most cases and, attracts foreign capital, provided that the investment and technology transfer if these are economical. The only major disadvantage is when the constitution is obstructed, in which case, the Foreign investor often act cautiously and in their investment contracts incorporate excessive and unfair conditions only on the pretext of constitutional restrictions and the full guarantee of their interests.

Particularly in the case of transnational corporations, ignorance of the capacities, requirements, and internal needs of the technology dimension makes developing countries virtually a suitable environment for the maximum economic benefit of foreign companies. Cheap labor and natural resources, a non-competing market, lack of consumer rights and ignorance of superior quality are important factors that bring profits to transnational companies and only increase consumption for the domestic market.

According to the current regulations of the Iran, there is a possibility of private investment, both domestic and

foreign, in the downstream sector. However, in the case of investing in upstream activities, Iranian laws and regulations do not have the necessary transparency, but mostly imply a ban, especially when it comes to foreign investment (Shiravi, 2018, p. 321).

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### **3. The Role of International and Transnational Corporations in Technology Transfer**

A review of the international actions of the United Nations and other relevant organizations (in particular, UNIDO and UNCTAD) points to efforts to support developing countries in attracting foreign technology. These measures are often limited to the formulation of regulations, codes of conduct and action plans, and do not have much guarantees against technology-savvy governments.

The international community initially focused technology transfer programs exclusively on the acquisition of hardware and machinery, dispatching tangible items to least-developed countries. Consequently, technology transfer from developed to least-developed countries rarely included human resource development or domestic capacity building (Correa, 2007, p. 23).

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#### **3.1. Actions of the United Nations and Related Organizations in the Field of Technology Transfer**

Because of the importance of technology transfer to developing countries, UN General Assembly Resolution 3202 and its subsequent Declaration establishing a new international economic order (United Nations General Assembly Resolution 3202) require respect for this principle. "Developing countries should have access to new science and technology, promote technology transfer, and produce indigenous technology in conditions that benefit developing countries." (UNCTAD 1996. Vol. I, p. 50). Also, Resolution 3281 of the General Assembly and the Charter of the Rights and Economic Obligations of Governments (Resolution 3281 (XXIX), 1974) provide in paragraph 4 of Article 13: All States should co-operate in research with a view to evolving further internationally accepted guidelines or regulations for the transfer of technology, taking fully into account the interest of developing countries.

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#### **3.2. The role of transnational corporations in technology transfer**

The long-term policy of transnational corporations is to set up a branch in the country of origin and ultimately use technology to "outsource" and deprive them of all proprietary rights. Unfortunately, the efforts of international organizations, most importantly, UNCTAD, to eliminate or at least modify this cycle so far, have not yielded a result that can be presented in figures (See: UNCTAD 2001). What has been said, it can be seen how the constitutional backwardness of a country from the unimaginable technical and commercial developments of the world may pave the way for the abuse of economic superpowers.

The benefits of this approach include the technology being updated and updated by the parent company and disadvantages are in economic dependence, the production and promotion of trademarks and merchandise owned by a foreign company domestically and the lack of actual transfer of technical knowledge in most cases.

The enormous financial and managerial power of transnational corporations, including the seven sisters in the oil and gas industry, has made them unattainable economic superpowers. These companies are the leading international oil and gas technology transfer agencies, providing services, investing in local products, staff training and local expertise, offering and providing technical services to product providers, and introducing scientific principles in related science research. , Development and engineering work do this (Chen, 1994, pp. 25).

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#### **4. Foreign Investment Methods Associated With Technology Transfer**

As noted, except in the case of foreign indirect investment, in almost all cases foreign direct investment is directly associated with the temporary or permanent transfer of technology to the host country. This fact itself implies a variety of investment contracts combined with technology transfer or stand-alone technology transfer contracts. Technology transfer practices in the form of foreign investment, in whatever form they are, follow two general trends. First, in most cases the goal of technology transfer is to protect the interests of the investor rather than to serve the host government. Second, especially if the host government representatives are unaware of the contract, the investing companies use technology transfer as a "means" for their own benefit, not a "matter" for the development of the



host country and they may, in the course of their contract, provide for the departure of machinery and technical knowledge from the host country upon completion of the project.

#### **4.1. Foreign Direct Investment**

The oldest form of technology transfer is foreign direct investment (FDI), through which the investor has complete ownership and control of all the facilities and subsidiaries it creates. With well-crafted national policies and institutional arrangements FDI helps to build technological capabilities (Manyuchi, 2016, p. 78).

