LAW AND DEVELOPMENT OF TECHNOLOGY:
THE IRANIAN CASE

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ABSTRACT

This thesis is essentially a study of how intellectual property, transfer of technology and competition rules can be interfaced properly in Iran to facilitate the flow of technology into the country. The law governing the transfer and development of technology is a relatively new and non-traditional discipline. The thesis is intended to make a significant contribution to the limited number of publications available on the subject especially in examining within one volume the principles of three branches of law of great significance to economic development.

The focus of this thesis is Iran. Iran is a country with a rich culture and a history that goes back to thousands of years. She has abundant natural resources including oil and a large domestic market and enjoys a strategic position in international trade and politics. Seven decades have passed since Iran attempted to acquire foreign technology to industrialise important sectors of her economy but the country continues to be dependent heavily on foreign technology and her economy remains an oil driven one. Part of the problem is the absence of a strong legal and institutional framework within which secure investments both local and foreign can take place on an enduring basis.

The thesis shows that the international community has failed to provide an international legal framework responsive to the special needs of developing countries which are, therefore, constrained to rely on their own domestic institutions to tap into the technology available across the world. Given that international Conventions - such as the Paris Convention and the GATT/TRIPS Agreement provided developing countries with space within which they can fashion their national laws and institutions regarding the transfer and promotion of technology, how should Iran reconstruct its local laws to secure indigenous development of its industrial and technological infrastructure? The thesis proposes a package of legal reforms and institutional changes which are intended to encourage the flow of technology into the country by guaranteeing the protection of acquired rights and assuring mutual benefits to both technology suppliers and recipients.

The thesis is divided into four sections: Section I provides a historical background to Iran’s attempts to industrialise, Section II is an analysis of the interfacing between intellectual property laws, competition laws, transfer of technology laws and international law to uncover the legal problems relating to the transfer of technology to the developing countries, Section III examines the existing national legal framework within which the flow of technology takes place in Iran and Section IV devises an optimum legal and institutional regime to maximise the transfer of foreign technology and promotion and development of domestic innovative activities with particular reference to Iran.

In this thesis, the proposed Development of Technology Law of Iran lays down rules for patent grants, transfer of technology agreements and protection of competition and, for the first time, will bring the three areas of law under the supervision of a single independent agency of the government whose central purpose will be to develop a technological base in the country and advance industrial progress.
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<td>Cornell International Law Journal</td>
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<td>CTC Reporter</td>
<td>Centre of Transnational Corporation Reporter</td>
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<td>Duke L. J.</td>
<td>Duke Law Journal</td>
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<td>ECR</td>
<td>European Court Report</td>
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<td>ECLLR</td>
<td>European Community Law Review</td>
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<td>E. D. Pa.</td>
<td>Eastern District (Court) of Pennsylvania</td>
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<td>EEC</td>
<td>European Economic Community</td>
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Int'l. Buss. Lawyer | International Business Lawyer
Int'l. & Comp. L. Q. | International & Comparative Law Quarterly
Int'l. Lawyer | International Lawyer
Int'l. J. M. E. Stud. | International Journal of Middle East Study
Int'l. Bus. L. | International Business Lawyer
Iranian Stud. | Iranian Studies
ITO | International Trade Organization

J. Int'l. L. & Econ. | Journal of International Law & Economy
J. Contemp. L. | Journal of Contemporary Law
J. L. H. | Journal of Legal History
J. Prop. R. | Journal of Proprietary Rights
J. Devel. Stu. | Journal of Development Study
J. Dev. Areas | Journal of Developing Areas
J. Bus. L. | Journal of Business Law
J. Eco. His. | Journal of Economic History
J. Int'l. Aff. | Journal of International Affair
J.W.T.L. | Journal of World Trade Law

L. & Bus. Lic. | Law and Business of Licensing
L. Q. Rev. | Law Quarterly Review
L. Soc. Gaz. | Law Society's Gazette
L. & Tech. | Law and Technology
L. & St. | Law and State

Mcgill L. J. | Mcgill Law Journal
MD. J. Int'l. L & T. | Maryland Journal of International Law and Trade

N. L. J. | New Law Journal


R. P. C. | Restrictive Practices Court
RBPs | Restrictive Business Practices

S. D. W. Va. | United States District Court for the Southern District of West Virginia
Stan. L. Rev. | Stanford law Review

TOT  Transfer of Technology

UNCTAD  United Nations Commission on Trade and Development
UNCTC  United Nation Centre on Transnational Corporations
U. S.  United States Supreme Court Reports

Vand. J. Trans. L.  Vanderbilt Journal of Transnational Law
Virginia J. Int’l. L.  Virginia Journal of International Law

W. Comp.  World Competition
W. Eco.  World Economy
W. Dev.  World Development
WIPO  World Intellectual Property Organization
Preface and Acknowledgements

Iran is unlike any other developing country. It is rich and has all the vegetable, mineral and animal resources to be able to do without the rest of the world except for one commodity - technology. For decades, Iranian leaders gave away Iran's oil wealth for the glitter of Western goods and services and those who came to trade did not stay. They went away with the household silver back to their secure societies and comfortable homes. Many Iranians too left for the US and Europe taking with them their wealth to invest in the already developed world and some of them, the Iranian elite, even flitted between the developed world and Iran. They were allies of the multinationals and friends of contractors and consultants who could not or would not pass some of their technology to the Iranians. My work was to ascertain why this was so. As a lawyer, my concern was whether the law can do something about it. And my conclusion is that the law can.

My greatest intellectual debt is due to Professor John Adams, University of Sheffield and Director, Intellectual Property Law Institute, for introducing me to the subject and whose thoughts, studies and discussions inspired me to undertake this research. I am also indebted to Dr Jeremy Phillips who was my first supervisor before he left QMW. His writings on intellectual property and transfer of technology influenced my work. He read drafts of this thesis and sought to advise me in the midst of a busy public and scholarly career of his own. I owe my special thanks to my supervisor Dr. Noel J. Byrne whose special attention, comments and criticism changed my work from a general and broad study to a thesis focusing on the essence of the subject. His guidance and insightful comments were invaluable for the accomplishment of this work. I should not forget my friend and colleague Dr. K.V.S.K. Nathan, Barrister of Mestrino (Italy), for supplying me with World Bank development materials and for reading the proofs of the thesis.

When I began my research, the interaction between intellectual property rights, technology transfer and competition laws was shrouded with mystery in Iran and no publications are available on the subject. During my two visits to Iran for the purpose of my research, many people at all levels of the Iranian government gave generously their time and offered me access to documents. I am most grateful to these people, who are too numerous to mention. I also wish to express my gratitude to Dr Assad Ommar of UNCTAD, Geneva and the staff of the Centre of Intellectual Property Unit of Queen Mary & Westfield College, particularly Mrs Ellen Gredley for her excellent service in the small but valuable library of the Centre. I would like to thank those who in one way or another provided feedback on my language use in the final writing-up of this thesis.

It was a difficult time for my wife who suffered most during my undertaking but her patience and encouragement reassured me particularly after my meetings with my supervisor. I cannot express in words the gratitude I owe to her.

Seyed Mohammed Fasih Marnani
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SECTION I:
INTRODUCTION AND HISTORICAL CONTEXT
Chapter One

INTRODUCTION

The developing countries face major problems in their attempts to acquire foreign technology to industrialise important sectors of their economies. The problems are the consequences of a combination of factors such as the adoption of poor economic and monetary policies, the prevalence of political instability, the indifference to corrupt practices and the lack of respect for basic civil and human rights which encourage the flight of local capital abroad. Most developing countries recognize these problems but even if they are successful in overcoming them they will not succeed in the acquisition of needed technology in the absence of a strong legal framework which facilitates the transfer of foreign technology, protects the rights of owners of intellectual property, ensures a free and competitive market in goods and services without privilege or favour and promotes a healthy legal environment for all economic and commercial activities. Such a framework will also provide the necessary incentives for the development and application of local expertise and skills to invent new and competitive local technology.

To varying degrees every developing country has laws on its statute books to cover economic and commercial activities within its boundaries but not all these laws are comprehensive and effective in critical aspects particularly in regard to transfer of technology matters. Nearly all laws which have some bearing on transfer, development, and diffusion of technology are enforced in an uncoordinated and haphazard manner. In some countries, the laws are hardly enforced at all chiefly because of the lack of strong institutions with the powers, procedures and expertise to monitor market activities including the flow of technology and to take legal and other action as necessary. Without the appeal of an efficient monitoring and enforcement capability it would be unrealistic to expect an unimpeded flow of technology from the developed countries to the developing countries.
Iran is typical of a less industrially developed country which has experienced several stages and circumstances in the process of acquiring foreign technology. The case of Iran can be very important for other developing countries since Iran despite its scientific and industrial history, rich natural resources including abundant oil, sufficient foreign earnings, liberal foreign investment law and relatively strong protection of foreign industrial property rights has not yet succeeded in building a reasonable technological base and achieve her economic and industrial objectives. In comparison, South Korea, Brazil, India and China with less resources than Iran are now exporting technology in significant areas to other developing and even some developed countries.

The objectives of this thesis

Given that international Conventions - such as the Paris Convention and the GATT/TRIPS Agreement provided developing countries with space within which they can fashion their national laws regarding the transfer and promotion of technology, how should Iran reconstruct its local laws to secure indigenous development of its industrial and technological infrastructure? This basic question invites the following further questions:

1. What are the legal problems relating to the transfer of technology to developing countries? This requires an analysis of the interfacing between intellectual property laws, competition laws, transfer of technology laws, general commercial laws and international law;

2. How effective is the existing national legal framework within which the flow of technology takes place in Iran?

3. What is an optimum legal and institutional regime for Iran to maximise the transfer of foreign technology and promote domestic innovative and technological activities.

This thesis is divided into four main sections. Section I presents the subject of the thesis in its historical context, Section II analyzes the interfacing of relevant national and international laws in regard to transfer of technology, Section III considers the present legal framework within which the transfer of technology takes place in Iran and Section IV of the thesis concludes that countries in the same
situations as Iran could benefit from bringing the administration of patent, transfer of technology and competition laws under the umbrella of a single agency. The thesis proposes for the first time a draft Development of Technology Law for Iran to encompass these three areas of law and the establishment of an Iranian Board for Transfer and Promotion of Technology.

I. Iran and Foreign Technology

One may usefully begin with a brief account of the basic problems faced by developing countries in their struggle to achieve a satisfactory degree of industrialisation. But much of the discussion is concentrated on the particular problems of Iran in the development and acquisition of foreign technology. Many parallels can be drawn between Iran and other developing countries. The story of the attempted transformation of Iran into an industrialised society provides an understanding of the current problems of developing countries with regard to national and international regulation of technology transfer agreements. Whereas the industrialisation process of the developed countries began four hundred years ago, in the case of most developing countries, industrialisation started for the most part after the second world war. The particular feature of such a period was the new economic and political order in which many developing countries were placed after their independence and began their struggle to acquire economic independence as well.

For a proper understanding of the problems of most developing countries, three stages of the industrial development of Iran will be examined. First, the reign by the Qajars (1796-1925) shows the situation of the country at the time when the industrial revolution was fundamentally changing the face of Europe. Second, the period covering the first and second world wars when Western-type industrialisation started and continued until the revolution of 1979 when the rule of Shah was brought down.
Third, the aftermath of the revolution of 1979 which terminated 2500 years rule of Iranian monarchs and founded the Islamic Republic of Iran. No comprehensive studies have been undertaken to date to analyze the inadequacies of the policies, laws and institutions of Iran with regard to the development and acquisition of foreign technology. The thesis begins with such an analysis which, *inter alia*, will provide the backdrop for a proper understanding of the intricate features of Iran’s movement towards an industry-based economy.

II. The Qajars (1796-1925)

During this period, few serious efforts were made to establish new industries and secure the transfer of foreign technology to Iran.¹ The most important example was a comprehensive program introduced by Amir Kabir, the Prime Minister of Nasser-ed-Din Shah, in 1846. He was also known by the name of Amir Nezam. Having realised the importance of technological progress as a necessary condition for economic development² and with a view to establish new light industries and

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¹ For this study technology is defined as technical information that empower man to produce useful goods, or to render services. Technology transfer implies that the recipient of technology not only acquires hardware and software but eventually accumulates the technical knowledge, which is necessary to master the imported technology. There is a general agreement that countries need to develop specific capabilities in order to achieve this. UNCTAD, *Technology Indicators and Developing Countries*, U.N. Doc. ITP/TEC/19, 1991, p. 6. For analysis of the concepts underlying the discussion on transfer of technology, see Robinson A. (ed.), *Appropriate Technology for Third World Development*, proceedings of a conference held by the International Economic Association at Teheran, Iran, London, 1979; Patel S. J., *The Technological Dependence of Developing Countries*, J. M. African Stud., vol. 12, 1974, pp. 1-17.

² Technology has been widely recognised as a crucial factor that affects nearly every aspect of economic and social change of countries. Technology leads to effective use of labour, capital and natural resources thus affects productivity, amount, composition and costs of products, levels of employment, trade flows and degree of competitiveness. Technology itself and the ability to innovate are widely regarded as the main, if not dominant sources of competitive advantage of countries. Porter M., *Competitive Advantage - Creating and Sustaining Superior Performance*, New York, 1985, p. 3. Recent studies estimate that the contribution of technology to productivity growth as 75 per cent. Kunz-Hallstein H. P., *Patent Protection, Transfer of Technology and...*
manufacture goods imported at that time in large quantities by Iran, Amir Kabir contemplated actions going beyond the mere transfer of hardware technology. He tried to provide an environment in which national skills could take root and flourish. He encouraged local firms which were engaged in inventive and innovative activities by rewarding them with an industrial policy aimed at protecting them against competition from imported goods. Amir Kabir also fostered the growth of a mining industry by issuing a decree for the liberalisation of the granting of mining permits for any Iranian interested in opening new mines and for Iranian mining enterprises to be exempted from tax levies for a period of five years. It was during this time that some important mines began to be exploited by Iranians themselves.

(a) Training as a Key to Development

The important role of science and technical knowledge in industrialisation of Iran was recognised by Amir Kabir very early in his regime. In 1846, he founded the first modern university of Iran, called Darol Fonoon (Academy of Techniques) to train students in acquiring proficiency in many technical fields. He was the first Iranian Prime Minister to encourage and support the translation of foreign scientific and technical books in the industrial sector. While he brought into the country foreign teachers to work in the Darol Fonoon, he continued to send Iranian students abroad in large numbers to learn new techniques and pursue a variety of science and engineering courses. Although the imposed treaty of Turkamanchai had encouraged

Developing Countries: A Survey of the Present Situation, 6 IIC, pp. 427-455, p. 428.

3 In order to achieve a sound technological base, developing countries must develop their own specific capabilities, domestic innovative activities and internal generation of needed technologies through local research and development. However, it has been accepted that, domestic innovative activities complement rather than substitute imported technology. See UNCTAD, Fostering Technological Dynamism: Evolution of Thought on Technology Capacity Building and Competitiveness. U.N. Doc. TD/B/WG.5/7 of 24 September 1993, p. 6.

the presence of foreigners by allowing them to enjoy many expatriate privileges, Amir Kabir was anxious particularly to exclude all foreign manufactured goods from Iran, by way of promoting native industries.

The general economic conditions in Iran during the 18th and 19th centuries were very promising. Iran demonstrated considerable self-reliance in her economy which was based primarily on agricultural products but also included the manufacture of handicrafts, textile and soap products and the spinning and weaving industries. Some of these products such as silk, cotton, garment, rice and fruits were exported. In 1849, there were around 2000 silk weaving factories in Iran. It was during the premiership of Amir Kabir that, through transfer of foreign technology, several sugar, glass, chinaware, paper and spinning factories were established and operated.

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5 In 1828, having lost her war with Russia, Iran signed the treaty of Turkamanchay. By this treaty, Iran among other things was forced to extend extra-territorial privileges to all Russian subjects who lived in Iran. Furthermore, Iran had to limit her tariff in commerce with Russia to 5% ad valorem, both for imports and exports. These privileges were later extended to other nations under the most favoured nation clauses of treaties. Thereafter the Iranians could not compete with foreign traders who did not pay any tax and were not obliged to respect any law or regulation of Iran, even for their serious crimes. Hertslet E., *Treaties Concluded Between Great Britain and Persia*, London, 1891.


8 Ibid, p. 11.


10 The transfer and development of foreign technology to developing countries have been emphasised, because, given the highly unequal distribution of international research and development resources, production of new technology locally in developing countries is "relatively insignificant source for a long time to come". Lall S., *The Patent System and Transfer of Technology to Less-Developed Countries*, J.W.T.L., 1976, pp. 1-16, p. 2. Today even the industrialised countries import some of their technology and production techniques from other countries. New technology is the result of costly research and development activity. Wherever it takes place it is valuable and modifiable for other nations as well. For developing countries, thus, until the achievement of a certain level of industrial and scientific development, the knowledge, inventions and technological process already in use in industrialised countries should be regarded as a main source of technological progress.
The pace of development of the indigenous nascent industries declined in the subsequent years. While the industrial revolution was taking place in Europe and facilitating the application of science and utilisation of new technology in the mass production of goods, Iran was at war with her northern neighbour Russia over disputed territory. Russia with her advanced weapons and a far better conventional military force won the ten-year war and forced Iran to make a number of concessions to Russia, including special low tariffs. Other foreign countries, especially Britain, demanded and won the same concessions.  

(b) Power Struggle Over Iran

Unfortunately, Iran became the theatre of a vicious power struggle between Russia and Britain, as they competed for colonial possessions. Britain regarded Iran as a strategic country, as well as a market for her surplus products. Russia could not stand to see her rival active in a country that has a long border with her territory. The influence of Britain and Russia in Iran had soared to the extent that almost all political affairs of Iran had to be authorised by them.  

In 1872 the economic rivalry between Russia and Britain entered a new phase when a British subject Baron Paul Julius de Reuter, the founder of Reuter news agency, gained an astonishing concession. He received conclusive rights for a period of seventy years to exploit all minerals throughout Iran, to construct all railways, irrigation works, dams and canals, and to establish a bank. Lord Curzon stated that,
the Reuter concession was "the complete and extraordinary surrender of the entire industrial resources of a kingdom into foreign hands that has probably even been dreamed of, much less accomplished".15

In 1873 the Russians managed to secure the cancellation of the Reuter concession which they viewed as a threat to their own interests. Other concessions were granted, however, and were not cancelled because they did not seriously affected the Anglo-Russian balance. The tobacco concession was probably the most notorious one. In 1890 in exchange for an annual payment of 150,000 Pound to Nasser-ed-Din Shah, a British company, Regie, was granted an exclusive right over the production, sale and export of all Iranian tobacco for a period of fifty years. Tobacco was one of the most important domestic items in Iran’s trade and the concession affected directly an estimated 200,000 people who were engaged in the industry.16

Iran became too weak economically and Iranians did not care very much for the Shah who was incompetent, despotic and killed innocent people casually.17 The Shah could not even tolerate the publicity and popularity enjoyed by Amir Kabir and, in 1848, ordered his death, when three years of Amir Kabir’s premiership had elapsed, under the pretext that he was interfering in matters within the royal domain.18

Thereafter, Amir Kabir’s political and industrial policies were discontinued. Even those innovators and firms who had been rewarded by Amir Kabir, because of

15 Quoted in Issawi (ed), Ibid, p. 177.
17 Ashtiani, op. cit. note 13, p. 246.
18 "The execution of Amir Nizam [Amir Kabir] was indeed a calamity for it arrested the progress which had been so painfully achieved and as the near feature was to prove." Sykes P. M., A History of Persia, London, 1930, 3rd ed., vol. II, p. 360.
their technical creativity to compete eventually against imported goods, were punished. Consequently, the new industries which sprung up during Amir Kabir’s premiership were deprived of a suitable supportive environment to realise their potential for technical creativities and to utilise new technical knowledge. On the contrary, given the loss of the freedom to impose protective tariffs under the treaties, increasingly substantial quantities of consumer goods produced by the new factories in Western countries were imported into Iran. These freely imported goods frustrated the growth of indigenous industries and crafts, discouraged foreign and national technological investment and activities and adversely influenced the agricultural structure and products; and since most local firms could not compete with imported goods, they went bankrupt.

As a result, for the first time, Iran’s economy registered a deficit in foreign trade. Having discouraged the growth of accumulation of capital for local private industrial production, the traditional feudalistic relations with Western firms remained strong. That in turn, perpetuated and institutionalised the backwardness of Iran’s economy and assisted the continuation of despotism in Iran. This period of Iran’s political economic history is usually labelled as the "semi-colonial" era of Iran.


23 Turned into a battleground between Britain and Russia, the two powerful European countries, Iran was, in fact, even worse off in this respect than countries which were subject to the imperialism of a single power. In this regard Moon stated: "Persia was more unfortunate than countries which fell wholly under the imperialist domination of one power. In Egypt, or Tunis, imperialist meant at least orderly, efficient government, and the building of railways and rapid economic development of natural resources. Persia, on the other hand, was torn between two powers, neither of which would permit the other a free hand. ... As a result, Persia today has 350 miles of railways, as compared with Egypt’s 3,040, Algeria’s 2,221, Tunis’s 1,260. And Persia’s commerce is likewise far less than it would have been, had there been but one dominating power."

The above brief description of the prewar situation in Iran indicates that during the industrial revolution in 19th century Europe, Iran's own development and industrialisation, as a sample of developing countries, was virtually stamped out by foreign powers and incompetent and despotic Iranian monarchs. Such political and economic instability destroyed any hope of a secure and desirable environment for the flourishing of indigenous technological creativity and investment. During this period although foreign enterprises were engaged extensively in trading activities within Iran they did not set up new manufacturing industries inside the country.