Therefore, "foreign direct investment is a form of investment that operates internally, through which all transfers, and in general, all operations of the parent company and its subsidiaries are carried out (Ameri, 2001, p. 55). The most common way of investing and transferring technology to transnational companies is this method (Haug, 1992. p. 214). "In direct investment, the investor is the decision maker himself, the purchaser of the factors of production, the worker recruiter and the decision maker about the type of commodity, the market for sales and the price and the activity manager." (Bakhtiari, 2001, p. 14). Direct investment has many benefits for the investor. Supporting the competitive market through the production of goods in different countries, the creation and access to a new market, the avoidance of customs duties and double taxation resulting from the export of goods to the host country (due to the production of goods in that country), access to The cheap labor force is abundant and available natural resources (so that it does not need to be imported from abroad) and enjoys the legal and economic protection of the host country (UNCTC, 1986).

It is generally assumed that foreign investors produce at a higher level of technology than local firms and therefore can stimulate such effects through technology transfer from more advanced countries to developing countries (Osano, 2016, p. 14).

Unlike direct investment, in indirect foreign investment, the investor does not seek to form or control or own a particular company or branch and does not directly intervene in the management and decision making of a unit. This type of investment is done through the purchase of securities (stocks and bonds) of existing companies (Bakhtiari, op. cit, p. 15).

#### **4.2. Establish a Joint Venture Capital Union**

Although the term "joint venture" is not quite clear in the concept of "joint venture", it nevertheless refers to

the participation of an investor and an investor in investment projects. The Joint Venture (J.V) means that "private or public law entities, if they so wish, may participate in the project on an equal footing" (Khazaei & Badri Ahari, 1990, p. 59).

The creation of a transnational joint venture union enables its link to the discussion of foreign investment and technology transfer in the oil and gas industry. Unions are divided into two major types, namely Equity Joint Venture and Contractual Joint Venture. Due to the poor or technically weak (host) side of the joint venture, the foreign ally actually brings its technology and know-how to the company, thereby enabling foreign technology to be acquired and absorbed.

Despite legal issues concerning the nature, form, management, capital, structure, inspection, obligations and nationality of trade, industrial and international investment unions, these institutions are increasingly used and even reports indicate the willingness of transnational corporations to form a joint venture in developing countries (Hayden, 1976. p 26).

The external party's commitment to technical investment (not in the form of money) and its commitment to technical training of the host nation's personnel, direct intervention and practical involvement of host managers, experts and specialists throughout the process of pilot studies, design, production and management, export and Sales of the Joint Venture are among the factors that allow for maximum economic return and technology transfer to the host country.

#### **4.3. Technical and Equipment Assistance Agreement**

Investing foreign companies in developing country industries sometimes does not come within the framework of conventional titles available. For example, the technical, equipment, and human assistance of the company (a) in completing or upgrading the country's oil and gas industry (b) may be in the form of non-cash investment with a percentage share of the profit. Such contracts are similar to foreign direct investment in that they are associated with foreign investment in an important part of industry or domestic services. Among the differences between foreign direct investment and technical-equipment assistance are that the external party does not have a stake in managing the host company. In addition, the trademark of the foreign affiliate company shall be incorporated only upon agreement of the parties only in parts having a role of more than 60% in their production or supply. However,

in foreign direct investment, the product is managed under the name of the foreign parent company.

#### **4.4. Construction, Operation and Transfer Contracts (BOT)**

One of the contracts awarded for infrastructure and macro-industrial and economic projects is the construction, operation and transfer contract. "In a standard BOT contract, a project is licensed by the government to be built by a private company and then put into operation by the company for a period of time and transferred to the contracting government after the contract expires" (Shiravi, 2001, p. 32).

In almost all states, contracts with foreign companies for construction and operation are permitted only on the condition of internal technical disability or weakness. If the "Law on the Maximum Use of Technical and Industrial Production and Executive Capacity in the Implementation of Projects and Facilitation for Export Services", also approved by the Islamic Consultative Assembly on 22/12/1375, the priority in industrial and production plans Domestic, with producers and companies that have Iranian nationality In cases where the private party to the contract is one or a number of foreign or transnational companies, BOT may be regarded as one of the most important sources of technology entry into the country. For this reason, under the BOT contract, the private party to the contract is required to bring equipment, skills and technical knowledge to the country. As with other investment contracts that are associated with some form of technology transfer, some internal issues can prevent the fulfillment or fulfillment of obligations arising from BOT contracts or dramatically increase the cost of such contracts for the host country. To conclude the BOT contract, "First, the barriers to private sector entry into these activities must be remedied. And secondly, policies are in place to enable that private company to successfully design and operate the plan for the time being." And secondly, policies to enable the private company to successfully implement and operate the project in the appropriate timeframe (Shiravi, 2001, p. 42). "At the stage of implementation of the contract, there are laws that prohibit the exchange of foreign currency under any circumstances; the possibility of seizing, confiscating and possessing foreign capital, the lack of a transparent system for resolving foreign investment disputes, and intellectual property rights disputes. Implementation of the BOT contract is one of these problems. Add to these problems the unconscious, alienated, and pessimistic cultural space.

### **5. Mutual Trade and Technology Transfer**

In the simplest form, Mutual trade is, the exchange of one commodity with the other, and in the most complex form is considered to be foreign investment" (Baker & Cunningham, 1983). Since this type of business involves technology transfer, it is necessary to study it.

Article 1 of the By-Laws of Mutual Transactions, Subject to Paragraph (i) of Note 29 of the First Economic, Social and Cultural Development Plan of the Islamic Republic of Iran (Decree No. 82 / T 13 K dated May 01, 1990 of Council of Ministers), the Mutual Transaction Contract is defined as follows: "A contract concluded between two natural or legal persons, in which one 'supplier' commits to the other party 's exporter's obligation to produce and deliver a specified quantity of specified goods or goods for export to the country during the time of the case. The agreement undertakes to provide the party with the materials, tools, machinery, parts and services required to fulfill its obligation." But what counts for cross-commerce and what is relevant to our discussion is its achievement in terms of technology transfer, especially in the oil and gas industry Mutual trade can involve the process of transferring the technology necessary to produce a product or transferring the knowledge and skills required for a particular industrial product (UNCITRAL Legal Guide (1992), p. 56). As we have seen, different types of cross-trade methods are sometimes so similar that they are difficult to distinguish from one another only by examining the detailed terms of the contract. At the same time, all of these practices are in some way associated with the attraction of technology from the developing contractual relationship.

Mutual contracts can transfer technology in three dimensions: First, the investment that is being made to execute the contract or as a condition of doing so in the country seeking development. For example, in a reciprocal contract, a foreign company provides technology transfer by entering and deploying machinery, technology, and financial assistance to the host country.

Second, technology transfer through the import of goods is using modern or non-existent technology in the host country. For example, in the indirect offset contract, the advanced equipment is imported from the exporting company to the host country for the reciprocal obligations, licenses and skills required to use the software.



Third, the reciprocal commitment to supply goods from the investing country sometimes provides the field of technology transfer, required license and patent to the project site. For example, a direct offset contract may require the outside party to invest in the production of parts or parts of the project with domestic producers and to co-produce those parts domestically (Shiravi, op. cit, p. 25).

The condition for achieving new technology in any of the above ways, in addition to the physical entry of technology into the country, is to obtain the necessary licenses to apply the achievements of others. There are various types of documentation to protect intellectual property rights that technology exporting countries never adopt, either contractually or non-contractually. For example, the European Patent Convention and Convention Establishing the World Intellectual Property Organization (1967 and 1979) emphasize compliance with these rights. It is natural that any licensing must be in the national laws of the investing country and in accordance with the internal regulations of the host country. And practically, in a cross-patent contract, the right to trademark and other industrial rights is envisaged and based on that agreement on technology transfer.

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## 6. Iranian Law and Foreign Technology Attraction

The attraction of foreign technology in our country, for various reasons, faces major challenges. In the case of foreign technology, it must be acknowledged that the lack or weakness of a dynamic system for development evolves in line with the needs of the time and with regard to specific aspects of foreign technology leads some problems. In this article, after briefly reviewing the laws and regulations and challenges of Iranian law in the field of technology absorption, we conclude that tangible progress in this area will require fundamental changes in the legal structure (elimination of redundant regulations and adherence to useful or necessary treaties). In the judiciary (the tendency for private litigation and attention to international jurisprudence) and the reform of the technology management system with a sustainable perspective and future needs.

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### 6.1. Iranian Laws and Regulations Regarding Technology Transfer

Most of Iran's problems with technology transfer are related to laws and regulations. Existing or generally laws have highlighted the importance of outsourcing without any restriction (such as development program rules), or as a real or apparent obstacle to technology

transfer (such as some constitutional principles), or by adding to the investment formalities and the silence about technology absorption as a result of foreign capital inflows have led to problems.