In addition to the economic, industrial and social effects of the interaction between the dependent and despotic monarchs and foreign countries in Iran, the future political leadership of the country was affected seriously as well. Since then those Iranian regimes would be supported actively by foreign countries which allowed trade concessions, a precedent later followed by the United States in its relationship with the Pahlavi dynasty.

The Bolshevik revolution in Russia diminished her intervention in Iran. At the same time during the latter years of Qajar rule, the constitutional revolution (1905-1911) in Iran provided a unique opportunity for Iranians to show their opposition to the incompetent rulers of their country. An outcome of this uprising was a written Constitution which brought about fundamental changes in Iran. The legislative, judicial, and executive powers were separated. The Constitution limited the power of the King and empowered the (Majlis), the Iranian Parliament, to have the final say in the determination of all laws, decrees, treaties, budgets, monopolies and concessions. An equally important achievement of the Constitution was to guarantee the sanctity

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25 Keddie, op. cit., note 20, p. 47.

26 Ibid.

of private property, freedom of the press, and the right to free speech and assembly. Therefore, on paper at least, throughout the following years during which the Pahlavi regime was in power, the Iranian government took the form of a constitutional monarchy.

III. The Pahlavi Regime (1925 - 1979)

(a) Introduction

The political economic and industrial settings in this period were quite different from the time of the reign of the Qajars. In Iran itself, apart from the aforementioned developments, crude oil had been discovered in commercial quantities which generated large amounts of foreign exchange for the country. At the international level, the invention of the oil combustion engine had increased the demand for oil in the industrial parts of Europe and North America. The progress in production tools, resulting from the industrial revolution and the accumulation of capital by the colonising powers replaced the former colonial economic relations with the manufacture of saleable goods for export to the markets in the colonies. This in turn shaped a new economic structure in the colonised countries. Their internal developments and changes were dictated by the needs and developments of the colonial powers.

It led to a new world economic order in which the former colonial powers were at the centre and the former colonised countries pushed away to the periphery to serve the engines of development at the centre mainly with raw materials and roughly processed goods produced by cheap labour. As a result of the role ordained for the former colonised countries by the militarily powerful European countries, Iran could not seize the opportunity to emerge from the pre-capitalist stage take-off position in which it was placed to become a technologically advanced industrial power in its own right. The gradual integration of Iran into the international trade network, as it then was, led to the deterioration of Iran’s economic structure to become one similar to many former colonised countries which were the main producers of raw materials, agricultural and mineral products. Under this new international division of economic roles, gradually oil in Iran and some other countries, coffee in Brazil and Colombia, Zinc in Chile, copper in Ghana and Bolivia and sugar in Cuba became the main and major products of these countries for export to the growing industrialised countries of Europe.  

(b) Reza Shah (1925 - 1941)

It was during this period of economic change that, in 1921, Reza Khan, a former army colonel took power through a coup d'etat and called himself "Shah" of Iran. Reza Shah launched campaigns to modernise, industrialise and secularise the country. He pursued a vigourous industrialisation policy but, unfortunately, from the top downwards and under tight state control. His overall industrial policy was to create an import substitution manufacturing sector. In 1932, in order to protect domestic

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30 Malayeri M. H., Industry Section: A Research Regarding the Results of the First Plan, Research Centre of the Parliament, 1994, Teheran, p. 64. (in Persian) Such a process ended in many colonised countries becoming single producer economies with little or no diversification. This led to continuing dependence on the industrialised economies for goods and capital causing severe distortion in the local markets.
industries, the Foreign Trade Monopoly Law\textsuperscript{31} was passed. The import and export of goods became a monopoly of the government which assigned its rights to private enterprises through special licences.\textsuperscript{32} The industrialisation programmes of Reza Shah were driven by his obsession to establish more and more factories and his conviction that state-owned factories could perform better than private ones. Big factories were preferred to small factories and capital intensive means of production were held to be better for the economy than labour intensive methods of production.\textsuperscript{33}

The major financial source for the economic and industrial development came from export of crude oil.\textsuperscript{34} As the government became the supreme economic manager of the country, the private sector’s contribution to the industrialisation of Iran steadily declined and became insignificant. Paradoxically, the first Iranian industrial property legislation to protect inventions and trade marks translated from the French law of 1884\textsuperscript{35} was passed during this period. Despite the poor infrastructure and weak technological, educational and absorptive capabilities of the country, machinery and equipment for over a hundred factories had been imported by Iran by the end of the thirties. These state enterprises were supposed to produce enough consumer goods and to bring about rapid industrialisation. None of these objectives was achieved due to a shortage of technical personnel, key raw materials and spare parts and a general lack of managerial skills.\textsuperscript{36}

\textsuperscript{31} Foreign Trade Monopoly Law of Iran, 1932, reprinted in the Code of Law of 1932, pp. 79-89. This law was amended in 1941.

\textsuperscript{32} Ibid, Article 3.


\textsuperscript{34} It is noteworthy to mention here that, the oil revenue in Iran, unfortunately, has been used in a way that invariably acted against the establishment of a solid indigenous agricultural and industrial base. For further reading see Karshenas M., Oil, State, and Industrialization in Iran, Cambridge, 1990.


\textsuperscript{36} Bharier, op. cit., note 33, p. 87. It is noteworthy to mention that Iran was occupied by the allied forces in September 1941. Consequently, because spare parts were not imported many factories could not continue and went bankrupt.
(c) Mohammed Reza Shah (1941-1978)

When Reza Shah was abducted by the allies after the second world war, his son came to power. Mohammad Reza Shah continued his father's policies regarding modernisation, industrialisation and secularisation of Iran. Several points can be highlighted from the industrial development of Iran in the post-war era.

Iranian oil was exported by the Anglo-Iranian Oil Company (AIOC) until 1951. Since the oil revenues paid to Iran were small, Mohammad Mossadegh, the new Majlis-appointed premier, in an effort to make the system more equitable, nationalised the Iranian oil industry. Thus, unlike most developing countries, Iran did not have to face foreign currency problems because of her increased oil revenues. Unfortunately, the industrialisation of Iran relied heavily and exclusively upon oil revenues. At that time, the most important concern for the Iranian government was the proper allocation of its foreign exchange resources to the financing of development projects of high economic priority. Accordingly, a central planning organisation was established with the objective of channelling the revenues derived from oil into projects and programmes for economic development.

37 For instance between 1945 and 1950 Iran received £90 million, while the total net profit of the Anglo-Iranian Oil Company was £250 million (after deductions for royalties, depreciation, British taxes, etc.). See Keddie, op. cit., note 20, p. 133.

38 The oil revenues rose from $817 million in 1968 to $2.5 billion in 1972 and $5.6 billion in 1973 and $22 billion in 1974, see Karshenas, op. cit., note 34.

During this period, an artificial political stability was created in the country and five development plans were adopted. In pursuit of the overriding objective of a so-called "big push" industrialisation, the process of Import Substitution Industrialisation (ISI) policy was formally adopted and applied vigorously for the entire third, fourth and fifth plan periods. This entailed the imposition of high import tariffs, import controls, the extension of fiscal and financial incentives (tax exemption and subsidies) to local manufacturers and the introduction of industrial licensing regulations to create a competition-free environment for the local industries.

(i) Industrial Licensing

During this period, for the encouragement of entrepreneurial activities within the country, the government launched a programme to grant industrial licences. In doing so, private financial institutions, particularly the Industrial and Mining Development Bank of Iran (IMDBI) which was established in 1959, provided funds and other financial services to local firms. All industrial projects proposed by both state-owned and private agencies in order to receive financial support from the government were subjected to two appraisals. The IMDBI first appraised the projects based on their financial and commercial viability and then the Ministry of Economy used its

40 As Professor Pesaran also stated, "political stability during this period was brought about not through increased participation, reconciliation, and political tolerance but by the harassment, imprisonment, and torture of political opponents of the regime." Pesaran, M. H., The System of Dependent Capitalism in Pre- and Post- Revolutionary Iran, 14 Int'l J. Mid. E. Stud., 1982, pp. 501-522, at p. 505.

41 The first Seven-Year Plan (1949-1956) and the second Plan (1955-1962) centred mainly on the building of Iran's infrastructure. The third (1963-1967), fourth (1968-1972) and fifth (1973-1978) plans were directed more toward rapid, so called "big push", industrialisation.

42 The Third Development Plan, clearly expressed the Government industrial policy vis-a-vis the protection and encouragement of local manufacturing as follows: (a) Protection of the domestic industry by banning the imports of goods similar to those being manufactured in Iran; (b) Exemption from custom duties for machinery, certain spare parts and raw materials destined for Iranian factories; (c) Tax holiday (d) The granting of loans to and equity participation in industrial firms. The Iran’s Plan Organisation, Third Development Plan, Final Report, Teheran 1970, p. 52.
licensing powers to study the social costs and benefits of the venture before granting an industrial license to permit it to go ahead with the project. The license was not originally a legal requirement. But it was necessary to take advantage of various incentives offered by the government such as protective measures against competing foreign goods, tax and tariff exemptions, import permits and subsidised loans.

It is submitted that such a licensing mechanism was a sound policy at that time for a developing country like Iran in order to have some say in the allocation and utilisation of her capital resources. It could be used also as a measurement to know how much foreign investment is required to be permitted. Furthermore, the licensing could be a controlling instrument as regards the different aspects of required technology, size, number, location and products of firms in all branches of industry. And finally, it could encourage inventive and innovative activities of those Iranian entrepreneurs who generally were in short supply.

Unfortunately, in practice, the aforementioned objectives were not pursued seriously in Iran. The IMDBI enjoyed a privileged position because of its connection with the government and the latter's reliance on IMDBI to assist in industrial planning matters and was able to obtain easily industrial licenses for certain enterprises, while other private companies had to go through long and uncertain procedures before they were approved for any industrial activity. This provided a situation in which those companies which had political connections and enjoyed "certain" privileges were granted industrial licenses for projects, particularly so-called "hot projects", which were potentially profitable. Sometimes, even those sources close to the Ministry of Economy and the IMDBI were not aware of the existence of a project until a licence had been allocated.43

From the legal point of view, although numerous regulations were provided concerning applications for an industrial license, the criteria for approval or disapproval, merits and demerits of a proposal were not clearly defined. In other

words, the regulations did not clearly define how one proposal would be judged better than another. The authorities, therefore, had undefined discretionary power to decide on the proposals. The situation can best be described as arbitrary and dictatorial when one considers that there was no higher legal or administrative authority for appeal against the decisions.

As a result, only a small group of the largest privately owned manufacturing firms were able to get industrial licenses from the government and qualified for access to financial aid from IMDBI. Thus, most of government funds including IMDBI funds were soaked up by certain enterprises. However, according to Dr Sadigh, who has studied the issue, some enterprises which were granted industrial licenses did not go into operation. In these cases, the license was obtained to pre-empt the field and thus to preclude competitive entry by others. This policy prevented the expansion of the entrepreneurial class. It ensured that Iranian industry was controlled by a small handful of favoured industrial elites who directly or indirectly had connections with the Pahlavi family. In 1978, this led to reliable entrepreneurs pulling out of the country with large sums of money to avoid the imminent political turmoil.

46 Ibid. See also Johnson G. C., High-Level Manpower in Iran: From Hidden Conflict to Crisis, New York, 1980, pp. 28-29.
Progress of Industrialisation Under the Pahlavi Regime

The results for Iran after seventy years of pursuit of a policy of industrialisation ostensibly modelled on the examples of European countries were very gloomy. Although during this period about 4800 large industrial units were established and notable progress was without doubt made in the manufacture of goods locally, albeit largely through use of extensive foreign resources, indigenous technological capabilities were scarcely developed and the country became more and more dependent on the outside world.

In a five-year period from 1973-1978 alone, about US $100 billion of the oil revenues was allocated to the import of a huge variety of consumer goods, plant and equipment, spare parts, key raw materials and technology. Available statistics indicate that expenditures on machinery and spare parts rose during this period from 57% to 86% of the total foreign expenditures. In a twenty-year period from 1962 to 1983 nearly $107 billion was paid for the import of capital and intermediate goods. From the evidence based on a study of 1,178 selected large firms, the Iran Bureau of Statistics in 1980 found that despite the major share of foreign expenditures on imports to service the large firms which were involved in the heavy industries

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and established through the Foreign Direct Investment and Foreign Licensing Agreements, those firms made little or no contribution to Iranian exports. By 1977, the total value of non-oil exports constituted only 2 per cent of Iranian exports.

Such inefficient industries consumed a large portion of the Iranian oil revenues. On the basis of another study, during the latter years of the seventies, the industrial sector in a period of 365 days could only generate foreign currency to the tune of 5 days of their expenditures. The balance was met out of foreign exchange earned by oil exports. In all, these figures show on the one hand the inadequacies of Iranian industries and on the other hand their heavy dependence on foreign technology and key raw materials. As Dr. Razzaqi has remarked, despite "being industrialised" over a seventy year period, the need of the country for foreign industrial outputs had been increasing continuously and the range of imported goods expanded from a few restricted items to thousands of items of goods and machineries.

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53 Katouzian, op. cit., note 47, p. 279.


55 Razzaghi E. Seven Decades, op. cit., note 47; for the same conclusion, see also, Parvin M., and Zamani A., Political Economy of Growth and Destruction: A Statistical Interpretation of the Iranian Case, Iranian Studies, 1979, pp. 43-77, p. 71. The causes of importation of manufacturing parts, components and machinery were lack of local production; inadequate local supply; low quality of local materials; and because of low productivity, local materials and parts were higher in cost than those imported; Rahnema, op. cit., note 52, Table 8, p. 307. See also Amirahmadi H., Revolution and Economic Transition: The Iranian Experience, 1990, Albany; State University of New York Press.
IV. The Revolution of 1979

The occurrence of the revolution of 1979, among other factors, was the result of an outcry against the mismanagement of the industrialisation of Iran which had ruined the agricultural sector and expanded assembling and dependent industries in the country. It was the aspiration of Iranians that the national wealth should be spent on building self-reliant industries rather than on assembling products out of foreign components. The main changes that took place in terms of economic and industrial policy of Iran after the Revolution may be stated briefly by reference to the country’s new constitution.  

(a) New Constitution

The new Constitution has attached a great deal of importance to the acquisition of technology as well as the elimination of monopolies in the country. The Constitution exhorts the Islamic Republic of Iran to strengthen the spirit of inquiry, investigation and innovation in all areas of science and technology by establishing research centres and encouraging researchers. The Republic is committed to attaining self-sufficiency in scientific, technological and industrial spheres. At the same time, it must eliminate all forms of monopolization and provide equal opportunity for all. The Constitutional commitment to these ideals is unique to Iran and underlines

57 The Constitution, Principle 3(4).
58 Ibid, Principle 13. (emphasis added)
59 Ibid., Principle 3(9).
60 Ibid., Principle 3(6).
the country's determined efforts to subscribe to the basic concepts that drive modern economies and become a partner in promoting world trade. However, the country has been slow in launching needed legal reforms to realise the economic goals set by the Constitution. This thesis is a small contribution to spur the government to reform the laws and institutions in areas with the strongest impact on the economy.

(b) Economic System

The new Constitution deals specifically with economic and financial affairs and covers, inter alia, the subject of private and public ownership, and the country's economic system. The Constitution expressly recognises personal property and private ownership: "everyone is the owner of the fruits of his legitimate business and labour..... and private ownership, legitimately acquired, is to be respected."\(^{61}\)

The Constitution describes the economic system of the country as consisting of three sectors: state, cooperative, and private. The economic system is to be based on systematic and sound planning.\(^{65}\) Ownership in each of these three sectors is protected by the laws of the Republic, in so far as the ownership does not go beyond the bounds of Islamic law, contributes to the economic growth and progress

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61 Ibid., Principles 46 and 47.

62 The state sector is to include all large-scale and mother industries, foreign trade, major minerals, banking, insurance, power generation, dams and large-scale irrigation networks, radio and television, post, telegraph and telephone services, aviation, shipping, roads, railways and the like which will be publicly owned and administered by the State. Ibid., Principle 44.

63 The cooperative sector is to include cooperative companies and enterprises concerned with production and distribution, in urban and rural areas, in accordance with Islamic criteria. Ibid.

64 The private sector consists of those activities concerned with agriculture, animal husbandry, industry, trade, and services that supplement the economic activities of the government and cooperative sectors. Ibid.

65 Ibid.
of the country, and does not harm society. The precise scope of each of these sectors was to have been defined and the regulations and conditions governing their operation were supposed to have been covered by Acts of the Parliament.

To a large extent, the combination of the state, cooperative and private roles, in the economic system of Iran, reflects the widely held belief that the development and prosperity of Iran cannot be obtained through the current economic systems of capitalism and socialism. It is believed that the government should not become a "major absolute employer" and there should also not be a "concentration or circulation of wealth in the hands of few individuals or groups." At the same time the private sector should not continue the unhealthy pre-revolutionary trade and technological links with Western industrialised countries. Accordingly, in contrast with the Shah regime, the supervision of economic affairs by the post-revolutionary government has increased particularly in the areas of banking, insurance, foreign trade, and major industries.

It should be noted, however, that it was the interference in the private sector in the name of the state by the Shah and his friends and relatives and the enormous corruption which involved foreign nationals and enterprises that actually led to the discrediting of the private capitalist system in Iran. The Shah's government enacted and implemented laws which gave the government absolute control of the manufacturing industries. Unfortunately, this is being continued to this day under the new constitution except that different and, hopefully, safe hands are at the helm of the government today.

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66 Ibid.
67 Ibid.
68 Ibid., Principle 43 (2).
69 Ibid., Principle 43 (2).
V. Economic and Industrial Policy After the Revolution

A radical transformation of the Iranian industry in general and the private industrial sector in particular took place in the wake of the revolution of 1979. The Iranian experience during the aftermath of the revolution can be divided into two distinct era: first, the decade from 1979 to 1988; second from 1988 to date.

(a) First Experience

The period runs from the occurrence of the revolution to the cease fire with Iraq in 1988. The Iraq war forced the government to intervene extensively in the manufacturing and distribution sectors and there was lack of confidence generally in the free market economic principles of the Western European countries and the US. State intervention in the economy also had ideological support which called for a strong government to organise economic activities in order to bring about social justice and equality which did not exist under the Shah’s rule.70

Soon after the revolution, the protection and development of local industries gathered momentum. It was realised that Iranian industries were plunging into a crisis brought about by the disruption of management-labour relations and disputes over ownership and title and disruption of supplies of raw materials and markets for the manufactured products. The new government did not have much sympathy for the plights of these industries involved which relied on foreign suppliers of raw materials and technology. The government was of the view that the industries were "created and

70 For example see, Taliqani M., Islam and Ownership, Teheran, second ed., 1983. (in Persian)
based on a type of an industry and economy dependent on the world plunderer capitalism.\textsuperscript{71}

In order to save the economy of the country, the new government took "drastic measures in the direction of revitalising, proper management and development of the Iranian industries."\textsuperscript{72} The result was the nationalisation of all interests in steel, copper, aluminum, shipbuilding, aircraft and car manufacture, other heavy industries and interests.\textsuperscript{73} Consequently, almost 95 per cent of priority heavy industries and 70 per cent of all industries came under control of the government. This expanded significantly the public sector. By 1982, there were about 1,000 publicly owned and managed industrial units, excluding those in the oil sector and representing 87 per cent of the all manufacturing units with more than 500 employees.\textsuperscript{74} It was also during this period that although the government did not succeed in nationalising foreign trade,\textsuperscript{75} the bulk of international trade in the country was conducted by government departments and state-owned corporations.

The outcome of the increasing Government intervention in the country's industrial development was contrary to expectations. In fact, this period is now remembered as a "bad event" for Iranian industrialisation and economic development. A former Iranian Minister of Heavy Industries described the situation as follows:

"The capitalist system is against Islamic principles and it should not dominate the country. Therefore, large capital firms (in Iran) should be removed from the hands of capitalists. For this reason a law which ensures the protection

\textsuperscript{71} See the introduction of \textbf{Protection and Development of Iranian Industries Act}, 1979, \textit{Iranian Official Gazette}, No. 10031. (in Persian)

\textsuperscript{72} Ibid.

\textsuperscript{73} Ibid.


\textsuperscript{75} It may be recalled that according to Principle 96 of the Constitutional law of Iran, the Guardian Council has the power to veto all legislation in violation of Islamic laws. In May 1982 the Guardian Council repealed the foreign trade nationalisation law, calling it "non-Islamic".
and development of industries was enacted by the Revolutionary Council.... As a result of the implementation of this law, bourgeois and industrial capitalism, which was shaped in Iran since 1961 and were completely dependent on the Pahlavi regime and foreign enterprises, were destroyed. This created a perception that large capitalism will not exist in the country any longer. However, this turned out to be a myth. Although the manufacturing firms and units were confiscated and nationalised, commercial and intermediate capitalism not only remained, indeed, it continued to strengthened day by day. This had negative effects on our industries. The capitalist system was destroyed, but industrial bourgeois was merely replaced by commercial dealers and middlemen."\(^{76}\)

(b) **Second Experience**

The second experience runs from the end of the eight-year war between Iraq and Iran and the presidency of Hashemi Rafsanjani in 1989. The new government recognised the new situation of the country and the fact of a real world out there and launched a different economic policy within the framework of the first Five-Year Development Plan (1989-1994) which introduced a package of bold pro-market reforms. The government was required:

(i) to reconstruct and to renovate productive capacity, basic industries, infrastructure and population centres that had been damaged during the Iran-Iraq war;

(ii) to develop the quality and quantity of the general education with emphasis on science and technology and requirements of the young generation;

\(^{76}\) Behzade Nabavi, January 1995, Teheran, several Newspapers.
(iii) to accelerate economic growth in order to increase per capita income and create productive occupations and reduce economic dependency, with emphasis on self sufficiency in agriculture and strategic goods, and controlled inflation;

(iv) to improve the organisation and management of the country's executive and judiciary;

(v) to make efforts in the direction of creating legal security, execution of justice and protection of legitimate individual and social freedoms.