The statute of the Iranian National Oil Company approved in 2016, like other related Acts has not explicitly discussed technology transfer and only in general, in two articles, has indirectly referred to the subject. Article 6 deals with the duties and authorities of the oil company; in paragraph 5, any patent and exploitation of it and industrial designs and technical knowledge, registration and other measures in the field of oil industry are some of the duties of Iranian National Oil Company. Clause 6 also considers the assistance and support of Iranian knowledge-based companies as one of the duties of this company.

Paragraphs 21 and 22 of Article 52 also indirectly support the promotion of the company's activity index with international standards and the use of knowledge-based companies, which results in technology transfer.

A review of the "General Policies of the Fourth Development Plan of the Islamic Republic of Iran" indicates the importance of technology and its attraction. Some of these policies include:

-Acquisition of technology, in particular new technologies including micro-technologies and biological technologies, information and communication, environmental, aerospace and nuclear "(paragraph 9).

"Taking advantage of political relations with countries to institutionalize economic relations, increase resource absorption and foreign investment and advanced technology and expand Iran's export markets and increase Iran's share of world trade and accelerated economic growth in the landscape" (paragraph 29).

"Striving for a diversified economy based on the sources of knowledge, human capital and modern technology" (Article 36).

Accordingly, Article 48 of the Fourth Development Plan Act, dated 11/6/83, provides: "The Government is obliged, during the Fourth Plan, to promote the continuity between the educational levels and the development of technology, entrepreneurship and wealth production in the country:

A) Establishing and providing the necessary support for the creation of non-state technology development companies and engineering services companies with the

mission of producing, transferring and absorbing technology.

B) Developing standards and providing the necessary support to encourage external parties to international contracts and foreign investment to transfer part of their R&D activities to the country and to do so with the participation of domestic companies.

Article 14 of the Fourth Development Plan Act stipulates: "(a) The Government shall provide for the reciprocal plans of the entities subject to Article 160 of this Act, as well as non-state public institutions and banks, and submit them to the Islamic Consultative Assembly for annual budget bills."

(B) To enhance oil production capacity and maintain and enhance Iran's OPEC production share, to encourage and support the attraction of foreign capital and resources in upstream oil and gas activities, particularly in joint fields and exploration projects, to ensure that increasingly the recovery coefficient of the country's oil and gas reserves, the transfer and application of new technologies in the development and exploitation of oil and gas fields, and the possibility of using various international contracting methods, will allow the National Iranian Oil Company to increase the additional production ceiling provided in Paragraph (c) of this Article concerning the conclusion of field exploration and development contracts Proceed with the financing of any field with ... by providing funding to external parties or companies with internal qualifications.

"Paragraph H of Article 14 of the above law states: "In order to identify and explore more oil and gas resources throughout the country and to transfer and apply new technologies in exploration operations in all areas of the country (except Khuzestan, Bushehr and Kohkiluyeh provinces). And Boyer Ahmad) who conduct exploration activities related to contractor risk leading to the discovery of a commercially viable field, Allow the government to ... Select the action and the contractor in accordance with the legal requirements for the conclusion of mutual reciprocal exploration and extraction contracts. Exploration costs (direct and indirect) will be paid in the form of the said contract, together with development costs from the sale of products manufactured in the same field. The licenses issued are limited in time and in each case are designated by the Ministry of Petroleum and can be renewed once."

Examining the above-mentioned provisions cited above does not imply the existence of a comprehensive

and future-oriented program to attract foreign technology. The government and parliament, it seems, should be thinking of providing a comprehensive system for clarifying the current and future state of technology, technical knowledge and research, rather than laying down detailed rules for foreign capital and technology contracts.

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## 6.2. Challenges of Iran's Rights in Technology Transfer

Unlike foreign direct investment, which exposes one's own capital to all the risks that the business world faces; The tangible and objective aspects of direct investment and other practices that bring about the transfer of technologies and sciences and techniques have led to their being protected under customary international law and international treaties. Today, over 80 international instruments, and even more bilateral treaties, mandate technology transfer (Fox, 2019, p. 4). Investor governments provide maximum protection to their subsidiary companies through their civil liability plan or by applying the principles of diplomatic relations as part of their duties (Sornarajah, 2004, p. 8) and in this structure, the capitalist governments' sudden reliance on domestic restrictive laws or their own judicial immunity is ineffective.