(vi) to establish a technology development centre for the planning, monitoring and supporting of technological development activities.\textsuperscript{77}

In order to achieve the above objectives, the government attempted to diminish state intervention in production and distribution; to revive the private sector by privatization of State firms; to expand foreign trade by deregulation, to attract foreign capital and to improve the economic monitoring system.

Although during this period the country witnessed the implementation of a massive program of construction of basic infrastructure and fundamental changes in economic policy, the legal institutions for acquisition, development and diffusion of foreign technology and for a sustainable development remained untouched yet. Neither the Foreign Investment Law of 1955\textsuperscript{78} nor the Industrial Property Law of 1931 has been amended and improved to fit the new domestic and international economic and technological scenario. The Iranian patent office has also remained in a deplorable situation and far from the real needs of industry.\textsuperscript{79}

\textsuperscript{77} Organization of Planning and Budget, \textit{First Five Year Development Plan}, (1989-1994), First Chapter, Teheran. Emphasis is mine.

\textsuperscript{78} For more details about the Iranian foreign investment law and its merits and demerits regarding transfer and development of technology, see \textit{infra} Chapter Eight.

\textsuperscript{79} See \textit{infra}, Chapter Nine.
The Iranian authorities assigned to deal with the transfer and development of technology have recognised that an appropriate and strong legal framework is needed for the successful acquisition of foreign technology and development of local technology but little has been done towards establishing a law commission or other institution to introduce comprehensive legislation to achieve the stated objectives of the government. Despite the liberalisation of the economy, the dismantling of tariff barriers and highly possible membership of the World Trade Organization, the country still lacks any systematic and appropriate regulatory regime to control restrictive business practices which have adverse effects on economic development, including technological development of the country. So much has been said on paper only. So far little has been done in practice after the revolution to create the necessary legal framework for transfer and development of technology. This thesis presents concrete proposals for radical law reform and institutional changes in this regard and contributes to the implementation of the declared economic policy in Iran.

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80 Several Ministries, government and semi-government organizations in Iran are dealing with the industrial activities. Their uncoordinated and parallel acts and decisions, have been criticised by several reports. For instance see Supreme Research Institute for Planning and Development, Development of Iran and the Need for Management of Transfer of Technology, Tadbir Magazine, 1992, vol. 23, p. 36-41; Ravanbakhsh M., Industrial Structure of Iran, Periodical No.74, published by Ministry of Heavy Industries, 1990, p. 13-16. (in Persian)

81 Moatamedi, (the head of Science and Industrial Research Centre of Iran) Comprehensive Development of Technology, a paper submitted to Seminar on Development of Technology, Teheran, 1995. (in Persian); Interview in London by the author with Mr M. H., Sharifzadegan, the former economic advisor of the Iranian Government and a former deputy of Iran’s Planning and Budget Organization, September 17, 1994; see also, Mardookhi B., (a senior economic and industrial advisor of Iran’s Planning and Budget Organization) Industrialisation of Iran, Sci. & R. J. U. Sharif, No. 4, 1993, p. 28. (in Persian)

82 The Iranian government has formed a special committee to examine the membership of Iran to the World Trade Organization. The committee has supported the membership of Iran to the WTO, Resalat, Mehr 30 1774 (1995); see also International Etelaaat, London, No. 233, April 21, 1995, p. 1; see also infra, Chapter Four, note 144.
Chapter Two

THE CAUSES OF IRAN'S FAILURE TO ACQUIRE FOREIGN TECHNOLOGY

Few developing countries this century have found the path of technological and economic development an easy one. Yet, Iran's difficulties have been particularly acute for a country so blessed with natural resources. The above historical background briefly examined some political problems of industrialisation of Iran. It shows that during and after the industrial revolution in Europe, the country was not really independent. Although the country was governed by Iranian monarchs, they depended heavily on the support of foreign powers to remain in power. The despotism of the monarchs also contributed to prevent Iranians from developing their own potential. Foreign factors could be blamed for the lack of development of human capital, by far the most important key to self sufficiency and industrialisation. But, this is only a part of the truth. The following are some relevant causes for Iran's failure in building a satisfactory technological base and transfer and development of needed technology.

I. Economic Development Strategy and Transfer of Technology

During the Pahlavi regime, particularly since the early sixties, policies for import substitution constituted the core feature of industrialisation in Iran.¹

¹ It may be recalled that pursuant to the substitution industrialisation policy, locally manufactured goods are protected by import restrictions, high tariffs on finished goods and through a licensing system. At the same time, a wide range of incentives for local companies and their foreign partners to establish new industries and expand existing enterprises is provided. Moreover, many incentives such as tax holidays, loan capital on favourable terms and low import duties on plant and
Essentially, this policy consists of providing state aid to local industries, at times and very high costs, to produce goods which have been hitherto imported from the developed countries. The substitution industrialisation policy involves considerable government intervention and, as will be seen later in this chapter, was implemented in a way that was destined to result in the flooding of the domestic market with imported goods.

(a) Import Substitution Policy

Such a strategy, of course, is not an Iranian invention. Almost all countries have resorted to it as the "engine of development" in the early stages of their industrialisation. In the fifties, developing countries which were influenced by the economic analyses of some well known economists of that time, adopted the strategy of imports substitution as the only avenue of escape from the perpetual dependency on foreign technologies. In fact, it was believed that developing countries like Iran need to impose some kind of import restrictions to build their technological bases. The reasonable protection of local industries through a well defined plan of action was held to be an important condition for the enhancement of local technological capability.

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2 United Nations, Major Issues Arising from the Transfer of Technology to Developing Countries, 1975, paras. 56-70.

3 See Perbish, The Economic Development of Latin America and its Principal Problems, New York, U.N. 1950. He argued that the trade gap between the North and the South resulted from the importation of machinery and exportation of raw materials by developing countries. Perbish predicted that in the long run the terms of trade of raw materials compare to machineries would be reduced. See also, Myradel G., An International Economy, New York, 1958.

Imports substitution policy is commonly believed to have served well many developing countries, for example, Brazil, India, Argentina, Mexico and South Korea. Even in modern Europe, the protection of infant industries is considered as legitimate by the European Union Commission. But in the case of Iran, as indicated above, contrary to expectation, the same policy did not result in the construction of an industrial base in the country and import dependency continued. There was a perception that by the adoption of the imports substitution policy and setting up manufacturing facilities in the country its dependence on imported consumer goods could be gradually eliminated. But, in practice, local manufacturers themselves were dependent on foreign suppliers for key raw materials, machineries, technical know-how and even skilled labour.

(b) The Failure of the Import Substitution Policy

Available evidence and analysis of the failure of the import substitution policy in Iran rightly put the blame on the excessive protection of local companies. Undoubtedly, excessive protection against foreign competition and insufficient local competition, left little, if any, incentive for the protected firms to invest in research and development to improve their efficiencies and technological capabilities. In the absence of competitive products, import-substituting firms were not under any pressure to improve the quality of their products or offer competitive prices. They knew that their products could be sold easily in the local markets. According to Pesaran such a high level of protection through tariffs, low taxes, and generous investment schemes resulted "in making foreign firms and local wealthy industrial elites, who provide them with political and economic cover, the main beneficiaries of the import-substitution process. The fifty or more major industrialists associated with the Pahlavi family among them owned the bulk of the large-scale private sector industries and were the
ones who formed the dependent capitalist class which benefited most from the import substitution strategy.6

The profiteering by the Pahlavi family and its friends as a consequence of the import monopolies granted to them and the resultant widespread inefficiencies increased costs of imports to other legitimate enterprises and damaged any prospect of "forward" linkages with the rest of economy. Privileged foreign partners were encouraged to supply the required capital and intermediate goods of the protected industries owned by the Pahlavi family and domestic suppliers of similar goods were deprived from benefitting from the so-called "backward" linkages.6

Another important criticism of the import substitution policy of Iran lies in a widely held misperception of Iranian policy makers with regard to the nature of transfer of technology. Although the acquisition of required technology for manufacturing substitutes for imported goods should be at the core of the policy,7 surprisingly the role of technology was not emphasised during the implementation of that policy in Iran. It appears that the policy makers assumed that needed technology would be transferred into the country more or less automatically. Although some factors which constitute technological activities such as individual plant operation skills, equipment and information systems of research and development are transferable, it is not easy to transfer the full technological capability of one society to another. The full technological capability of a country can be fostered and accumulated only through its own efforts and within itself.

5 Pesaran, supra, Chapter One, note 40, p. 505; Johnson, supra, Chapter One, note 46, p. 29; see also Madani A., Strategies of Economic Development: a Comparative Study of Iran and South Korea, Teheran, 1988, pp. 30-37.

6 The ability of an industry to encourage creation and growth of other industries is called "Linkages Effects". "Backward Linkages" are created when an industry purchases other locally manufactured products -thus substituting for needed imports and thereby, stimulating the local producers of raw materials and components. "Forward Linkages" are made when an industry instead of exporting its products, supplies them as raw materials and components to local manufacturers. These linkages can provide an effective growth in national economy. See Farhang M., Encyclopedia of Economics Sciences, Teheran, 1972, p. 690; see also Pesaran, Ibid; Johnson, Ibid, p. 20.

7 UNIDO, Guidelines for Industrial Planning in Developing Countries: Basic Principles and Practices, 1984, p. 42.
In other words, an essential prerequisite to successful implementation of import substitution policies is the development of a local capability to use, absorb and adapt foreign technology. There is little doubt that, for some industries, having the capacity to operate the necessary machinery and equipment is sufficient for producing various goods. However, given the increasing complexity of designing and manufacturing processes of products, specialised knowledge and techniques are necessary. As Schumpeter says "development does not start with goods, it starts with people and their education, organisation and discipline."

Admittedly, an import substitution policy is pursued for the invaluable opportunity it offers to "learn by doing". But as noted earlier, import substitution in Iran with no focus on the development of local technology led to the local companies undertaking only the final processing of the goods which required low local content and minimum know-how. The over-protection of local companies in Iran and the failure to provide incentives to ensure the acquisition of foreign technology were serious obstacles to the industrialisation of Iran.

There were insufficient skilled personnel to utilise the imported advanced machinery and equipment. Most importantly, there was the absence of a scientific and research-oriented environment to serve the interests and motives of the scientific community and entrepreneurs. In such circumstances, factories, machineries and advanced technologies could not do much. In fact, some analysts believe that the basic cause of underdevelopment and poverty in developing countries is not a scarcity of capital, rather the scarcity of ideas, initiative and management skills.

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9 For a thorough study regarding the problem of skilled personnel in Iran, see Johnson, op. cit., note 5.

To fill this gap and to reach rapidly a satisfactory degree of industrialisation, government policy makers relied extensively on foreign companies to supply the required skilled labour, managerial talent, and marketing skills. The heavy reliance on foreign manpower undoubtedly diminished the ripple effects on the local economy and the opportunities to forge linkages with local industries with the resources to service the foreign investor were missed. The application of this policy of dependence on foreign technical assistance and managers can be disrupted by upheavals, in the local social and political scene, which isolates the economy from its major suppliers. This is what happened in Iran after the 1979 revolution.

II. Lack of Technological Planning and Policies

Newly industrialising countries generally include a plan for the development of technology as an integral part of their national economic development plans. Technology planning focuses on the industrial sector while not, however, losing sight of its links with the other sectors. It seeks to transform progressively all of a country’s socio-economic structures by introducing and adapting modern industrial production techniques. Through such an action plan, technological needs are identified, the best way to satisfy them is determined and proper adaptation of imported technology is ensured.


12 National technology plans should inter alia:
(i) identify sectors of critical importance to the country and define technological policy objectives;
(ii) coordinate national action in relevant areas of technology development and transfer;
(iii) define the relationship between technology imports and indigenous development of technology, sector by sector;
(iv) establish and strengthen links and feedback mechanisms between policy makers, planners, researchers and technologists and users of technology, especially in the area of production;
(v) formulate programmes concentrated on the generation research, development and adaptation of technologies, particularly in areas of critical importance for the economic and social
However, during the Pahlavi regime, Iran did not have a specific technology policy or plan. While the national development plans were impressive in certain aspects, they did not often give adequate attention to the acquisition and development of needed technology. What was declared in the national development plans were financial estimates and the quantitative requirements of labour, skilled manpower, raw material and machinery needed to implement the projects in the development plan. Although project implementation entailed the importation of foreign technology, little attention was paid to a clear policy and the preparation of a detailed plan of action for unpackaging imported technology, adapting it to local circumstances, building of indigenous technological capabilities and generating local technology and marketing the transfer of technology as an integral part of the national development plans. The massive importation of factories, machineries and advanced technologies minimised the use of local labour and did not do much towards development of local capabilities. Such a policy increased the technological dependence of Iran’s industry on foreign sources. Surprisingly, the appraisals of industrial projects in Iran were conducted without regard to the transfer of technology aspects of the projects. 

The situation looks worse when one considers that the planning process in Iran left a large part of the decision making concerning the choice of technology and the source of technology, including domestic and foreign sources, to the executive ministries. Faced with the alternative of using domestic technology or importing foreign technology, decisions favoured largely the latter. On the other hand, motivated by political interests, in addition to the coordination, supervision and evaluation of the

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13 Sadigh, supra, Chapter One, note 43, pp. 130-143.

14 It should be noted that although the Plan and Budget Organization was to be the most powerful and authoritative body of the planning network and responsible for the execution of development projects. Its authority was weakened over time and eventually the responsibility for the execution of industrial and development projects was transferred to different ministries and government institutions. For the political environment of economic planning in Iran, see Razavi H., and Vakil F., The Political Environment of Economic Planning in Iran, 1971-1983: From Monarchy to Islamic Republic, London, 1984, particularly pp. 37-50.
development and industrial projects, the technical appraisal of the projects which were the responsibility of the Planning and Budget Organization became a virtual formality as well.\textsuperscript{15}

\section*{III. Lack of Promotion and Encouragement of Technological Innovation}

Local technological innovations play a central role in the success of industrial development of a country.\textsuperscript{16} In fact, one of the features of Iran has been her inability to provide the circumstances in which her national innovative and productive capabilities can take root and flourish and lead to the building of new industrial and commercial enterprises to compete in the world markets. Unfortunately, in Iran importance was attached to the accomplishment of physical and tangible components of technology and industrial development.

Establishment of industrial complexes, creation of mechanised agricultural units, building large dams and construction of super highways were emphasised\textsuperscript{17} and regarded as great achievements even though they were designed, executed and operated and maintained almost exclusively by foreign companies. The technology needed to replicate these projects remained in foreign hands. They were essentially political achievements for politicians to show the people something tangible. Even though some of the projects were studied and were of high economic priority they were accomplished at high cost because of the need to import all technology needed to execute the projects. The fundamental error in pursuing a program of high

\begin{itemize}
\item \textsuperscript{15} Ibid, pp. 42-47.
\item \textsuperscript{17} See Razavi and Vakil, op. cit., note 14, p. 44.
\end{itemize}
technological projects was that benefits were short lived because of lack of local skills to operate and maintain the projects after the departure of the foreign technicians and managers. In sum, the development, if any, was not sustainable and local technology was not there to improve on the earlier projects. It is submitted that, it is sustainable industrial development that transforms society into a society teeming with fertile, creative and inventive activities.

(a) Technological Level of Iranian Industries

To ascertain the technological level of a country the two important elements of technology namely, hardware comprising machines, equipment and physical infrastructure and software comprising technical knowledge, experience, training, organisation and management should be taken into account. Based on a model introduced by the ESCAP (Economic and Social Commission for Asia and the Pacific)\textsuperscript{18}, the technological level of industries is estimated through the total average number of the indicators that can be attributed to machinery and equipment, organisation and management, and know-how and technical and mechanical skills. In an ideal position, according to ESCAP model, the highest technological level of each indicator mentioned above is 100. The average of them, thus, is 100. In practice, while there is no country in the world that score the ideal level (100), many countries are at a very high level in some parts of the technological level.

These indicators have also been estimated for Iran. The heavy industry averaged score is 26 out of 100: 58 for machineries and instruments; 31.5 for skills; 22 for technical information; and 30.5 for organisation and management. These scores

for the industries other than the heavy industry of the country generally are respectively, between 36 and 41; 40 and 45; 36 and 39; 31 and 36 out of 100.\textsuperscript{19}

A graphical representation of Iran's technological position is given in Figures 1 and 2 below which has been prepared applying the ESCAP model and criteria to the Iranian synthetic fibre (Fig. 1) and paper industries (Fig. 2) and compared to other countries.\textsuperscript{20} The above mentioned data show that, in so far as the hardware elements of technology are concerned, the Iranian industries enjoy a strong position. By contrast, Iran is at a lower level in so far as the software elements are concerned though software elements represent crucial components of technology in the contemporary world and are key indicators of growth of technical knowledge, productivity and optimum use of the hardware elements.

In the absence of a coherent national policy on science and technology in the country, no meaningful link can be made between research and industrial development in Iran. Very little research is carried out in the country. There was some over-emphasis on the role of science and scientific advancement compared to the utilisation of technology and technological development in the country. By such an over-emphasis on the academic excellence of science, the country has more often than not insulated science and scientists from the very pragmatic requirements of socio-economic and technological progress of Iran. It is observed that very few qualified scientists indeed made their experience directly bear upon adapting, upgrading and further developing imported technology. Evidence of this shortcoming is the small number of patents registered by Iranian nationals, whether they be individuals, institutions or corporations.\textsuperscript{21} Scientific discoveries are neither patentable nor can they be directly used in the production process. Indeed technological innovation has yet to be indigenised in Iran.

\textsuperscript{19} Institute of Commercial Studies and Research, \textit{Iran's Economy}, 1991, Teheran. (in Persian)
\textsuperscript{20} Supreme Research Institute of Planning and Development, 1993, Teheran, (in Persian).
\textsuperscript{21} For more details see infra, Chapter Nine.
Fig (1): Synthetic Fiber Industry

Fig (2): Paper Industry

Key
H: Human Ware
O: Organisation Ware
I: Information Ware
T: Technology Ware
IV. Inadequate Legal Framework for the Transfer, Development and Diffusion of Technology

(a) Transfer of Technology Law

Recent research indicates that there is nothing automatic about the acquisition of technological capability.\(^{22}\) It is the recipient country’s responsibility to develop its technological capabilities and this development process needs substantial regulatory effort.\(^{23}\) In this regard, unlike Argentina, Brazil, Korea, India, Japan, and Mexico,\(^{24}\) Iran did not establish a strong legal framework to deal specifically with the whole range of complex questions of the transfer, development, adaptation and diffusion of technology.\(^{25}\)


\(^{25}\) The objectives of technology transfer regulations may be summarized as follows:

- Improvement of the quality and local assimilation of imported technology;
- Protection of local innovation and technology;
- Increase of the bargaining power of local purchasers of technology;
- Increase of the information available to local parties as to possible sources of technology;
- Improvement of the balance of payments;
- Control of foreign exchange remittances;
- Prevention of tax avoidance;
- Limitation of industrial property protection for foreign parties;
- Control over the nature of imported technology;
- Regulation of foreign investment made by means of intangible assets;
- Prevention of package licensing;
This has created a situation in Iran in which several departments of government, or institutions deal with the transfer and development of technology in a parallel, uncoordinated and unsatisfactory manner. As will be analyzed later, even those laws that exist were enforced in an uncoordinated and haphazard manner. This is chiefly because of the lack of strong institutions with the powers, procedures and expertise to monitor market activities including the flow of technology and the effective transfer of technology to the country, and to take legal and other action as necessary. 26

The upshot of the weak legal frameworks and institutions in Iran, among other things, has been the loss of valuable practical knowledge and experience, resulting from the huge number of technology transfer contracts with Iranian firms during the last seventy years, which have either been scattered among different authorities and even officers, or are missing in toto. By contrast, the National Office of Industrial Property of Brazil by scrutinising more than 30,000 technology transfer contracts between 1974-1989, has accumulated a vast amount of knowledge and experience. 27 Such knowledge and experience is used to assess and improve the legal instruments and institutions to facilitate the transfer and development of technology in the country.

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A number of developing nations through such national regulatory agencies have been able to bring down the cost of technology transferred via transnational corporation.\textsuperscript{28}

It is important to note that technology transfer transactions are different from other commercial contracts. Their subject matters are intangible products, they are often based on long cooperation and valuable industrial property rights are exchanged. Therefore, an inadequate legal framework coupled with government control may deter the flow of foreign technology into the country or result in an inequitable relationship between private and public interests.