If it looks realistic, all of our rights problems with foreign investment and technology transfer are not due to a lack of regulation and legal vacuums. As a major impediment, the existence of extra-rigid laws - whether in the form of explicit and unexplainable constitutional principles or in terms of regulations and approvals that in some cases has a negative or disturbing function beyond the law - must also be addressed and added problems. Therefore, Iran's challenges to technology transfer through the attraction of foreign capital can be summarized as follows.

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### a. Insist on Inefficient Domestic Legal Positions

Although decades have passed, some parts of the business practices and some laws have been proven to be inadequate, yet their insistence on them still prevents them from attracting foreign technology and capital. One of the problems is the emphasis on the presence of the government in the country's macroeconomic sector with a public face - and not as a private businessman.

Inefficiency of legal system typically appear in upstream industries. The Foreign Investment Encouragement and Protection Act do not appear to be able to enact specific laws prohibiting investment in





upstream operations and upstream industries that are constitutional. So far, no foreign investor has applied for an investment license from the Investment and Economic and Technical Assistance Organization of Iran to invest in the upstream sector, or has not succeeded in obtaining a license, which confirms that foreign investment in the upstream sector. It is not legally possible (Shiravi, 2017, p. 318).

#### **b. Weak Legal Infrastructure and Inability to Adapt to New Developments**

Protecting domestic producers and consumers from alien or indifferent intellectual property rights violations is one of the underlying problems in our country's legal system. Countries possessing advanced technology and knowledge do not pay any attention to the legal structure of the offending countries in the treaties and regulations adopted at national and international level to protect intellectual property rights. Even the acts of the UN General Assembly are presupposed to protect these rights by default.

### **7. Concluding and Presenting Practical Solutions**

When choosing a foreign technology attraction, one must keep in mind that the needs of different countries differ and by careful study of the economic conditions of our country, the appropriate method should be chosen according to the type of industry and its efficiency.

Before praising one method and denouncing other practices, one must assess the existing legal barriers and the status of the relevant industry in the country's economic system. Otherwise, the method chosen will not only lead to technology transfer, but will also lead to a permanent dependence on foreign companies for the management of imported technology, marketing and product sales. The topics discussed in this article provide the following facts: First, countries are technologically hierarchical, and therefore may be technologically superior to underdeveloped, but relatively advanced. This often results in the transfer of the most advanced technology from (a) to (b) and the transfer of second-hand technology from (b) to (c). There are two important exceptions to this principle: (A) Micro-technologies that are transferred from one private industrial company to another in a developing country, such as food production technology. (B) In the case of strategic technologies whose transmission is often infrequent, and in most cases, without the technology transfer being discussed, only the product is delivered under a contract prohibiting imitation. For example, ballistic missile technology is

rarely traded in military-pole relations, and the technology-savvy countries rely on internal capability, exploration and exploration of the content of the missile and military industrial espionage in the first country to produce it. They have achieved this technology.

Third, technology-owned companies do not reasonably seek to trade competitors for themselves in the domestic (international technology transfer) and international markets (assuming that the technology has widespread and expandable user experience). For this reason, while reluctant to transfer technology, they often pass on their technical knowledge and tools to others who have reached the stage of technical exhaustion or are not economically viable. Assuming equal technology transfer to industrialized or partially developed countries, the transferee adjusts the contract so that its interests are maximized.

Fourth, bargaining on technology transfer contracts is effective at all stages, conditions, facilities, services, and effects of the transfer. Only those developing governments are successful in bargaining to benefit from strong lawyers, economists, and business administration. Only those developing governments are successful in bargaining to benefit from strong lawyers, economists, and business administration.

Fifth, the performance of some countries seeking to evade contractual obligations after technology transfer, including by failing to comply with contractual conditions, patent infringement, licenses and licenses, or product and trademark simulation, although in the short term Consider the concept of economic growth. But in the long run, expensive experience and excuses will give companies that developing countries are forced to sign technology contracts because of their technical dependency. Therefore, the effect of cancellation or failure to comply with previous commitments is nothing but the surrender of some kind of accession contract.

Sixth, the condition for the success of countries importing technology, research and scientific research is to enhance scientific and technical capability and cannot rely on the knowledge and technical strength of others in all aspects of industry. Today, economic dependency has proven to be the worst kind of dependency and the best conduit for the abuse of industrial power.

Finally, it must be acknowledged: the introduction of foreign technology into the country does not necessarily mean "legal transfer". Foreign companies may import technology to secure their capital and then sell it to the host country at a high cost, reducing the profitability and introducing new technologies. What is important for this

technology for the future of the host is the effort to achieve self-sufficiency and to promote internal knowledge. Otherwise the technical dependence on the general concept must always be tolerated.

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