\textbf{(b) \ Industrial Property Law}

Laws and regulations on protection of inventions, innovations and proprietary know-how are among those measures that, if properly designed and implemented, can promote and encourage technological innovation.\textsuperscript{29} As will be considered later,\textsuperscript{30} Iran's patent law is deficient in many respects. The patent law of Iran has not encouraged and promoted technological innovation. The law, as it exists, does not help the achievement of the industrial development goals of the country. The existing Iranian law has done all the opposite to what intellectual property laws are supposed to do. It served as an instrument to enable large foreign companies to systematically

\begin{itemize}
\item \textsuperscript{28} Miguel S., \textit{Technology Transfer Through Transnational Corporations}, the CTC reporter, 1981, p. 20.
\item \textsuperscript{29} Other instruments for promotion and encouragement of technological innovations are: encouragement of private research and development through financial subsidies and tax exemption; establishment of public scientific and research and development centres; provision of technical assistance and dissemination of scientific information to local firms; laws and regulations on import of technology; industrial policy; export promotion; and technical education, UNCTAD, \textit{Policies and Instruments for the Promotion and Encouragement of Technological Innovation}, U.N. Doc. TD/B/C.6, 1984, p. 123.
\item \textsuperscript{30} See infra, Chapter Nine.
\end{itemize}
overprice their products and to impose a large number of restrictive practices on their local counterparts. The specific weakness of Iranian law is that it was not conceived as an economic instrument for the creation of incentives to national inventiveness, transfer and development of technology and foreign investment for the realization of national technology development objectives. The patent administrations have remained apart from institutions directly involved in formulating and implementing national development programs. It will be shown later that, if the Iranian patent system is to assist in encouraging national inventiveness and strengthen in general the technological and scientific infrastructure of the country, it must be properly designed and be integrated with all other instrumentalities of economic and technological development. The central concern of the Iranian patent system must, therefore, be of internalising inventions already made and encouraging innovations rather than merely protecting foreigners’ exclusive rights. Only then, would it be possible to ensure that the operation of the patent system answers not only the pressing needs of Iran, but succeeds at the same time in encouraging industrial investment and making effective use of the scarce skilled manpower available for development.

Issues surrounding the transfer of knowledge across national borders have provoked intense discussions since the Second World War but Iran was not active in addressing these issues. Yet, in 1957 Iran without a thorough examination by the experts ratified the Paris Convention because, at that time, there were considerable pressure exerted by industrialised countries to recognise their intellectual property

31 Salehkhoo in his study of the pharmaceutical industry in Iran uncovered substantial evidence of overpricing of foreign companies’ products, ranging up to more than ten times the free-market prices. Salehkhoo G., Commercialisation of Technology in Developing Countries: Transfer of Pharmaceutical Technology to Iran, unpublished Ph.D. thesis, Faculty of Political and Social Science of the New School for Social Research, (1974), Chapter 6. A study conducted by UNCTAD indicated similar situation in some other developing countries. See UNCTAD, Major Issues, op. cit., note 2, pp. 16-17.

32 Salehkhoo, Ibid; Rahnema, supra, Chapter One note 52, p. 303.

33 See Chapters Nine and Ten and Appendix Two.
rights or risk being portrayed as obstacle in international commerce.\textsuperscript{34} As will be discussed later, the Convention has had a constraining influence in Iran in that Iran has not been able to introduce in its patent legislation elements specifically aimed at supporting domestic inventors and geared to its unique needs as a large oil rich country with immense natural resources without the risk of acting in violation of some Convention provisions.\textsuperscript{35}

\textbf{(c) Restrictive Business Practices Law}

It took almost two decades in the fifties and sixties for developing countries to realise that the terms and conditions of transfer of technology transactions are key factors in the facilitation of the transfer process.\textsuperscript{36} To remedy that, Brazil, for instance, although she had anti-trust laws to combat restrictive agreements and anti-competitive practices of undertakings in her markets, enacted a transfer of technology law specifically to secure technology transfer on terms favourable to the realization of her domestic economic priorities. The transfer of technology law among other things was used to control restrictive practices in licensing agreements with foreign technology holders.\textsuperscript{37}

However, Iran did not show any concern for the terms and conditions of technology transfer agreements. She did not have in place any screening procedure to determine whether or not imported technologies took into account Iran’s existing indigenous endowments or not. In other words, foreign companies were free to enter into technology agreements with Iranian firms, both private and public, under


\textsuperscript{35} \textit{International Convention for the Protection of Industrial Property known as the Paris Convention}, of March 20, 1883, WIPO Pub. No. 201 (E), for details see \textit{infra} Chapter Four.

\textsuperscript{36} See \textit{infra}, Chapter Five.

\textsuperscript{37} Ibid.
whatever terms and conditions they chose. This liberal policy distorted the choice of products and techniques in favour of production of luxury consumer goods and capital intensive industries, and increased the country's reliance upon sophisticated foreign technology and know-how with little employment-creating effect. Furthermore, as will be considered in Chapter Seven, transnational companies aware of the absence of any legal control over restrictive business practice imposed several restrictive clauses in licensing agreements with their Iranian partners. Most of these restrictions are not allowed under the anti-monopoly or anti-trust laws in industrialised countries. Had it not been for the country's rapidly rising oil revenues, the effects of these mistakes would have been realised in time for the government to take appropriate measures.

In sum, the combination of weak institutions and inadequate laws to give a suitable shape to the structure of incentives for technological innovative activities of Iranian and non-Iranian firms in the country, and, at the same time to combat anti-competitive practices of transfer of technology agreements and arrangements presented a virtual barrier to the acquisition of foreign technology by Iranian enterprises.
SECTION II.
INTERFACING BETWEEN INTELLECTUAL PROPERTY LAWS, COMPETITION LAWS, TRANSFER OF TECHNOLOGY LAWS, GENERAL COMMERCIAL LAWS AND INTERNATIONAL LAW
Chapter Three

PATENT RIGHTS AND TRANSFER OF TECHNOLOGY

*The patent system....
added the fuel of interest to the fire of genius*

Abraham Lincoln 1859

In Chapter Two, the main reasons for the failure of Iran’s industrialisation policies were discussed. It was noted that one of the features of the now discredited policy was the absence of any deliberate strategy to promote and encourage local technological innovation. Part of the strategy should have been a reform of Iranian law to include a modern intellectual property law tailored to meet Iran’s special needs as an oil and resource rich nation. The needs of Iran dictate a delicate balance between the interests in developing a strong viable local technology base and the protection of the interests of foreign holders of intellectual property rights for the mutual benefit of Iran and the sources of foreign technology. Iranian laws and their enforcement would act as incentives to develop local talents and inventiveness as well as a vehicle for the transfer of technology which must be seen by the foreign holder of intellectual property rights as advantageous to his enterprise, truly, a tall order by any measure.
I. Introduction

The intellectual property laws of most developing countries are either a legacy of their colonial masters or have been inspired by and modelled on the recommendations of the United International Bureaux for the Protection of Intellectual property (BIRPI)¹ and World Intellectual Property Organisation (WIPO)² Patent Model Law for developing countries. The work of these international organisations themselves is based mainly on patent concepts, laws and practices of the developed countries of the West. Although they might have served well the market economies of the developed countries³, they do not necessarily benefit in all respects the developing countries which not only have dissimilar social, political and economic settings⁴ but are also several light years behind the developed countries in technological and industrial development.

Worse still is the fact that developing countries are locked into international legal regimes - Paris Convention and GATT - for protection of intellectual property rights which oblige the countries to observe certain standards even though those standards have adverse effects on their economic and technological development. Thus, the focus of this chapter is the examination of national intellectual property laws, particularly in respect of the role of patents in the transfer and development of technology to developing countries. In doing so, it is pertinent to present a brief historical survey of patent law.

² WIPO, Model Law for Developing Countries on Inventions, (Patents), 1979.
⁴ For instance, the patent law of Iran was copied from the French statute, but, as will be shown later, their consequences were dissimilar. See Chapter Nine.
The survey shows that industrialised countries themselves in their early years of technological development had fundamentally different objectives for patent grants from those that were adopted later. They used patent grants initially to induce foreign nationals with skills and special knowledge of working in certain materials and processes to come into their countries and establish various industries which were then protected by the grants. Once the industries were firmly entrenched, the pace of industrialisation picked up and local innovations were introduced. Further technological developments took place with advancements in the sciences and engineering and patents took the characteristics of valuable property to be protected per se. Patents were no longer needed to import skills and knowledge but were employed to protect local inventions and innovations. In other words, modern intellectual property laws did not materialise overnight but evolved over centuries to meet contemporary needs.

As will be seen in Section III of this thesis, developing countries have patterned their domestic patent systems on the more modern principles applied by the industrialised countries in designing their own systems. These principles are no longer linked to the acquisition of technology and achievement of industrialisation as their goal. The transfer of technology is no longer a matter of concern to the industrialised countries. The thesis will examine the contemporary justifications by the industrialised countries for the protection of patent grants and their consequences for developing countries. The examination will show that, although there are merits in the different contemporary justifications of patent protection, the most important one for the developing countries is still the promotion of transfer of technology and achievement of their primary domestic goal of industrialisation. The main concern of the patent system in developing countries must, therefore, be of internalising inventions already made and encouraging innovations rather than merely protecting foreigners’ monopoly rights.
II. National Patent Rules

(a) Historical Survey

The City-State of Venice is considered as the first State to conceive, in 1474, the basic features of contemporary patent laws. England passed its Statute of Monopolies on patents in 1623. Other industrialising countries enacted their patent laws after the industrial revolution between 1790 to 1870. Legislation to protect patents was introduced in the United States of America in 1790, France in 1791, the Netherlands in 1809, Austria in 1810, Russia in 1812, Sweden in 1819, Spain in 1826, Brazil in 1859, Italy in 1859, Argentina in 1864 and Canada in 1869. The original laws have since been revised. For example, the national patent law of 1791 of France has been revised several times, the last time was in 1992.5

A Patent is a legal right to a monopoly given to proprietors of inventions who provide adequate information on the specifications for the manufacture of a new product or introduction of a new process. Such monopoly rights were given to encourage inventors not only to present new technical ideas but also to transform them into goods or services. The origin of ideas was totally irrelevant; the idea might have originated in the mind of the applicant for a patent or could have been acquired abroad through travel or from published technical materials. In other words, the patentee himself may not have invented anything. The determining factor was whether or not the new product or process was known in the patent granting country at the

5 French Intellectual Property Code, Law No. 92-597, 1992. For the English version of the French law see WIPO, Industrial Property: Laws and Treaties, Geneva, July-August 1993. It is interesting to note that the Iranian patent law which was enacted in 1931 and based largely on the French patent law of 1844 has not been revised yet. The Iranian patent law will be considered in more detail in Chapter Nine. See also UNCTAD, The Role of the Patent System in the Transfer of Technology to Developing Countries, U.N. Doc. TD/B/AC.11/19/REV.1 1975, p. 32.
time of the grant. When the new industry was established within the country, further importation of the patented article into the country from other sources was prohibited.

The advantages of such a policy to industrial development were three fold: First, the patent granting country acquired, quickly and inexpensively, technology which had been understood but not applied in the country before to create a new industry. Second, by manufacturing the patented goods, the country moved towards self-sufficiency in those goods and third, local inventive potential found an outlet in the research and development that was necessary to improve a patented product or process to compete in the domestic and world markets.

England is a well known example of a nation with modern patent laws. According to Cunningham, while England imported fine and attractive manufactured goods from abroad, she exported surplus wool, corn, coal, hides, and tin. The main reason for this "unfavourable trade" was the lack of technical knowledge and skilled labour in England for the manufacture of such goods. Thus, the institution of the royal exclusive privileges for new inventions, the precursor of today's patent system, had two primary objectives, namely, to transform England's rural economy into a manufacturing economy, and reverse the direction of flow of manufactured goods. Accordingly, foreigners who had useful technology that was required in England were granted monopoly rights to exploit the rights within the realm. Since then manufacturing industries have flourished in England.

A privilege holder was expected to establish a new industrial enterprise to manufacture the patented goods and to teach the skills of the relevant art to the local firms. The point to be borne in mind here is that the new technology useful to the

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United Kingdom was protected regardless of its origin. As Fox pointed out, "a valid patent may be granted on a communication from abroad of a new manufacture, although the patentee himself may not have invented anything". Such a stress on the introduction of new manufacture into the realm, instead of emphasising inventive activities as such, clearly indicates that the patent system was initially used to facilitate the transfer of technology and establishment of new industries.

Such an industrial policy-based patent system was formally legislated for the first time in the United Kingdom in 1623. To prevent misuse of the exclusive rights granted by the Kings, the Statute of Monopolies was enacted. The Statute outlawed all monopoly privileges of that time. It states:

\[
... \text{all Monopolies, and Commissions, Grants, Licences, Charters and Letters Patents heretofore made or granted, or hereafter to be made or granted, to any person or persons, bodies politic or corporate whatsoever, of or for the sole buying, selling, making, working or using of anything within this realm ..., are altogether contrary to the law of this realm, and so are and shall be utterly void and of none effect.}\]

However, as a special exemption, the Statute excluded letters of patent. This exception was the forerunner of the patent system of the United Kingdom which has been the model for the patent systems of many industrial and developing countries. The Statute states:

\[
\text{Provided also and be declared and enacted that any declaration before mentioned shall not extend to any letters patents and grants of privileges for the term of fourteen years or under, hereafter to be...}
\]


10 Act Concerning Monopolies and Dispensations, op. cit., note 8, section 6, p. 701.
made, of the sole working or making of any manner of new manufactures, within the realm, to the true and first inventor and inventors of such manufactures, which others at the time of making such letters patents and grants shall not use, so as also they be not contrary to the law nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient.\(^{11}\)

Although the Statute kept silent regarding the establishment of a patent system, it required that in return for a patent grant the patentee should fulfil the following responsibilities:

Firstly, a new product had to be manufactured not just patented in the realm.\(^{12}\) Secondly, the patentee had to be "the true and first inventor". Hulme declared that "the true and first inventor was the true and first founder or institutor of a manufacture. Invention, i.e. the exercise of the inventive faculty, was not an essential qualification - institution of the manufacture, from whatever source derived, was the valid consideration of patent grant under the Statute".\(^{13}\) Put simply, the inventor in the patent documentation was not necessarily the inventor of the new goods and processing method himself. Thirdly, the patentee was prohibited from increasing prices that would not be in the interests of the state and would affect adversely its trade.\(^{14}\)

\(^{11}\) Ibid.


\(^{14}\) For the objectives of patent grants of industrialised countries in their years of technological development see UNCTAD, Historical Trends in Protection of Technology in Developed Countries and Their Relevance for Developing Countries, UNCTAD/ITP/TEC/18, 26 December 1990.
In this way, England successfully lured foreign technologies and manufactured locally those goods which used to be imported into its markets. The main objective of such a policy is what is known to day as the Import Substitution Industrialisation Strategy which made Great Britain "self-sufficient."

(b) The Emergence of Patent's Specification Doctrine

The monopoly rights which were granted in exchange for the actual working of inventions have undergone important changes. Consequent upon the multiplicity of inventions brought about by the industrial revolution, States began to require the registration of inventions. The reasons for such an important change were to prevent multiple grants for parallel inventions of the same product or process, make available technological knowledge of inventions to everybody, make public aware of protected property which should not be violated and provide a universal scientific encyclopedia.

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15 In England the arts of weaving, ship making, glassmaking, iron working, soap making, aluminum and saltpetre were stimulated by the grant of special privileges to foreign innovating craftsmen and enterprises. In the 1550s, the silk-making and glassware industries were transferred to France motivated by patents. Turquetti, an Italian subject, in return of collecting royalties throughout his life established silk-making industry in Lyons and employed 12000 personnel. For the history and the list of those industries that were introduced in England by aliens, see Hulme, op. cit., note 13, p. 281; Cunningham, The Growth of English Industry, op. cit., note 6; and Fox, op. cit., note 9.

16 This intention clearly was announced by Chancellor Morton to Parliament in the reign of Henry VII. He desired that "our people be set on work in arts and handicrafts; that our realm may subsist more of itself; that idleness be avoided, and the drawing out of our treasury for foreign manufacture stopped". Martin W., The English Patent System, London, 1913, p. 11; Beier F-K, and Straus J., The Patent System and its Information Function- Yesterday and Today, 8 IIC, 1977, pp. 387-406. p. 390; Fox, Ibid.

17 For instance see French Patent Act of 1971, Article 11 (1). From the patentees point of view, it had become very important for them to have some evidence to prove the novelty of their "manufacture" against possible future litigation. The registration of patent specifications, thus, became instrumental for them as well.
This new requirement was a turning point in the evolution of patent law. While under the old practice the test of novelty was based on the prior manufacture of the invention in the country, under the new practice the novelty test was to show that the invention had not been disclosed in any manner within the country. Given the significant role of patent specifications, patentees started to disclose as little as possible to protect their rights. Gradually, the emphasis shifted from the "actual working of patented inventions" to the disclosure of "new inventions". In this regard the leading case of Liardet v. Johnson\textsuperscript{18} may be cited. Lord Mansfield enumerated his principles for entitlement to a patent as follows:

\textit{The general questions on patents are: 1st. Whether the inventions were known and in use before the patent; 2nd. whether the specification is sufficient to enable others to make it up; the meaning of the specification is, that others may be taught to do the thing for which the patent is granted, and if the specification is false the patent is void, for after the term the public ought to have the benefit of the discovery. Hence the law requires as the price the patentee must pay to the public for his monopoly that he should, to the very best of his knowledge, give the fullest and most sufficient description of all the particulars on which the effect depends.}\textsuperscript{19}

Since then, as Professor Kingston noted, the grant of patents has been based more upon the disclosure of "new information" rather than actual manufacture.\textsuperscript{20} Patents changed from a monopoly right to undertake a new manufacture to "teaching" a novelty. In other words, the patents system was strongly inclined towards the protection of not just innovations to work inventions but the protection of the original

\textsuperscript{18} Liardet v. Johnson, 1 Y and C.C.C. 527, (1780).

\textsuperscript{19} For more details of the case see Hulme, op. cit., note 13, p. 284; see also Adamas & Averley, op. cit., note 12, p. 170.

specification of the invention which need not be worked if the holder so desired. Indeed, this important shift has made it easy for the "non-working" of patented inventions in both industrial and industrialising countries.

However, the departure was not accidental. Assisted by the early mandated industrial exploitations of new inventions, either by their inventors or introducers, Western countries attained a high level of industrialisation and economic self-sufficiency. Thereafter, they sought to extend the exploitation of their technologies outside their markets because there was a risk that their new technologies would be copied by other countries. The Paris Convention of 1883 reflects such a motive and has failed to solve the problem of "non-working" of patents. On the whole, as will be considered in more detail later, the Convention has failed to strike a proper balance between the interests of patentees and those of the developing countries.

As was shown in the case of Iran, during the evolution of patent law in the industrialised countries, developing countries were either colonised or semi-colonised by industrialised countries. Some did not exist as states. However, developing countries despite the widening economic and industrial gap between them and the industrialised developed countries, gave a special position to industrial property rights in their law. Partly because of the ambiguous stance taken by the United Nations in terms of role of patents in the transfer of technology, developing countries believed that a patent system modelled on the systems in the industrialised countries will attract foreign technology and promote their own development.

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21 Ibid.

22 Other factors such as the growing number of inventions, the complexity of new technologies, the emergence of transnational corporations at the international scene, and the international division of labour facilitated a switch from protection of innovations to protection of mere inventions.

23 International Convention for the Protection of Industrial Property of 1883 known as the Paris Convention, of March 20, 1883, WIPO Pub. No. 201 (E). The Paris Convention will be examined in the next chapter.

24 In 1964, an important U.N report had concluded that, "there is reason to believe that in spite of licence fees and royalties the underdeveloped countries derive net benefits from the transfer of the patented knowledge". The Role of the Patent System in the Transfer of Technology to Developing Countries: Report by the Secretary-General, U.N., Doc. E/3861/Rev.1, U.N., New York.
Almost all developing countries have now enacted intellectual property laws and most of them have joined the international arrangements for protection of intellectual property, such as Paris Convention of 1883 and the GATT which recently has extended its jurisdiction to the protection of trade-related aspects of intellectual property rights. Few developing countries have adapted their industrial property system to their own economic needs. Accordingly, while a tiny number of international patents belong to developing countries, their patent laws are taken advantage of by the industrialised countries to impose a considerable number of restrictive business practices in technology licensing agreements with developing countries under the umbrella of patent rights. At the same time, in most developing countries the privileges created by their patent laws have by and large failed to contribute either to stimulate inventions among their own nationals or to encourage rapid transfer, appropriate adaptation through assimilation and widespread diffusion of imported technologies.

III. Contemporary Justifications for Patent Protection

It can be seen from the short historical account of the patent system given above that the grant of monopolies for inventions was aimed at establishing industries within the country by exploiting ideas acquired from abroad. In other words, the early patent system had the exchange of technical information and the transfer of technology for compulsory working within the country as its primary objectives rather than the protection of inventive activities per se of local and foreign nationals. But, as mentioned, when the novelty of inventions was to be determined solely through their documented specifications, not by their practical application to an industrial product

York, 1964, para. 276 (emphasis added).

See Chapter Four.
or process itself, a gradual replacement of the requirement to work the "new information" by mere disclosure of "new information" took place. Various theories were advanced to justify this new and radical approach to patents.

(a) Natural Law Thesis

The philosophical argument that the creator of an intellectual work has a natural right to his efforts and ideas was supported by those who believed in the 17th and 18th centuries that rules of natural law should govern society. As regards patents, the inventor has an inherent right in the products of his mind (invention), and that the patent grant does no more than recognize this right. Put differently, the patent does not create a new legal right, but rather gives legal enforcement to an existing right inherent in the invention. Accordingly, this right is presented as a fundamental and natural right comparable to rights to physical property. From this standpoint, unauthorized appropriation of that "exclusive right" should be condemned as "intellectual theft".

Although the recognition of industrial property rights as natural rights and synonymous with title to private real and personal property underlay the patent legislation of most European countries at the end of the 19th century and was endorsed by the Paris Convention, it has been subjected to much criticism. It has been argued that the logical elements of the concept of property as applied to material things (occupation, possession, control, appropriation, restitution, etc.) are largely

Inapplicable to ideas not embodied in material things. In the same vein, the notion of inherent rights is hardly compatible with systems in which examination (novelty, inventiveness, etc.) precedes the patent grants as occur in most countries. Furthermore, the limited duration of patents, the exclusion of certain areas from patentability, and other limitations in the interest of the general public, like obligatory working and compulsory licensing, unveil its inconsistency with the concept of property.

Consequently, the emphasis today is often laid on the economic incentives that may be created by granting patents than on the support of the natural right theory. The Economic Council of Canada also by rejecting the natural right thesis contended that:

> If any inherent right exists, it is the right of industry to freely imitate competitors in satisfying the demands of the marketplace. Any justification of the patent system must be ultimately founded in its net social worth to society, balancing its costs and benefits.

(b) Incentive to Disclose New Knowledge

In economies where private enterprises dominate manufacturing, sufficient incentives should be provided for the generation and disclosure of new technical knowledge. It has been argued that this purpose is partially satisfied with the granting of patents in return for the disclosure of the new knowledge to the public. In this context, a

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patent can be viewed as a social contract between the community and the inventor. The government acting on behalf of the community, grants certain rights to the inventor in exchange for disclosure of the new technology.\textsuperscript{33} The grant of proprietary rights encourages inventors to disclose their inventions (instead of keeping them secret) and make it available to others who may be interested in further innovation and development of the particular field of technology.\textsuperscript{34} Patent records are valuable sources of technical information.

Although this argument has been very popular for sometime, its real value as an assured source of information and means of diffusion of technological knowledge for development have been questioned.\textsuperscript{35} The opponents of this theory argue that inventors disclose only what they are not able to keep secret. In other words, inventions are patented only when secrecy is impossible.\textsuperscript{36} In this regard, the Economic Council of Canada contended that:

\begin{quote}
The patent system encourages disclosure of inventions but does not guarantee it. Where secrecy can be made effective, an inventor may prefer its protection to that furnished by the patent system and may therefore, neither patent nor disclose.\textsuperscript{37}
\end{quote}


\textsuperscript{34} Beier F-K., *Traditional and Social Concepts of Protecting Inventions*, 1 IIC, pp. 328-339, at 337.


\textsuperscript{37} See Economic Council of Canada, *Report on intellectual and industrial property*, Ottawa, Information Canada, 1971. In a very recent study about Know-how agreements, it was accepted that, the existence of patent protection is to a large extent justified by the impossibility of preventing the disclosure of certain types of technology when they are put to economic use. Cabanellas G., and Massaguer J., *Know-How Agreements and EEC Competition Law*, 12 IIC, 1991, p. 3.
A considerable number of new technologies and formulae (patentable or not) are not patented because they can be protected outside the patent system quite effectively and for an unlimited period of time. The disclosure of patent specifications even if it is drafted in great detail, can often be made vague intentionally, or exclude some vital information that is necessary for the industrial exploitation of the specifications. To prove this assertion one may refer to the ever increasing importance of the role of non-patented know-how in transfer of technology transactions.

Regarding the issue of know-how, the argument of those who disagree with the importance of patent as an incentive to disclose specifications is that the scope of protection of the invention in the 20th century has been changed. Most of know-how is no longer the unpatentable part of technology, rather it consists of knowledge that is patentable, but is left outside the patent system intentionally, because other methods such as confidential contracts or trade secret law are employed to preserve it as a secret for a longer period than do patent grants.

Although this trend has diminished the significance of the disclosure of contents in patents, unlike some countries such as Iran that only register inventions, many countries still give an important position to the highly debatable disclosure and informational function of patent protection for technical, economic and social

38 In this regard, the case of Coca Cola is just an example. Yankey G., International Patents and Technology Transfer to Less Developed Countries, Published by Avebury, 1987, p. 16; See also Greer D. F., The Case Against Patent Systems in Less-Developed Countries, 8 J. Int'l. L. & Econ., 1973, pp. 223-246, at 223, 245, 246.


40 UNCTAD, Handbook on the Acquisition of Technology by Developing Countries, TT/AS/5, 1978, p. 47. It should be recalled here that, in addition to the patentable inventions, there has been a sort of complementary information named know-how (information about how to do something), obtained through the exploitation of patented technology, which may not be patentable itself, but is often necessary to utilize a patented invention effectively. For more details see Chapter Eight.

development. No such disclosure is required in Iran where patents are registered without adequate disclosure formality.

(c) Incentive to Promote Investments for Research and Development

The intervention of law in a free market system to grant exclusive patent rights is justified by the importance of new information in the process of industrial and economic development. The existence of the patent system may work as a magnet for investment in research and development and a significant way of promoting technological and industrial progress. This leads to technological changes and more efficient allocation of resources which in the end will benefit the consumers. The incentive to invest in research and development has been recognised as the only sound justification for the patent system. By emphasising the necessity of research and development for technological progress and economic growth, this theory points out that patent systems encourage enterprises to invest in research and development to introduce innovations enabling the utilization of new inventions where economic viability is in doubt. In other words, without patent protection restraining imitation and securing exclusive use, the private sector would not be prepared to commit itself to the risk of investing in new technical development.

However, there are others who argue that, notwithstanding the patent protection system, enterprises will invest in research and development in order to maintain their market position and remain competitive. Competition, in their view, is regarded as the main force propelling enterprises into investment in research and development.

Apart from the deliberate exclusion of information by the patent holder, however, some other possible reasons for the inadequacy of the disclosure could be that the technology is inherently difficult to describe; that because of the importance of obtaining priority in filing the patent specification the information is not fully completed; that the patent office does not examine the material disclosed carefully enough; or that the legal obligations imposed by disclosure are insufficiently precise. Ibid, p. 21.

According to the studies undertaken on the effects of Australian patent system (1982), Canadian industrial research and development activities (1971), and U.K. manufacturing firms (1973), a small percentage of the research and development would not have been carried out if enterprises had not been able to patent the resulting discoveries. Moreover, it has been revealed that the impact of the patent systems on research and development may vary according to the industry and the capacity of the firm or inventor.

It is submitted that, where patent protection is totally absent or weak, enterprises do not usually invest in long term expensive research and development projects. Instead, they concentrate on the technologies which can be kept secret for as long a period of time as possible, and those which are not copied easily. In this case, the inventions are not disclosed and society cannot take advantage of the relevant technical information.

The aforementioned arguments in support of the patent system as a factor in promoting investment in research and development are derived from the conditions that exist in industrialised countries. These countries already have the ability through research and development to make new patentable discoveries meeting the requirements of universal novelty and inventiveness stipulated by modern patent laws. By contrast, developing countries, because of their inability to undertake original research, cannot benefit under the current patent system for one main reason: the products of research and development cannot meet the requirements of universal novelty and inventiveness. As will be seen in the next chapter, many developing countries including Iran, have been persuaded to accept the absolute novelty criterion in their patent legislation.

It means that the results of research and development must not have been published or used in any other country, including industrialised countries, in order to

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44 Cited from Yankey, op. cit., note 38, pp. 11-12
be patented in Iran.\footnote{Registration of Trademarks and Inventions Act, 1931, \textit{Iranian Official Gazette}, No. 772, Article 37. Hereinafter cited as the Iranian patent law.} Therefore, such a patent system in the developing countries does not provide adequate incentives for private entrepreneurs in these countries to invest in research and development because the resulting innovations may not be patentable as they might have already been published or used elsewhere.

In Iran, the patent system has also not had an impact on the state owned enterprises and other research and development centres including universities. The Centre for Scientific and Industrial Research of Iran (CSIRI) has published the number of patents granted in the country between 1985 and 1990. Out of 200 patents granted in Iran during this period, only two patents were owned by the government research centres.\footnote{For more details as to the position of research and development in Iran, see Farmand F., \textit{Transfer of Technology and Economic Development: The Role of Industrial Research Base in Newly Industrialising Countries: Lessons from Iran}, Unpublished Ph.D thesis, School of Art and Science, New York University, 1992, particularly pp. 257-265.} The lack of success with patentable innovations by both state owned research establishments and private enterprises in Iran points to the unsuitability of the stricter criterion of newness adopted for patent grants in the industrialised countries to the conditions that exist in Iran.
IV. Facilitation of Transfer of Technology

Transfer of technology takes place through foreign direct investments, joint ventures between foreign and local firms or through licensing agreements between a foreign patent holder and a local enterprise. A strong patent system gives added security to a foreign holder of intellectual property rights including patents against imitations of his product by unauthorised persons.

Foreign enterprises would be discouraged from setting up manufacturing plants using patented technology in countries where patents are not protected. They would be especially reluctant in such circumstances to set up joint ventures with the local manufacturers for fear that the local manufacturer might dissolve the joint venture after acquiring needed foreign technology. The introduction of patent system to protect intangible property rights is indicative of the extent of the cooperative stance of the country and its willingness to comply with international norms with regard to foreign investment and technology.

However, there is consensus that, besides patent legislation, other determinants such as market size, infrastructure facilities, political and economic stability, sound judicial and bureaucratic systems, predictable taxation laws, power to repatriate profits, guarantees against expropriation, availability of raw materials, skilled and cheap local labour and the general investment climate are important for successful foreign investment and licensing agreements.\textsuperscript{48} In Iran also although the Iranian patent law excludes protection of patents in pharmaceutical compositions and formula of making

\textsuperscript{48} For example despite the annulment of process and product pharmaceutical patent in Turkey, the amount of Foreign Direct Investment increased considerably. See Kırım Arman, \textit{Reconsidering Patents and Economic Development: A Case Study of the Turkish Pharmaceutical Industry}, 1985, 13 World Development, pp. 219-236. Conversely, in Nigeria, although pharmaceutical inventions are protected adequately, it did not result in any significant Foreign Direct Investment. On the other hand, foreign pharmaceutical patents in Nigeria were used as import monopoly for distribution rather than manufacturing locally. Thus, local and foreign competitors were prevented from entering the market. See Adikibi Owen, \textit{The Multinational Corporation and Monopoly of Patents in Nigeria}, 16 World Development, 1988, pp. 511-526.
pharmaceutical products in the country, because of the open door policy of the earlier Iranian governments towards the Western industrial countries, firms originating from those countries through direct and indirect investment hold a large share of the lucrative Iranian pharmaceutical market.

(a) **Insufficiency of Patent Laws for Transfer of Technology**

Unfortunately, investments by the foreign firms in the local pharmaceutical industry did not do much for the development and transfer of technical expertise to Iran. A foreign pharmaceutical firm usually established a joint-venture firm with an Iranian counterpart for the ostensible purpose of establishing a local industry but, in practice, the joint venture imported the individual chemical components of pharmaceutical products from or through the foreign parent company and the local input was limited to mixing the various components and packaging for the local market. Since such a simple assembly operation or final processing did not require a high degree of technical sophistication, hardly any technical knowledge and know-how rubbed off on the local partner of the joint ventures.

The psychological importance of patent system for foreign investors cannot be dismissed as irrelevant. A United Nations report concluded that:

"patent protection in developing countries may or may not have a high place among the profitable conditions or guarantees which he (the foreign patentee) expects. In any case, the fact that patent protection is actually asked for and expected in a large number of situations and

49 Iranian patent law, Article 28(3).

quite apart from its actual economic significance it may be of psychological importance for the foreign patentee inventor". 51

There is no doubt that for the successful execution of licensing agreements for needed technology, there must be in place a legal framework which includes an effective patent system which is compatible with international accepted norms. From Second World War until the 1970s, Japanese industry made its most intensive use of foreign technology through licensing agreements. The Japan's patent system is believed to have played a key role in facilitating the acquisition of foreign technology.52 It is interesting to note that the method typically employed was to license major advanced technology from abroad, and then to improve and support that technology with multiple minor inventions( utility models) at home.

It should be recalled that technology licensing agreements contain in most cases both patent and secret know-how. Although pure know-how licensing takes place on an arm’s length basis quite successfully, it has been accepted that without the assistance of patents, mainly in mechanical engineering, there is not enough legal basis for pure know-how licensing and legal protection for the parties involved.53 Likewise, the absence of strong industrial property laws in a country requires more contract, business and tax laws.

53 Ibid; Taylor and Silberston, Economic Impact of Patents, University of Cambridge, Department of Applied Economics, Monograph, (1972), pp. 214, 215. It is worthwhile to recall that, the disclosure of technology contained in the patent grant is not sufficient to make it commercially workable without technical assistance and know-how from the patentee. Foreign patentees are reluctant to convey the know-how in conditions which might deprive them of the protection their patent provides.
(b) Incentives to Innovation

While an invention is a prescription for a "new" manufacturable product or viable process, innovation involves all technical, managerial and marketing efforts by which the invention is actually manufactured and commercialised. For the successful working of an invention, a large amount of capital and new additional information are necessary. Therefore, the foremost economic justification for patent system could be the creation of adequate legal protection for entrepreneurs to invest confidently in the manufacture of new products. Clearly enough, without having a sort of "market power" to provide a head start by keeping others out of the market for certain period of time and to protect the new information from imitation by rivals, the investors may not be able to obtain attractive prices and recover their capital in a reasonable period. Thus, no industrial investment and innovation will be possible without effective laws to protect industrial property rights.\(^{54}\) For industries that are already established and profitable, the patent system enables the owners to reinforce their power in the market.\(^{55}\) Much of the power is created by legalising, as will be considered later, the incorporation of some normally unreasonable restrictive clauses in technology licensing agreements.

Unfortunately, although this justification was pivotal to the institution of a patent system, it is not borne out by most patent laws. Modern patent laws protect invention *per se* directly and innovation, namely the application of the invention in

\(^{54}\) The Banks Committee reported that:

*Resources are to be put at risk to develop a new process or product, which has yet to be tested, then [the man with resources] will hesitate lest the expense of the development may prove to be irrecoverable while his competitors can wait, and without equivalent expense, pick up and use the successful results. It is the knowledge that a patent monopoly will enable him to hold off competition for a period which encourages him to take the risk and use those resources to develop new industrial inventions.* \textit{The British Patent System - Report of the Committee to Examine the Patent System and Patent Law}, Chairman, M. A. Banks, July, 1970, reprinted in Department of Consumer and Corporate Affairs of Canada, \textit{Working Paper on Patent Law Revision}, 1976, Appendix C, p. 4.

actual manufacture and marketing, only indirectly. As was indicated above in the 18th and 19th centuries, the grant of a patent was conditional upon the active commercial implementation of the invention. Thus, the applicant had to have the necessary means to produce the new article. Today, an "invention stands between the monopoly rights and the innovation." The patent holder cannot be compelled to invest in the manufacture of his new product.

The emphasis is on the introduction of new information. Therefore, it is not surprising that a considerable number of inventions, particularly in the developing countries, has not been worked in recent years. In Iran, for instance, 99 per cent of patents granted to foreigners have not been worked. In the same vein, UNCTAD has reported that 84 per cent of all valid patents in developing countries were owned by foreigners, mostly multinational corporations, and 90 to 95 per cent of these foreign patents were unused. This is partly because priority has been given in modern patent systems to the introduction and protection of "new" inventions per se, rather than the transformation of the new ideas into tangible products.

56 Kingston, op. cit., note 20, p. 3.
57 Interview in Teheran by the author with Mr Soltani, the Director of the Iranian Patent Office, Teheran, January 15, 1995.
59 Unfortunately, this is the case in most non-industrial countries that are the net technology importers. For instance, the Iranian patent law while it confers monopoly right for any new type of discovery or invention in various fields of industry and agriculture, the patentee has 5 year time to utilise the invention. The letter-patent may be cancelled after this period when an interested person in the country petition to the courts and proves that the patent has not been worked. There has not been even one annulment of granted patents for non-working in Iran yet. Interestingly enough, the inventions must be new at worldwide base and no compulsory licence may be imposed. For more details of the Iranian patent law see Chapter Nine.
V. Iranian and Islamic Jurists and Justification of Patent Rights

(a) Iranian and Islamic Concept of Patent Rights

To date, Iranian scholars have not made a comprehensive examination of the subject of industrial property rights. Some references have been made in their works to these rights but nothing specific can be clearly discerned. More than sixty years have elapsed since the enactment of the Iranian patent law and throughout this period no economic analysis has been attempted to evaluate the costs and benefits of the patent system in Iran. The main sources of Iranian patent law are the work of two Iranian jurists^60 who, for the most part, explain provisions of the Iranian Patent Act and the Paris Convention. Little has been written discussing the patent concept, the objectives of patent laws and their practical effects on transfer and development of technology. There has also been no elaboration of patent rights in the work of Islamic jurists (Moujtabeheden) for the reason that at the time of the origin of Islamic law, patent was an unknown concept. Besides, Islamic jurists do not rule on any issue until it has actually arisen and a solution becomes necessary. Industrial economy is relatively a new phenomenon even to contemporary Islamic jurists who only very recently have begun to address the issues.61

There are two distinct views about patent rights among contemporary Islamic jurists in Iran. From one standpoint patents should not be granted by an Islamic state because they create industrial and economic monopolies and contribute to social injustice. In this regard, the late Ayatollah Khomaini stated that:


61 It is worthwhile to be noted that before the emergence of industrial progress, some Islamic jurists had paid attention to the authors’ rights. For instance, Second Shahid in Moniatolmorid states that, no one is allowed to alter authors’ creations, or without their permission enjoy economic interests of such creations. Teheran, several publication.
what has become customary that an industry is registered for its inventor, and others are prohibited from its imitation and its diffusion, from the religious point of view has no effect and it is not allowed that others be prohibited from imitation [of the industry] and trading with it.\textsuperscript{62}

The Ayatollah's declaration has been interpreted to mean that the registration of inventions is an instrument for erecting trade barriers in order to monopolise industries and the factors of production. As a result of such a monopoly, other competitors are kept out of the market, prices are increased and the public, as a whole and consumers, in particular, will be the main losers. Therefore, by the abolition of patent monopoly, those trade barriers are dismantled, fair competition is established and products are sold at the lowest possible prices.\textsuperscript{63}

According to commentator Shirazi, inventions are like natural resources and belong to the public. This is because inventors and innovators emerge from millions of people who have been educated by the public funds. What they do is the utilisation of past knowledge and experience and build up on that. A new machine or industry

\textsuperscript{62} Alhaag Seyed Rohollah Almosavi Alkhomaini, Tahrirolvasile: Novel Problems, 1977, Teheran, several publishers, vol. 2, p. 626, (in Arabic). It is worthwhile to be added that, according to Ayatollah Khomeini, no one is allowed to alter an author's creation or claim others works as his works. For elaboration of the issue see generally Sadeghi, M. H., Author's Rights in Iran and International Convention, unpublished LL.M. Dissertation, Tabristan Modarres University in Teheran, 1988. For another opponent of granting monopoly rights to inventions see Ayatollah Safi Golpayegani, Rahnamun, published by Motahhari High School, Teheran, No. 2, 1992, pp. 206-213, at 207. (in Persian)

\textsuperscript{63} Shirazi A. K., Economic Problems, Teheran, 1987, p. 272, 273, (in Persian). In another interpretation of the Ayatollah's declaration it was stated that inventors do not always invent to acquire money. The psychological aspect of inventions and innovations is perhaps more desirable for them. On the other hand, damages resulted from such monopolies are more than damages which may result from the lack of those monopolistic industrial rights. Daftare Hamkarie Houze va Doneshgah, An Introduction to Islamic Economy, Teheran, vol. 1, 1984, pp. 320-321. (in Persian)
is in fact, a product of the human intellectual activities and social progress which have evolved over the centuries past.  

In sum, this approach does not presume any legal right for inventors, and clearly presupposes that:

-invention and the development of new ideas are inherent in the human mind and would continue to manifest without any legal protection being available for the results. In other words, the introduction of the legal security for inventors cannot provide a milieu in which uninventive persons create new inventions;

-patent grants are used to strengthen the concentration of economic power of large foreign corporations to set up import monopolies and to facilitate the introduction of restrictive clauses by means of licensing agreements;

-domestic firms have enough incentives, capital and technological capability to do research and development and exploit new inventions successfully and manufacture the required products themselves without an elaborate patent system.

The first supposition above is shared by some Western jurists. The second one, as will be seen later was very true in the case of Iran and other developing


66 See Chapter Nine.
countries.\textsuperscript{67} However, the abuses described are best resolved by improving the institutions that administer and enforce the law.\textsuperscript{68} As regards the third, it is submitted that it bears no resemblance to the actual conditions in which Iranian entrepreneurs are placed. Even industries in developed countries would have difficulties with the third supposition. The importance of protection of industrial property rights in the commercialisation of new inventions and technology to the industrialisation process of Iran should not be underestimated. In actual fact, many contemporary Islamic jurists take the view that Islamic law in itself provides a high degree of protection to intellectual property rights.

(b) Justification of Patent Rights in Islamic Law

Burdened with the religious factor in Iranian jurisprudence, still another view has been advanced by other Islamic jurists.\textsuperscript{69} They believe that intellectual property rights as a whole, are justifiable on the basis of analogy with other rights recognised by judicial experts.\textsuperscript{70} It has been reasoned that, in Islamic jurisprudence, while religious responsibilities are established on the Koran’s instructions and Islamic


\textsuperscript{68} The patent monopoly, like any other form of property, might be misused: insufficient disclosure, non-working or inadequate use of inventions and imposing excessive restrictive practices in licensing agreements. While the national patent law itself can be regulated in a way to prevent patent abuses, it is up to each individual country to pass other legislation to control and reduce those abuses. For further details see Chapter Ten and Appendix Two.

\textsuperscript{69} Ayatollah Fazel Lankarani M.; Ayatollah Emmami Kashani, M.; Ayatollah Sobhani J.; Ayatollah Marashi Shoshtari, M. H.; Ayatollah Makarem Shirazi, N.; and Ayatollah Mosavi Bojnordi, M. The above mentioned Islamic Jurists’ views regarding copyright and patent may be found in Rahnamun, op. cit., note 62, pp. 207-213.

\textsuperscript{70} Ibid.
narratives, commercial transactions are based more on the recognition accorded to
them by the "wise jurists"\textsuperscript{71} in their wisdom and great understanding. Therefore, if
something is recognised by them as "right" and at the same time has not been rejected
as illegal expressly or implicitly by traditional Islamic sources, that right may be said
to have a legal basis in Islamic law.\textsuperscript{72} Unless they have been specifically rejected by
Islamic principles, intellectual property rights may be granted once "the wise"
recognise them as rights and being in the interests of the society.\textsuperscript{73} After all, "what
is accepted by wisdom, is accepted by the religion as well."\textsuperscript{74}

Furthermore, there is evidence that Islam has attached particular importance to
the concept of ownership. The Koran says "man can have nothing but what he strives
for."\textsuperscript{75} In other words, what human beings obtain through their legitimate efforts
should be respected. Such an effort need not necessarily be a physical one. This school
of thought goes to say that, since an intellectual work may lead to huge productive
results, intellectual effort is superior to physical effort.\textsuperscript{76} Against the first above
mentioned Iranian view on patents, this legal approach regards the intellectual property
right as a natural right and equalizes it with rights over physical property.\textsuperscript{77}

We have already discussed the demerits of the natural right thesis as a main
justification for protection of intellectual property rights. The recognition of "ideas"

\textsuperscript{71} Sadeghi M. H., op. cit., note 62, pp. 48-55.
\textsuperscript{72} Fazel Lankarani, in Rahnamun, op. cit. note 62, p. 210; see also Sadeghi M. H., Ibid.
\textsuperscript{73} Sobhani, in Rahnamun, op. cit., note 62, p. 207; Sadeghi M. H., Ibid.
\textsuperscript{74} See Rahnamun, Ibid., pp. 210,212. "What is accepted by wisdom, is accepted by the religion as
well", is a very important principle for Islamic shi'a Jurists who regard the wisdom as one of the
main sources of Islamic law. For more details of the shi'a school of thought which is predominant
in Iran and its differences with other branches of Islamic school of though, see, Langroodi, M. J,
Legal Schools of Thought in Islamic Law, Teheran, 1974, particularly pp. 111-133. (in Persian)
\textsuperscript{75} Koran, Section 53 (Alnajm) verse 39.
\textsuperscript{76} Intellectual Property Rights: First Step, Hamshahri, Teheran, 16th November 1994, No. 550,
p. 11. (in Persian)
should be only the "first step" towards the establishment of a coherent and responsive intellectual property system in Iran. Any overestimation of either the natural rights or the "ideas" themselves as we considered above, would isolate the intellectual property system from the real needs of the society. As far as the protection of industrial property rights is concerned, it must be understood that Iran can derive benefits from patents and other forms of industrial property only to the extent that technical knowledge is put to effective use in the country and lead to the establishment of production facilities called for Iran's national development plans and priorities.

Unfortunately, in practice, the first Iranian industrial property law which was introduced in 1931 was modeled after the old French law of 1844 and was based on the natural rights of the intellectual creators. That is why, as will be indicated in Chapter Nine, the Iranian patent law is more concerned with the private right of inventors than the public interests and the economic development of the country.

The revolution of 1979 called for "unislamic laws" to be repealed, but the Guardian Council of Iran's constitutional law has not invalidated or modified the industrial property law of 1931. The Iranian patent law of 1931 and its Regulation of 1958 are still in force. Having reinforced the law, little has been done to make it efficient and more relevant to the achievement of industrialisation of the country. This will be considered in detail later.

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78 Iranian patent law. See Chapter Nine.
VI. Conclusion

It would appear from the claims and counter claims that much of the discussion of the subject of the patent system is often quite theoretical. There has been a lack of conclusive evidence as to the role played by patent grants in industrial development of different countries. There is a lack of empirical data on the consequences to economic and industrial development of the lack of a strong and effective patent system. As Penrose observed, "it would be helpful in evaluating the patent system if arguments based on comparative industrial development of different countries had any logical rationale. Unfortunately it is necessary to reject them since there is no way of showing what would have happened if the history of patent system had been different."  

However, two general propositions have emerged in regard to the economic benefits of the patent system: First, if a patent system already exists, it is irresponsible to abolish it on the basis of the present state of knowledge. The existence of patent legislation in a country provides a legal framework, for the transfer of technology licensing agreements, which is internationally recognised and has served some countries very well, notably Japan. That is why developing countries, rightly, have

79 Even the demonstration and analogy of the economic history of the industrialized countries to prove that patent system benefits society can not be regarded necessarily convincing as regards the developing countries. Since these countries have peculiar political, economic and scientific problems very different with those in the developed countries.

80 Penrose, op. cit., note 28, p. 39. It is equally important to notice that, what Penrose and others regarding the evaluation of the patent system said, do not mean that the system at least for industrialised countries has not worked. But the point is that whether this system is the best one to create the ideal environment for improvement of technology and for the benefit of developing countries. In fact, as examined by Anderfelt, some scholars believe that United States industrial and scientific progress provides proof of patent system's effectiveness. Anderfelt, op. cit., note 3, pp. 27-28.

81 It has been maintained that from Second World War until the 1970s, Japanese industry which supported financially by the government made its most intensive use of foreign technology through licensing agreements. As a survey observed, "this has been inevitable, because Japan made a late start and therefore had to catch up in a short period with the advanced nations". See Japan
resisted temptations to opt out of the major international regime for protection of industrial property with all its weaknesses. Instead, the countries have tried to revise those provisions which have negative effects on their economies.

Second, at any rate, one fact seems to be indisputable. The patent system should protect those economically important inventions whose social cost will always be less than the benefits. Such inventions would not have been possible without patents. The patent system yields a net benefit to the public when patents are granted only for those inventions which would not have been possible but for the patent system. Granting patent protection to inventors who would have introduced their products without such incentives imposes unnecessary social restrictions. At the same time, there is no doubt that the granting of patents, synonymous with ceding market power to foreign nationals by those countries which are substantial importers of industrial property without corresponding exports, is acceptable only if the nature of the power is so conditioned as to make its exercise consistent with the public interest of the importing country.

The patent system, therefore, must be so designed that it encourages local firms to invest in research and development and routinely undertake innovative activities

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82 See Chapter Four.

83 Due to various levels of economic, industrial, scientific and social development of nations, the economically important innovations which have radical impact on societies are varied. For instance, such major innovations for the Unite States of America described as xerography, instant photography, transistors, lasers, synthetic textile fibbers, and the airplane. See Gee, S. Technology Transfer, Innovation, and International Competitiveness, 1981, p. 161. The critical innovations for development of a developing country can be those inventions relating to a particular industry for instance, mining technology because of the availability of a particular natural resource. Such inventions, however, in developing countries might be considered eligible for the grant of innovation certificates. For more details see Chapter Nine, pp. 235-242.

84 Kahn M., The Role of Patents, in Competition Cartels and Their Regulations, 1962, pp. 308-311. It must be noted that, although such a cost/benefit evaluation differs from country to country, regarding free market and advance economy countries, scholars including Bowman believe that, consumer-oriented reward system that grants temporary monopoly to patentees to excludes others provides social benefit because resources are better allocated. Bowman W., Patent and Antitrust Law, 1973, p. 32.
and, at the same time, contribute to the development of industry by teaching industry new innovations. The system should act as a vehicle for the transfer of technology from the more advanced technology countries and be sufficiently effective to mitigate the damage resulting from the misuse of patents. Moreover, in addition to patent rules which are designed specifically to prevent abuses such as insufficient disclosure or "non-working" of the patented inventions, other safeguards such as competition, anti-monopoly laws and transfer of technology laws may be desirable to control the practice of incorporation of harmful restrictive clauses in licensing agreements and to outlaw monopolistic conduct in the market.

As will be examined later, member States of the Paris Convention are also free, to a certain degree, to adapt their national patent systems and to legislate necessary measures to counter patent abuses. Some developing countries have taken advantage of this freedom. National patent laws continue to expand and strengthen in many countries because of the above approach and because of the contemporary faith in a free and competitive market in goods and services.

85 The purpose of patent law of Japan is to encourage inventions by promoting their protection and utilisation and thereby to contribute to the development of industry. See The Intellectual Property Law of Japan of 1959, as amended in 1988.

86 Some developing countries in order to minimize the disadvantages of foreign patents introduced changes in their patent legislation. These changes consist of: exclusion of some products and processes from patentability, a limitation of the duration of patent grant for specific products and processes, strengthening of disclosure requirements, stricter provisions for compulsory licenses, revocation as remedies for non-use and strong provisions against abuses in patent licensing agreement. See UNCTAD Secretariat, Review of Recent Trends in Patents in Developing Countries, TD/B/C.6/AC.5/3, 1981; see also UNCTAD Secretariat, The Relevance of Recent Developments in the Area of Technology to the Negotiations on the Draft International Code of Conduct on the Transfer of Technology, U.N. TD/Code TOT/55, 2 October 1990, p. 23.
Chapter Four

INTERNATIONAL ACCORDS FOR THE PROTECTION OF INDUSTRIAL PROPERTY RIGHTS

The patent systems of the developing countries and the practices of the international patent system, as embodied in the International Convention for Protection of Industrial Property (Paris Convention)\(^1\), are closely related. The principles and rules evolved within this Convention have produced important effects on most national patent laws and inevitably on the flow of technology. In this chapter, the development of an international legal framework for the protection of patents will be traced to show the unsuccessful efforts made by the developing countries for a fair balance between patentee rights and public interests.

The conclusion is that developing countries as a group and international organisations such as UNCTAD have failed to achieve any significant reform of the Paris Convention to recognise the particular needs of the developing countries, namely, the transfer and development of technology: developing nations do not enjoy a favourable treatment as to protection of the intellectual property rights of foreigners under the Paris Convention. The new changes resulting from provisions in the TRIPS Agreement have largely ignored the competitive capabilities of developing countries with respect to the creation of intellectual property.

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\(^1\) International Convention for the Protection of Industrial Property of 1883 known as the Paris Convention has been ratified by 107 States, most of them from developing countries. See Indus. Prop. January 1993, p. 9. The original signatories of the Paris Convention were Belgium, Brazil, France, Guatemala, Italy, Netherlands, Portugal, Salvador, Serbia, Spain, and Switzerland. A considerable number of developing countries including the largest ones such as India, Pakistan, Thailand and the Andean countries (Bolivia, Colombia, Ecuador and Peru) have not ratified the Convention yet. Bangladesh in 1991 and Malaysia in 1989 became party to the Convention. For a history of the Convention see Lades S., Patents, Trademarks and Related Rights: National and International Protection, 1975, p. 1030. See also Penrose, supra, Chapter Three, note 28, (describing 19th century patent controversy and providing extensive analysis of events leading up to Paris Convention). In this study references are made to the latest revised text of 1967 (Stockholm Act), unless indicated to other texts.
I. International Convention for Protection of Industrial Property

(Paris Convention)

The study of the Paris Convention is important because it sets a compelling framework which must be adhered to by national patent and related legislation in developing countries even though their main objective, namely, to acquire foreign technology at an economic cost, is different from that of the Convention which is concerned about protecting industrial property rights per se. Developing countries have repeatedly contended that the Convention is biased towards the holders of industrial property rights and that it has generally ignored the question as to the measures to be taken if the holders do not exploit and diffuse their technology in the patent granting countries. Amongst different misuses of patent rights are insufficient disclosure, imposition of excessive restrictive clauses in technology licensing agreements and non-working of patented inventions.

The international debates relating to the revision of the Convention clearly illustrate one of the key differences in the approaches of the developed industrialised countries and the developing countries with regard to the control of restrictive clauses in technology transfer agreements. The most important question to emerge is to what extent, if any, the adoption of national safeguards, such as restrictive business practices law to control and approve industrial property licence agreements, are regarded as an erosion of the international legal system of industrial property rights introduced by the Paris Convention.

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(a) **The Minimum Standards of Protection**

Although certain aspects of technology policy in general and technology transfer in particular are left to individual states to decide\(^4\), the Convention sets some minimum standards which must be strictly observed by developing countries. The developing countries have, however, questioned the validity of these standards and have argued that the standards applicable to them should logically be different from those applicable to industrialised countries because of the different levels of their economic and industrial development.

The minimum standards that the member states should comply with concern "national treatment", "the right of priority", "independence of patents" and patent rights and to some extent the responsibilities of patentees.\(^5\)

(b) **The Principle of National Treatment**

The legal rule, which has had the greatest influence on international accord on the patent system, is probably the rule prohibiting discrimination against foreign patent holders. The same treatment as enjoyed by the local patent holder should be given under the national law to the foreign holder. There should be no barriers to the entry

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4 A former Director General of WIPO explained the freedom of the member States of the Paris Convention as follows: [they are] *entirely free to establish the criteria for patentability, to decide whether patent applications should or should not be examined in order to determine, before a patent is granted, whether these criteria have been met, whether the patent should be granted to the first inventor or to the first applicant for a patent, or whether patents should be granted for products only, for processes only, or for both, and in which fields of industry and for what term. See Bodenhausen G.H.C., *Guide to the Application of the Paris Convention for the Protection of Industrial Property*, (as revised at Stockholm in 1967), Geneva, United International Bureaux for the Protection of Intellectual property (BIRPI), 1968, p. 15, 16.

5 Paris Convention, Article 25
of foreign patent holders into a market and once there, they should be treated by the law in exactly the same way as national patent holders. The national treatment rule is regarded as the cornerstone of the Paris Convention which is designed to ensure that there is no discrimination in international trade in industrial property. The Convention provides that the "national of any country of the Union, shall as regards the protection of industrial property, enjoy in all other countries of the Union the advantages that their respective laws now grant."

The principle of national treatment covers all aspects of patent laws and, according to Bodenhausen, consists "in the application without any discrimination, of the national law as applied to nationals of the country itself." It is on the basis of this principle that countries such as Iran grant equal patent protection to members of the Union.

Due to the wide gap in scientific and technological capabilities between the developing countries and the developed industrialised countries, most inventions are made in the latter countries and, as a result, the overwhelming majority of the patents in developing countries is owned by foreigners, mainly transnational corporations. The principle of equality affords industrialised countries which are exporters of technology the opportunity to obtain a much greater advantage than the developing

6 Ibid., Article 2(1).
7 Bodenhausen, op. cit., note 4, p. 29.
8 Permission Law of Adherence of Iranian Government to International General Union Known as Paris for Protection of Industrial and Commercial and Agricultural Property, February 1958. On the basis of the above mentioned permission Iran ratified the convention and among other things, Iran agreed to observe the national treatment principle of the convention. Iranian Official Gazette, No. 28-7269, Article 2.
9 In Iran 95% of all granted patents during the last sixty years belong to foreigners. For more details see Chapter Nine. According to Patel, some three million odd patents registered all over the world, only 20000 that is almost 20 per cent are owned by enterprises or persons in developing countries. Patel, S. J. The Technological Dependence and Developing Countries, 12 J. M. African Stud., 1974, pp. 1-17, p. 12. UNCTAD reported another findings and mentioned, while developing countries hold a bare of 1 per cent of the world total of patent grants, foreigners own in developing countries six times more patents than the national of these countries. Furthermore, over 90 per cent of the patents so owned by foreigners are never used in production processes in developing countries. See UNCTAD, TD/B/AC.11/19/Rev.1, 1975, supra, Chapter Three, note 5, p. 48.
countries. Inventors in these countries face financial, scientific, and infrastructure difficulties which prevent the inventors from competing with their counterparts in industrialised countries on an equal basis. Equal treatment would operate to the mutual advantage of the members of Paris Convention only if all countries were at the same level of technological and economic development. Unfortunately, developing countries are not at the same level of industrialised countries which own the bulk of intellectual property rights and the international legal framework does not provide any scope for compensating their inequalities. Thus, there is no such thing as affirmative action in international patent law to aid the developing countries.

The principle of equal treatment gives the stronger foreign party an unlimited freedom to utilize his power to the detriment of the local weaker party. The Convention prohibits all contracting member states including undeveloped states desperately weak in science and technology from legislating measures to benefit local inventors and encouraging local inventive efforts without extending the same measures to foreign nationals too. In Iran, for instance, the encouragement and support of local technological innovative activities is very critical but because of the national treatment requirement, the country is not able to introduce different conditions of novelty and duration of the patent grant for its own nationals and exclude their powerful competitive foreign rivals.

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10 World Bank, supra, Chapter Three, note 35, p. 11.

11 See, UNCTAD The Role of Patents, op. cit., note 9, p. 47.

12 Paris Convention, Article 2.

13 It should be noted however that under the Convention, the national treatment principle does not prevent the governments of member states of the Paris Convention from providing financial, fiscal or other supports to create a better inventive environment for their national inventors, to the exclusion of foreign inventors. Some developing countries have done so. For example, Philippines has striven to create a better environment for local inventiveness, by investing in research and development in the fields of science and technology, improving education, providing economic and financial aids, giving priority to the building of adequate infrastructure facilities and furnishing other resources as necessary. Political and cultural factors have also contributed to the efforts of the Philippines government. The results have been reported as satisfactory, at least in the Philippines. See WIPO, Inventiveness for Development Process: Selected Proceedings of the International Seminar, held in Plovdiv, Bulgaria, November 12 to 15, 1985, WIPO Pub. No. 655(E), 1987, p. 39.
Developing countries, therefore have demanded some exceptions to national treatment that allow them to adopt patent policies which would encourage their local technological innovative activities. Some exceptions, for instance, suggested to be in respect of different fees, working of the patented inventions, duration of patents, easier revocation of foreign patent grants and novelty. ¹⁴

(c) Right of Priority

Most national patent laws incorporate the "novelty" concept in one way or another. Publication of an invention arising out of a patent application or grant not only results in the destruction of the novelty of the invention in the original patent granting state but also in some other states under their laws. Thus, an inventor who wished to utilize his patented technology outside his country of origin, in practice, would face tremendous difficulties. The "right of priority" standard contained in the Paris Convention has attempted to address this problem.¹⁵ The Convention provides that any person who has duly filed an application for a patent in one member country party may apply for a patent in any of the other member countries of the Convention within a period of 12 months.¹⁶

These late applications then can be regarded as if the applications had been filed on the same day as that on which the first application was filed.¹⁷ The novelty

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¹⁵ Paris Convention, Article 4.

¹⁶ Ibid.

¹⁷ Bogsch, op. cit. not 14, p. 198.
of the invention is lost only at the end of the 12 month period after the first patent grant. In other words, a patent holder in one member state has 12 months to file applications in other member states, without running the risk of the patent being copied by someone else. That means the patent holder can fully exploit or withhold the invention in another member state for the same period without bothering to apply for a patent there, thus stalling any attempt by nationals in that state from developing the patented technology. This had led to the developing countries calling for the reduction of the priority period which is unreasonable in modern times considering the speed and efficiency in the means of communication and transport coupled with a demand for generally "preferential treatment" for their nationals. Apart from the exception that a patent granted in one member country is valid for a period of 12 months in all member countries of the Convention, the general rule is that patents granted in various member states are all independent.

(d) Independence of Patents

An inventor seldom knows which country is the most profitable for exploiting his technology. He takes the decision to apply for a grant or grants usually after exploring potential markets. He may much later on, after taking out grants in some countries, search for other markets to expand his enterprise or switch to other attractive markets. During his evaluation process he may well decide to discontinue patents in some of the countries in order to save on fees and taxes. This is only possible if he is able to discontinue the patents in some countries without invalidating them in others. Therefore, it is imperative to a patent holder that the various patents are regarded in law as independent of each other. Otherwise, the termination and revocation of the patent in one country will entail automatically the invalidation of the patent in the other countries.

It is also admitted that the member states of the Convention must remain free to decide for themselves on matters such as patentability, duration of a patent, etc. and, therefore, the validity of a patent in one country should not be tied to other countries. Based on these and other arguments, the Paris Convention has introduced the standard of "independence of patents". It is interesting to note that since the examination of the patent applications in developing countries is not usually a comprehensive and thorough one, the application of such a standard could cause more damage to these countries than to the developed industrialised countries. That is to say, an invention which has been rejected in a developed country, because it does not meet the patentability requirements there, might be granted a patent in a less developed country with inadequate trained technical personnel to administer patent grants.

(e) Importation: Production Monopoly or Market Monopoly?

Since its early days, the Paris Convention explicitly has permitted importation of articles manufactured in any of the countries of the Union by the patentee into the country, where the patent has been granted, as sufficient defence against forfeiture of the product patent. A commonly mentioned reason for this provision is that, immediate working of the same invention, by the patentee himself or licensees, in all granting countries is not generally feasible or even possible because of lack of resources. A patent holder often needs to get more familiar with the market of the

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19 Article 4 bis(1) of the Convention provides that any patent applied for in one member States is deemed independent of patents obtained for the same invention in other countries, whether Union members or not.

20 Article 5A(1). Product patents are patents which are granted for inventions that appear in tangible form and consists of products e.g. new alloy such as machines, equipment, apparatus, devices, etc. The invention may reside either in an independent product or in a product which forms only a part of another product and may only be sold as a part of that other product. Process patent is generally a solution consisting of a series of steps for producing a product. It may consist of the new use of a known process or a known product. WIPO, Model Law for Developing Countries on Inventions, vol. 1, (Patents), Geneva, 1979, p. 57. Bogsch A. The First Hundred Years of the Paris Convention for the Protection of Industrial Property, Indus. Prop., (1983), p. 201
granting country. So the patentee must be given adequate time to test the market and organize exploitation, be it by himself or by licensees. In such circumstances, the importation of the patented articles from another country in which the patent holder is already manufacturing the invention has been held to be justifiable and should not entail revocation.\textsuperscript{21}

It has been observed that foreign technology holders, particularly transnational corporations, exploit the inventions mostly in the industrial countries and take patents in the developing countries just to obtain a monopoly in their markets and protect the company’s exports to the developing countries against imitators.\textsuperscript{22} In practice, such a monopoly acts as a means of eliminating competition and if successful discourages investment and the transfer of technology to the developing countries.\textsuperscript{23} The point here is that when a foreign patentee sets up a lucrative export market, it is unrealistic to assume that he would voluntarily give up the monopoly for production by him locally or by licence holders. Having been constrained to accept the existence of that provision in the Convention, developing countries expressed their concern that the ambiguous wording of the Convention encourages importation rather than foster the effective local working of inventions.

Developing countries asked the Convention Union for clarification whether

\textsuperscript{21} It should be noted that the provision does not applies in the case of importation of articles manufactured in non-member countries of the Union. Bodenhausen, op. cit. note 4, p. 69.


\textsuperscript{23} According to a study of the operation of the international patent system, in terms of the effects of the import monopolies, "such monopolies impose costs on developing countries in two senses. First, they inhibit domestic production and innovation within the developing countries and thus stifle the growth of those areas of patented, and patent-related, industry which could have been profitably set up in developing countries. Second, the monopoly over imports cut off competition even on the external trade side (unless there are close substitutes which can be imported without infringing the patent) and hence can be expected to lead to higher payments for imports than would be the case if competition in imports were to be allowed." UNCTAD, TD/B/C.6/AC.3/2, op. cit., note 14, para. 44; see also UNCTAD, \textit{The Role of the Patent System in the Transfer of Technology to Developing Countries}, TD/BC.6/16 Dec. 1975, p. 21.
mere importation constitutes working of the patented invention and sought appropriate safeguards in cases where the patent holder was content to import the patent goods rather than manufacture them locally. In response to the former, it was confirmed that, like other activities such as, offers for sale, sale and use of the patented product, importation also generally does not constitute working of the patented product. The WIPO Model Law which was based on the Stockholm Act of 1967 also provides that "importation shall not justify the non-working or insufficient working of the patented invention in the country."

With regard to appropriate safeguard, since importation is deemed as an example of "non-working", in the context of Article 5 of the Convention as a whole, the patent granting country is able to grant a compulsory licence, as some industrialised countries have explicitly stipulated in their own patent laws. It should be borne in mind, however, that the compulsory licensing system established by the Paris Convention, because of its many reservations seems to be not an efficient instrument to ensure working of patented technologies in the developing countries.


26 Bogsch, op. cit., note 14, p. 54. The Director General has also mentioned that, "there seems to be no doubt in anybody's mind that importation does not constitute working. The International Bureau has found no law, court decision or expression of opinion which would indicate the contrary". Ibid at 59.


28 See Article 48(3) of the U.K Patents Act of 1977. Among other grounds under which the compulsory licensing is imposed are where the patented invention is not being adequately worked within the U.K. and demand being met by importation.

29 First, the Paris Convention for granting of compulsory licences requires the expiration of three years after the granting of the patents and four years after the application of the patents, whichever period expires last. Second, the Paris Convention requires that a compulsory licence should be refused if the patent holder "justifies his inaction by legitimate reasons". Since the concept of "legitimate" has not been defined well, thus, the patentee can put would-be applicants for compulsory licences in immense difficulty to prove the failure to work of the patent. Third, a patentee whose patent has been granted to someone else by the competent authority, has still right to import the patented articles or license it to others to do so.
(f) **Importation of Patented Processes**

There is yet another aspect to the import monopoly provisions in the Paris Convention which deal with *patented processes*. A new article 5quarter which was introduced into the Convention at the Lisbon Revision Conference of 1958 states: "when a product is imported into a country of the Union where there exists a patent protecting process of manufacture of the said product, the patentee shall have all the rights, with regard to the imported product, that are accorded to him by the legislation of the country of importation, on the basis of the process patent, with respect to products manufactured in that country."

The main effect of the new article is that those countries which permit the *patent of a manufacturing process* must also protect the product where it is not manufactured in the country but is imported from a foreign country. As a result of such protection, the unauthorised use or sale of the products manufactured with the process either in the country or abroad and then imported is illegal.

Such a provision is crucial to the chemical and pharmaceutical industries where the protection of the processes of production is the key to their survival. Given the dominance of foreign oligopolies, particularly in pharmaceutical markets of most developing countries, it may be argued that in those countries like Iran which apply

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Fourth, forfeiture or revocation as a remedy for failure to work the patented technology in the country, is only permitted after the completion of compulsory licensing process. If after the granting of a compulsory licence, the patentee knew that his refusal to provide sufficient manufacturing know-how to the licensee would regarded as the "non-working" and his patent would be revoked, he would be under pressure to provide the needed know-how. One should not forget that in developing countries most of valuable patented inventions need additional manufacturing process or know-how to be worked industrially and commercially to the extent that manufacture the expected quality and quantity. That is why it has been concluded that, an import monopoly acts, in practice, as a means of controlling competition and as a result, it may discourage investment and the transfer of technology. UNCTAD, TD/BC.6/16, op. cit., note 23, p. 21; Penrose E., *International Patenting and the Less Developed Countries*, Eco. J., 1973, p. 777.

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30 Paris Convention, Article "5quarter".

31 Bogsch, op. cit., note 20, p. 201.
such a protection, control over the process is enough to give import monopoly and thereby total control of the domestic market in the patent granting country. This is provided, as is in the case of Iran, that the privileges of the patentee include sale and use as well. Consequently, developing countries recognised this provision as being in conflict with any attempt to eliminate the exclusive right of importation of products manufactured abroad by a patented process. To redress those shortcomings, developing countries proposed that either this Article should be omitted or not enforced and be allowed to lapse.

(g) Remedies Against Patent Abuse

As was indicated earlier, a patent right can be abused in several ways:

(i) by disclosing insufficient information about the invention;
(ii) by imposing excessive restrictive clauses in licensing agreements; and
(iii) by not working the invention commercially.

The Paris Convention has been most concerned with the latter. The common safeguards which almost all national patent laws have introduced to avert the non-working of patents are compulsory licences and forfeiture or revocation of patents. Article 5 of the Paris Convention which deals with the right of member States to prevent the abuse of patent rights, sanctions the grant of compulsory licences with some important restrictions. The question, however, is how to design these controls

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34 See WIPO, *Diplomatic Conference on the Revision of the Paris Convention* (Geneva, February 4 to March 4, 1980): Basic Proposals (Drafts Approved or Forwarded to the Diplomatic Conference by the Preparatory Intergovernmental Committee and other Proposals Referred to in the Provisional Rules of Procedure of the Diplomatic Conference), Memorandum by the Director General, Doc. PR/DC/3 of 25 June 1979, p. 248. (hereinafter cited as Basic Proposals).
and safeguards against patent abuses under the Paris Convention.

(h) Rights of the States to Control Abuse of the Monopoly

According to Article 5 of the original text (1883) of the Paris Convention the patentee had "the obligation of working his patent conformably to the laws of the country into which he has introduced the patented articles." Corollary to this was the fact that, states in accordance with their national patent legislation could grant any measures such as compulsory licences or revocation to deter the abuse of monopoly rights. The only limitation imposed by the Convention which has remained almost unchanged to date was that, the importation of articles manufactured in any other member countries could not justify revocation. It was during the later conferences to update the Convention that the obligation-to-work principle as incorporated in the original Convention began to be watered down.

The Washington revision conference of 1911 amended the original text of Article 5 and placed two important restrictions on the right of countries to revoke patents for failure to work. First, the patent could not be forfeited for non-working until "after a period of three years from the date of filing the application". Second, the patent could be revoked, after that period -3 years- has expired and only in those cases in which the patentee could not "justify his inaction". Accordingly, under the Washington Act of the Convention, forfeiture or revocation of the patent was still the chief remedy against non-working.

35 See Article 5 of the Original text (1883) of Paris Convention, reprinted in Treaties and Others International Agreements of the United States of America, compiled under the direction of Charles I. Bevans, 1776-1949, p. 83.

36 Ibid, Paragraph (1) of Article 5. It reads, "the introduction by the patentee into countries where patent has been granted, of articles manufactured in any other States of the Union, shall not entail forfeiture".

37 See Bodenhausen, op. cit. note 4, p. 68.
At the Hague revision conference of 1925, Article 5 has undergone substantial changes. For the first time the concept of compulsory licences was recognized and, at the same time, it was acknowledged that the member States have the right to take legislative measures to prevent patent abuses. Article 5 of the Convention specifically mentions "failure to work" as an example of such abuses.\textsuperscript{38} According to a new paragraph, i.e., paragraph (3), the above mentioned necessary legislative measures "shall not provide for forfeiture of the patent unless the grant of compulsory licences is insufficient to prevent such a buses".

At the London revision conference of 1934, another restriction was placed on the right of member States to apply the sanction of revocation. Paragraph (4) of Article 5A provided that "no proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory licence".

While Article 5A was again amended at the Lisbon revision conference of 1958, the Stockholm revision conference of 1967 did not amend that Article of the Convention. So, those member countries that have ratified the amendments of Lisbon conference have to comply with the following minimum standards and incorporate them in their national laws:

A. Forfeiture of the patent shall not be provided for except in cases where the grant of compulsory licences would not have been sufficient to prevent the said abuses. (e.g. failure to work).\textsuperscript{39}

B. No proceedings for forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory licence.\textsuperscript{40}

C. A compulsory licence may not be applied for on the ground of failure to work or

\textsuperscript{38} See Article 5(2) which reads as:

\textit{Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licences to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example: failure to work.}

\textsuperscript{39} Article 5(3) of the Stockholm revision of 1967.

\textsuperscript{40} Ibid.
insufficient working before the expiration of a period of four years from the date of filling of the patent application or three years from the date of the grant of the patent, whichever period expires last.\textsuperscript{41}

D. Compulsory licence shall be refused if the patentee justifies his inaction by legitimate reasons.\textsuperscript{42}

E. Such a compulsory licences shall not be exclusive and shall not be transferable, even in the form of the grant of the sub-licence, except with that part of the enterprise or goodwill which exploits such licence.\textsuperscript{43}

F. Importation by the patentee into the country is permitted where the patent has been granted of articles manufactured in any of the countries of the Union without forfeiture of the patent.\textsuperscript{44}

These revisions make it clear that countries of the Convention Union are permitted to take the following steps under their national laws to prevent patent abuses:

- grant compulsory licences on the ground of failure to work or insufficient working shall be "non-exclusive" and "non-transferable",\textsuperscript{45} and after the expiration of three or four years;

- revoke patents after the lapse of two years from the granting of first compulsory licence when such licence has been found to be insufficient to curb patent abuses; and

- give to the patentee an opportunity to avoid the consequences of non-working of his patent if he shows that he had legitimate reasons for his inaction.

\textsuperscript{41} Ibid, para. 2.

\textsuperscript{42} Ibid. The legitimate reasons may be based on the existence of legal, economic or technical barriers to utilisation, or sufficient utilization of the patented technology in the concerned country. See Bodenhausen, op. cit., note 4, p. 73.

\textsuperscript{43} Ibid.

\textsuperscript{44} Article 5(1).

\textsuperscript{45} It may be recalled that before the Lisbon Conference of 1958 it was possible for member States to grant exclusive non-voluntary licences on the ground of failure to work or insufficient working.
As a result of these requirements, the grant of compulsory licences became the major measure to combat the non-working or insufficient working of patents and other safeguards such as revocation or forfeiture on those grounds became subsidiary measures. 46

With every revision conference, as was examined above, more restrictions have been placed on the freedom of member States against non-working. However, any country that is a party to the Convention is not bound to ratify the amended Convention. The old text remains in force, thus, for those countries that have not ratified the new text of the Convention. Hence, at any given time there may be several regimes in effect depending upon the willingness of the members to ratify the latest revised text. 47

(i) Permission to Legislate

It should be noted that despite the provisions in paragraphs (2), (3) and (4) of Article 5 of the present (Stockholm) text of the Convention, the member States of the Convention have the freedom to "legislate" for themselves. The member States, as interpreted by the two Director Generals of WIPO, may provide for other types of compulsory licences or different remedies on other grounds: such as public interests, unreasonable terms for patent licensing, insufficient quantities of the patented product and when the patentee demands excessive prices. 48 Such compulsory licences may

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47 As to the relations among countries not bound by the same Act, see Bogsch, op. cit., No. 17, pp. 240-243; see also Lacina L., Problems of Conventional Relations Between Countries According to the Different Texts of the Paris Convention, Ind.l Prop. vol. 5, 1966, pp. 257-263.

48 The grounds are:
1. where "the public interest is deemed to require such measure" even in the absence of a claim of monopoly abuse- for instance, grounds such as public health, national security, national or international planning and "dependent patents". If in these cases compulsory licence is granted the time-limit also can be disregarded;
be granted without any time-limits.\(^{49}\)

If Article 5 is interpreted in this way,\(^{50}\) the Paris Convention should be regarded as very flexible\(^{51}\) because countries of the Paris Union, would have the right to take steps not only to prevent the abuse of non-working, but also to prevent abuses resulting from other transactions and activities of the patent holder.\(^{52}\) This is particularly important for developing countries because one of the public interests is national economic development.

The degree of flexibility under the Paris Convention, enables member states

\(^{49}\) Bogsch has expressed the view that "in other cases of abuse (for example sale of the patented product manufactured in the country at an abusively high price or when a ground of public interest justifies such grant (for example public health, defence, development of national economy) compulsory licences may be granted without any time limits." Bogsch, Ibid, 14, paras. 52-53.

\(^{50}\) It is worth mentioning here that the interpretation of Article 5A given by the Director Generals of WIPO is not legally binding upon Convention Members. However, such interpretations carry considerable authority and are in line with the patent laws of some member States. For instance, Spanish Patent Law of 1986 which is claimed to be on the basis of the Convention consists of granting compulsory licenses on grounds of public interests at any time without any time-limit. See Casedo Cevino A., Obligation to Work and Compulsory Licensing in the New Spanish Law, Indus. Prop., vol. 26, 1987, pp. 333-346.

\(^{51}\) Kunz-Hallstein H. P., Patent Protection, Transfer of Technology and Developing Countries: A Survey of the Present Situation, 6 IIC, Max Planck Institute, Munich, pp. 427-455, p. 443. The huge economic, scientific and technological gap between the developed and developing countries requires that international accords such as the Paris Convention be flexible enough. The national industrial property laws, however, must bring about certainty in order to encourage investment, national or foreign, in R&D, innovative activities and transfer of technology. See infra Chapters Nine and Ten.

\(^{52}\) Whereas the word "abuse" has not been defined in the text of the current Paris Convention, but it implies that the patentee has used the exclusive rights conferred by the patent in a manner which involves a disregard of, or damage to the interests of the public or the interests of competitors. Thus, the failure to work the patent which indicated as an example amounts to an abuse rather than a mere failure to exploit the invention. Ladas, op. cit., note 1, p. 528.
to adopt, in addition to granting of various types of compulsory licences, other national legal safeguards against monopolies and restrictive business practices. Member states have freedom to enact domestic competition and technology transfer laws with provisions prohibiting restrictive clauses in licensing agreements likely to impede competition and domestic economic development. Likewise, the implementation of appropriate controls and procedures for approval of industrial property licensing agreements is not regarded as a weakening of the international legal system of industrial property introduced by the Paris Convention.\(^5^3\) With regard to the non-working abuse and the act of mere importation of the patented invention, however, compulsory licences remain to be the main safeguard against such abuses.

The interpretation of Article 5 given by the Directors General of WIPO, however, cannot easily be read into the wording of the Convention. Developing countries, therefore, called for including a specific provision in the Convention allowing member States to provide for other measures when overriding grounds of public interests justify such measures.

II. The New International Economic Order and Revision of the Paris Convention

After the Second World War, the course of events led developing countries to call for a New International Economic Order (NIEO). In 1974, the Sixth Special Session of the United Nations General Assembly produced two important documents which paid special attention, inter alia, to the problems of transfer of technology: The "Declaration on the Establishment of a New International Economic Order" and the "Programme of Action on the Establishment of a New International Economic Order." In the Declaration, the members of the United Nations solemnly proclaimed their united determination to work the establishment of a NIEO based on: "equity, sovereign equity, interdependence, common interests and co-operation among all states which shall correct inequalities and redress existing injustices, make it possible to eliminate the widening gap between the developed and developing countries and ensure steadily accelerating economic and social development and peace and justice for present and future generations."

According to the Declaration, one of the basic principles of the NIEO should

54 Developing countries, for instance, criticised the world economic order that was intended to liberalise trade among nations and to abolish national restrictions. They maintained that their economic and industrial development were not taken into account in the formation of such an economic order. Developing countries, therefore, demanded a mixed economic order - a mixture of market forces, general rules and discretionary interventions, whose prime purpose is economic development of developing countries. For a detailed account of the NIEO see Murphy C. N., What the Third World Wants: An Interpretation of the Development and Meaning of the NIEO Ideology, Int'l. Q., vol. 27, 1983, pp. 55-76; Ferguson C. C., New International Economic Order, Univ. Illinois Law Forum, No. 3, 1980, pp. 693-705; Horn N., Normative Problems of a New International Economic Order, J.W.T.L., vol. 16, 1982, pp. 338-351; Hossain K. (ed.), Legal Aspects of the NIEO, 1982; Corea G., Need for Change- Towards the NIEO, 1980.

55 United Nations General Assembly, Sixth Special Session, Res., 3201(S-VI) of May 1, 1974. (hereinafter called Declaration)

56 United Nations General Assembly, Sixth Special Session, Res., 3202(S-VI) of May 1, 1974. (hereinafter called the Programme of Action)

57 See the Declaration Preamble.
be "giving to the developing countries access to the achievements of modern science and technology and promoting the transfer of technology for the benefit of developing countries." 58

The Programme of Action was intended to make operational the principles of the NIEO through a wide range of measures. Part IV of the Programme of Action has been devoted to the transfer of technology issues. 59 In this regard, the Programme of Action recommended measures to improve the terms and conditions of technology transfer to developing countries by reforming the international legal and juridical framework governing the flow of technology in general and intellectual property rights in particular.

Yet another important Resolution of the General Assembly of the United Nations regarding the transfer of technology to developing countries is: "The Charter of Economic and Duties of States." 60 The Charter, among other things, stated that, State has the right " to benefit from the advances and developments in science and technology for the acceleration of its economic and social development." 61

After the adoption of the Declaration and the Programme of Action by the United nations and following the adoption of another relevant Resolution 62 the revision of the Paris Convention in favour of developing countries came to be seen as an important element in the establishment of the NIEO, which would contribute to the reform of the legal framework governing the flow of technology.

58 See Declaration.

59 The Programme of Action also called upon the international community to make all efforts to encourage the industrialization of developing countries. The Programme of Action, Part II, par. 1.


The United Nation Commission on Trade and Development (UNCTAD) -as one of the most active organs of the United Nations that pursuing the objectives of the NIEO- engaged in revising the Paris Convention; in drafting of an International Code of Conduct on the Transfer of Technology\textsuperscript{63}; and in drafting of the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices.\textsuperscript{64}

(a) The Revision of the Paris Convention

As was mentioned above, in the sixties, the effects of patents on the economic and industrial development of developing countries came under serious scrutiny by the General Assembly of the United Nations. Several studies were made and the reports attributed to patent protection a positive and necessary role in the flow of technology to developing countries and regarded it as useful in creating favourable conditions for foreign investment and for local innovation\textsuperscript{65}. But, the reports also were critical of the basic principles underlying the existing international patent system and submitted proposals for a revision of the Paris Convention.\textsuperscript{66}

A frequent complaint of developing countries was that the Paris Convention and its successive revisions established standards of international patent protection,

\textsuperscript{63} See Chapter Seven.


\textsuperscript{66} UNCTAD, TD/B/C.6/AC.2/3, op. cit., note 24. Brazil which is the only developing country that has remained in the Paris Convention since its inception, first raised the question of bringing the patent system into line with socio-economic conditions of developing countries at the United Nations General Assembly of 1961. See UNCTAD, UN. Doc. 1/3861/Rev. 1, ibid, p. 35.
which were not geared to their domestic development needs. Developing countries argued that the revisions of the Convention until then have tended to strengthen the rights of patentees and to tilt the balance in favour of industrialised producer countries.

Developing countries maintained that the revisions were very weak on clarifying their obligations to safeguard the national interests of developing countries. Of course, it is hardly surprising, because the purpose of the revision of the Convention is to "improve" the system of the Union. Developing countries generally put greater emphasis on their public economic interest as opposed to the private interest of patent holders, on more accountability by them, on absolute requirement of the actual working of patents, and on preferential treatment including extended period of priority only for local patent holders. For these reasons developing countries called for the revision of the Paris Convention.

The proposed revision of the Paris Convention was influenced heavily by the technological and economic needs and aspirations of the developing countries. The statement of objectives in the terms of reference for the revision emphasised:

- the establishment of a new economic order in the world in which social justice prevails and economic inequalities between nations are reduced;
- the role of inventions in the transfer of technology and industrialisation;

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70 See Article 18 (1) of the present (Stockholm) text of the Convention.

- a proper balance between economic and social needs of countries and the rights granted by patents;
- the promotion of the actual working of inventions in each country itself;
- the definition of the principal obligations and rights of the owners of industrial property rights to facilitate the transfer of technology from industrialised to developing countries under fair and reasonable terms;
- the encouragement of inventive activity in the developing countries;
- the improvement of the capability of developing countries in screening and controlling licensing contracts; and
- the enabling of member countries to take all appropriate measures to prevent abusive practices in the field of industrial property. 72

72 The full text of Declaration of the Objectives of the Revision of the Paris Convention is as follows:

1. The revision of the Paris Convention should aim to contribute to the establishment of a new economic order in the world in which social justice prevails and economic inequalities between nations are reduced.

2. Industrial property, in particular as it relates to inventions, should constitute an element in the process of the transfer of technology and should contribute to the achievement of new technological advances. It should serve the goals of a new economic order, in particular through the industrialization of developing countries.

3. Thus, any new orientation in the industrial property field, in particular any revision of the Paris Convention and the model laws for developing countries, should be undertaken taking into account inter alia the following objectives:

(i) to give full recognition to the needs for economic and social development of countries and to ensure a proper balance between these needs and the rights granted by patents;
(ii) to promote the actual working of inventions in each country itself;
(iii) to establish the principal obligations and rights of the owners of industrial property rights;
(iv) to facilitate the development of technology to developing countries and to improve the conditions for the transfer of technology from industrialised to developing countries under fair and reasonable terms;
(v) to encourage inventive activity in the developing countries;
(vi) to increase the potential of developing countries: in judging the real value of inventions for which protection is requested; in screening and controlling licensing contracts; in improving information for local industry;
(vii) to contribute to the building of the institutional infrastructure in developing countries designed to serve the above purposes, particularly the modernisation or creation of industrial property office, technical documentation centres and information services at the disposal of national industry and national inventors;
(viii) to enable member countries to take all appropriate measures in order to prevent abusive practices in the field of industrial property;
(ix) in general to ensure that all forms of industrial property, including trademarks, be designed to facilitate economic development and to ensure cooperation between countries having different systems of industrial property protection.
Pursuant to these objectives a draft of basic proposals was prepared\textsuperscript{73} and submitted to the Diplomatic Conference for the revision of the Paris Convention.\textsuperscript{74} Four Diplomatic Conferences for the revision of the Paris Convention were held from 4 February 1980 to 24 March 1984, and the fifth one was supposed to be convened as soon as prospects existed for positive results.\textsuperscript{75}

Some of the proposals with minor changes were approved but others, particularly Article 5A, did not receive the needed support to justify another diplomatic conference. It is worth mentioning that Article 5 has been the most debated and controversial provisions of the Paris Convention. It sets the minimum standards regarding the compulsory licenses and revocation of patents that the member States have to comply with and implement in their national laws. Penrose pointed out that:

4. As far as revision of the Paris Convention is concerned, consideration is to be given to certain defined cases in which exceptions and/or correctives to the principles of national treatment and independence of patents, and preferential treatment for developing countries, should be allowed.

5. One of the principal immediate and continuing tasks with regard to industrial property should be, by establishing within the Paris Union and by strengthening within WIPO special services for developing countries, to provide in the shortest possible time the necessary technical assistance to help developing countries to strengthen their scientific and technological structure, and to train their specialists.

6. Consideration should be given to the question of equality of treatment for all existing forms of protection of industrial property.

7. International treaties within the competence of WIPO, in particular the Paris Convention, should be framed in the light of the above objectives, leaving a maximum degree of liberty to each country to adopt appropriate measures on the legislative and administrative levels consistent within its needs and social, economic and development policy.

8. The principal lines of this declaration should be considered for incorporation as a part of any Preamble to the Paris Convention in order to redefine industrial property concepts in an effort to better meet the needs and aspirations of developing countries. See WIPO, Diplomatic Conference on the Revision of the Paris Convention: Basic Proposals, Doc. PR/DC/3, op. cit. note 34, pp. 7-8; see also Indus. Prop., 1976, p. 47.

\textsuperscript{73} See Basic Proposals, Ibid., pp. 66-75; see also Indus. Prop. 1979, pp. pp. 243-276.

\textsuperscript{74} See Indus. Prop., 1976, p. 213.

\textsuperscript{75} WIPO, Diplomatic Conference on the Revision of the Paris Convention, (Fourth Session), Geneva, February 27 to March 24, (1984) WIPO Doc. PR/DC/57. The four Diplomatic Conferences were held as follows: the first from 4 February to 4 March 1980 in Geneva; the second from 28 September to 24 October 1981 in Nairobi; the third from 4 to 30 October 1982 in Geneva; and the fourth from 27 February to 24 March 1984 in Geneva.
"these provisions have had a turbulent history because they touch directly on the conflict between the interests of the national economy as a whole and the interest of the individual patentee in obtaining the maximum return from his patent." 76

The proposed Article 5A is much longer with more provisions than the Stockholm (present) text. In the proposed Article 5A several demands of developing countries have been expressed. For example, it emphasises and makes clear that importation "does not constitute working of the patented invention". 77 Countries of the Union have the right to provide in their national laws for possibility of exploitation, "at any time" of the patented invention where such exploitation is in "the public interest." 78 Countries of the Union may grant "exclusive non-voluntary licences in special cases where such exclusive licences are necessary to ensure local working". 79 Paragraph (8) of the proposed Article 5A dealing with non-working or insufficient working which can be applied only by developing countries: they have the right to forfeit or revoke any patented invention that is not worked, or is not sufficiently worked in the country. 80 Countries of the Union have the right to adopt legislative measures to prevent abuses resulting from the exercising of the rights granted by the patent. 81

After almost 10 years of preparatory work and tense negotiations, although industrial countries had succeeded to modify the draft proposal and to put some

76 Cited from UN. Doc. E/3861/Rev. 1, 1964, op. cit. note 65, para. 327. See also Ladas, note 1, p. 519. He observed that the history of this article is, in a sense, the history of the Paris Union. Ibid.

77 Basic Proposals, op. cit. note 72, p. 59, para. (1)(b).

78 Ibid, para. (6). Public interest includes, "national security, nutrition, health or the development of other vital sectors of the national economy". Ibid.

79 Ibid, para. (6).

80 Ibid, para. (8)(b).

81 Basic Proposals, par. 2(b).
restrictions for granting an exclusive non-voluntary licence in the text, the proposals of the developing countries eventually were not accepted and no revised version of the Paris Convention has been adopted.

The Group B countries argued that the possibility of granting exclusive non-voluntary licences should not be given to the Paris Convention. They reasoned that the exclusive non-voluntary licence would be a measure more radical than forfeiture, because if the patent was forfeited, the patentee like anybody else could use the invention but when an exclusive non-voluntary licence was granted the patentee also could not use his invention.

On the other hand, developing countries believed that in certain cases granting of exclusive non-voluntary licences is necessary. For instance, a patentee, which might be a powerful Transnational Corporation, would be in a position to compete with the non-voluntary licence and could face the latter out from the market. Accordingly, while developing countries placed significant value for the granting of exclusive non-

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82 The industrialised countries proposed paragraph 8(abis) and reluctantly was accepted by developing countries. The paragraph reads as follows: "However, a non-voluntary licence may be exclusive for a period of up to four and a half years in the case where it is determined by the national authority, competent to grant non-voluntary licences, that there are circumstances constituting abuse of a patent right and that the non-working or insufficient working is one of the constituent elements of the abuse, subject to a condition that the patent may not be forfeited or revoked for non-working or insufficient working for a further period of eighteen months after the expiration of the exclusive licence." For the various proposals of Article 5 and 5quarter, see WIPO Doc. No. PR/DC/INF/51, 1984.

83 It is worth mentioning that according to the standard practice of the United Nations for conducting negotiations and debates, counties were classified into three main groups of States: Group B, consisting of the OECD countries; Group D, consisting of the former socialist countries of Eastern Europe; and Group of 77, consisting of the developing countries of Africa, Asia and Latin America.

84 WIPO, Diplomatic Conference on the Revision of the Paris Convention, (Geneva, February 4 to March 4, 1980): Final Summary Minutes, Doc. PR/SM/3 of 12 September 1983, pp. 90-95. According to the Basic Proposal, the possibility of granting exclusive non-voluntary licences would be for all member States in special cases where exclusive licences were necessary to ensure local working. Basic Proposal, op. cit. note 72, para. 6.

85 Ibid.

voluntary licences and made enormous efforts to preserve such a right for themselves, industrialised countries in particular the United States of America maintained that the application of such a right, even with the certain restrictions provided in the paragraph 8(abis), is regarded as confiscation of private property and deprives the inventor of his individual right. 87

The replacement of principle of unanimity for revising the Paris Convention by a principle of qualified majority was another basic reason for frustrating the protracted attempt to revise the Paris Convention. 88 Traditionally, all provisions of the Convention were adopted on the basis of unanimous vote. Developing countries at the first session of the Diplomatic Conference argued that the Paris Convention itself does not provide for the requirement of unanimity. 89 They stated that the unanimity principle was an outdated-nineteenth Century phenomenon. 90

Developing countries found it unfair to allow a member State of the Union to prevent the revision of the Convention. 91 Accordingly they proposed that the revised text of the Convention should be adopted by majority of two-thirds. This proposal also was not accepted by the Group B countries, particularly, the United States. 92

In sum, the industrialised countries concluded that these changes eroded and weakened the international standards of industrial property protection and were


89 Ibid, para. 65.

90 Ibid.

91 Ibid, para. 68.

inconsistent with the Paris Convention. They referred to the wording of Article 18 of the Convention which permits only revisions made "with a view to introduction of amendments designed to improve the system of the Union".93 On the other hand, several years of negotiations made developing countries aware of the flexibility of the Paris Convention which allow them to shape their patent system in such a way as to enable them to achieve their technological objectives, without violating the Paris Convention.

93 Ibid; Paris Convention, Article 18(1).
III. International Trade and Intellectual Property Rights

General

In the interdependent world of international trade, large companies find it necessary to have footholds in markets world wide. This is only possible if there are no barriers to international trade and access to the international market is available to all countries of the world. General Agreement on Tariff and Trade (GATT) entered into force for original signatories on 1 January 1948 to provide an international trading system based on open markets and fair competition.

In the eighties, intellectual property became a trade issue and calls for free unregulated trade in intellectual property rights were resisted by the industrialised countries as a category of unfair trade. Consequently, in September 1986, when the GATT contracting parties met in Punta Del Este, Uruguay, to launch multilateral trade negotiations on goods and services the negotiations included Trade-Related Aspects of Intellectual Property Rights (TRIPS). Seven years later, on 15 December 1993 the Uruguay Round was successfully concluded.

The Uruguay Round established the "World Trade Organisation"(WTO) as the instrument to implement the agreements reached. GATT becomes a permanent world trade body covering goods, services and intellectual property rights with a common disputes resolution procedure. The intellectual property agreement in the Uruguay Round package is clearly a triumph for the industrialised countries. The industrialised countries succeeded in bringing the intellectual property laws of developing countries in line with the standards acceptable to the industrialised countries. Developing

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94 GATT Focus Newsletter, 1, 1986.

95 Final Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods. MTN/FA II-AIC, Article 27. (hereinafter cited as the TRIPS)
countries are obliged to incorporate the decidedly strict rules of the international system in their domestic intellectual property laws.  

(a) The Reasons for Addressing Intellectual Property Issues in GATT

As has been examined above, in 1974 two important resolutions by the United Nations, called for reforming the international legal and juridical framework governing the flow of technology in general and intellectual property rights in particular. Until 1984, therefore, immense efforts were made by UNCTAD and developing countries through piece-meal revisions of the Paris Convention to strike a proper balance between their public interests and those of patent holders. The failure to revise the Paris Convention largely reflects the conflict between demands of the developed countries for a stronger international patent system and interests of developing countries that view acquisition of technology as a fundamental to their progress.

This experience according to Kunz convinced the U.S Government that further improvement of international protection of intellectual property should be made through a more comprehensive world wide forum: the multilateral trade negotiations of the GATT. Putting aside the theoretical arguments, the following are the main concerns of industrial countries, particularly the U.S, in their search for a stronger

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96 The accord is regarded as the most important international agreement on intellectual property in this century, Financial Times Tuesday, March 29, 1994, p. 4. For a pessimistic view regarding the successful implementation of the TRIPS Agreement see The Economist, December 4, 1993, p. 26. Professor Jagdish Bhagwati points out, such "compulsory liberalisation in areas such as intellectual property tends to yield disappointing results, because countries are less enthusiastic about enforcing rules imposed on them against their wishes than they are about enforcing ones they have adopted willingly." Ibid.

97 See supra, notes 55, 56 and 60.

98 Kunz-Hallstein, op. cit. note 87.

99 As stated earlier while to most industrial countries the protection of intellectual property is regarded as "a fundamental right comparable to rights to physical property", to most non-industrial countries the protection of those rights is regarded as an economic policy question "reflect a development strategy based on making technology available within the domestic economy at the lowest possible short-term price." Gadbaw & Gwynn, supra, Chapter Three, note 27, p. 2.
level of international protection for intellectual property through GATT.

It has been stated that the role of information products in international trade has increased significantly since 1948 when the GATT entered into force. This has changed the composition of U.S. trade. Between 1947 and 1986, U.S. exports containing valuable intellectual property (books, chemicals, movies, records, electrical equipment, and computers) increased from 9.9% to 27.4% of all U.S exports. Alongside this, the U.S. industries received more than $8 billion per year from the royalties of intellectual property licensing. Thus, there is a perception that U.S. competitiveness in such industries in world markets is dependent very much on a strong international intellectual property protection regime.

Another reason behind involving the GATT with the protection of intellectual property is the issue of piracy by "free riders" and trade in counterfeit goods. This line of argument contends that improved international communications have created an international market-place and while companies seek to develop foreign markets for their protected goods they inadvertently create opportunities for unauthorised copying of those same goods. In addition, the relatively straightforward and inexpensive technologies for the reproduction of audio and videotapes, and also radio and television broadcasts have increased the volume of pirated works. Furthermore, while the cost of research and development has steadily increased, especially in some high technology industries such as semiconductor industry, periods for obtaining a return of the investment have increased while at the same time product life cycle has been

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100 Ibid, p. 4.


102 O'Connor D. H., TRIPS: Licensing Challenge, Les Nouvelles, March 1995, pp. 16-18, p. 17. It has been argued that, many of the developed countries are increasingly investing in knowledge-base industries, therefore, "the further a country is involved in knowledge-based industries by definition, the more important intellectual property and its protection is to them." Ibid.

103 Gadbaw & Gwynn, op. cit., note 99, p. 4.
reduced.  

This also has led to entrepreneurs in the business of piracy of intellectual property rights, since copying a product saves the costs of research and development. As a result of the trade in counterfeited goods, U.S. exports of the genuine article to the world markets have suffered because importers prefer to buy the cheaper goods from pirate-entrepreneurs. The U.S. International Trade Commission has estimated that unauthorised copying of U.S. products throughout the world cost the U.S. manufacturers more than $40 billion per year. To deal with piracy and weak protection of intellectual property rights in other countries the U.S. Government during the Regan presidency decided to act unilaterally by enforcing the so-called Super 301 trade law. Eventually, U.S. took the position that the Paris Convention and other present intellectual property treaties are not responsive enough and sufficient "to stop the extensive worldwide trade losses to world economies caused by counterfeiting and piracy". These problems, thus had to be addressed and determined in the context of a broader institution such as GATT.

Furthermore, certain aspects of some new technologies such as computer software, semiconductor chips, and biotechnology prevent them from being fitted within any of the existing mechanisms for intellectual property protection.

The increasing ability of other countries, including developing countries, to

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manufacture many goods which they previously imported and their growing capacity
to penetrate distant markets for traditional industrial products has forced the developed
countries to rely more heavily on their comparative advantages in the production of
intellectual goods than in the past.\textsuperscript{109} Accordingly, U.S. and other industrialised
countries see the intellectual property rights protection under GATT as the best means
to open the markets of developing countries which are beginning to compete with the
industrialised countries which have much stronger capital formation power and
technological capabilities, adequate infrastructure facilities, efficient transport and
distribution system, and about 200 years head-start in experience of manufacturing and
trade.

(b) Developing Countries and Intellectual Property Issues in GATT

Developing countries reacted initially with outright opposition. While they,
notably Brazil and India, were prepared to examine the trade effects of counterfeiting
goods, they resisted any extension of the GATT negotiations into an exercise to set
standards of protection of intellectual property rights or to attempt to raise the level
of such protection beyond that provided under existing multilateral agreements through
further strengthening of enforcement procedures. They also pointed out the
jurisdictional inadequacy of the GATT as a forum for a broad debate on intellectual
property rights.\textsuperscript{110}

However, the views of the developing countries were seldom seriously

\textsuperscript{109} Such a shift in share of wealth from developed nations to developing nations has been recognised
by recent estimations. According to O'Connor, "in 1990 the OECD countries accounted for 54% of
the world GDP and that by the year 2010 they will only account for 38%." O'Connor, op. cit.,
note 102, p. 16.

\textsuperscript{110} Primo Braga C. A., \textit{The Economics of Intellectual Property Rights and the GATT: A View
considered in the GATT negotiations. There were also perceptions among some developing countries that they would gain more market access for their agricultural and textile products, and that the strong intellectual property protection will attract foreign investment. Thus, the non-industrial member countries of GATT grudgingly accepted the GATT provisions. One also should not underestimate the "increasingly aggressive arm-twisting [pressure particularly through the Super 301 trade laws] by the U.S." The Super 301 Trade and Omnibus Act calls for extraterritorial protection of intellectual property rights. The unilateral trade sanctions, therefore, may be exerted against countries that do not protect sufficiently the intellectual property rights.

(c) New Changes

The TRIPS Agreement addresses certain issues relating to intellectual property rights which are not covered by the Paris Convention. The Agreement provides for new high international standards for the protection of intellectual property rights of all kinds -including patents for processes and for products, for biotechnology and for micro-organisms, and copyrights for computer programs and integrated circuit layout designs- and for the protection of trade secrets.

111 Mahatir Mohammed, Prime Minister of Malaysia was quoted as saying that: "in the new GATT negotiations [Uruguay Round] developing countries were only listeners as if they did not exist. Business Times of koalalampor, August 16, 1996, reprinted in Salam, Teheran, No. 1501, August 17, 1996, p. 1. (in Persian)


113 Jackson, Ibid.

114 Financial Times Tuesday March 29 1994, p. 4.

115 For a detailed account of the significance of the Super 301 Trade and Omnibus Act of the US see Judith H. Bello & Allan F. Holmer, op. cit. note 107.

116 TRIPS Agreement, Articles 27 and 39.
This provision is one of the major concessions of developing countries. The Paris Convention did not commit its members to grant patent to all fields of technology. The selective exclusion of technological fields from patentable subject-matter was an instrument by which the members could protect their infant industries and reduce the transfer of national wealth to foreign patentees. At the time the Uruguay Round started, a considerable number of developing countries did not confer patents to pharmaceuticals, plant varieties and computer software.

The Patentee’s exclusive right to import the patented product was recognised. But contrary to the doubts raised on this issue by some scholars, the TRIPS has not changed the position under Article 5A of the Paris Convention. Although Article 27 of the TRIPS provides that patents shall be available and patent rights enjoyable without discrimination and whether products are imported or locally produced, this provision should not be interpreted to mean that patentees may no longer be penalised if they do not work patents locally.

The heading of Article 27 is "patentable subject matter", that is, what should be or should not be patentable and the grounds of discrimination recognised for refusal to grant patents. Article 27 also means that the fact that a product is imported or locally manufactured should not affect the right to obtain a patent. More importantly, neither Article 31 of the TRIPS on compulsory licenses, nor Article 32 on revocation/forfeiture -common penalties in many national laws against patentees who do not work their patent- makes any reference to the annulment or otherwise of the local working requirement. It is suggested that, since the consequences of changing


118 TRIPS, Article 28 (a). The Article reads: "where the subject matter of a patent is a product, a patent shall confer on its owner the exclusive rights to prevent third parties not having his consent from the acts of: making, using, offering for sale, selling, or importing for these purposes that product."

the patentees right to import would be far reaching, such a change would have been brought about by a specific provision.

The Agreement further requires member states to protect products obtained directly from a patented process. The introduction of process patent for pharmaceutical products has already been regarded as a cause of concern. "If a new and more efficient technique were to be invented for producing an off-patented drug, that process could be patented: the new product might then be in a dominant market position."

There will also be certain limits on compulsory licensing of patented products by Governments. The TRIPS subjects all compulsory licenses to conditions such as non-exclusivity, equitable compensation, termination on change of circumstances, judicial review, and restrictions on the exportation of the resulting products. For the first time in the history of the international protection of intellectual property rights, trade secrets are protected from unauthorised disclosure and patent protection has been fixed for a uniform term of twenty years.

What is clear from the changes wrought by the agreement on intellectual property rights within the umbrella of GATT is that its high standards ignore the

120 TRIPS, Article 28(1)(b). See also Article 34(1) that reverses the burden of proof in actions for the infringement of process patents.

121 World Health Organization, op. cit. note 112, p. 36 and 37.

122 TRIPS, Article 30 solemnly declares that states "may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.

123 TRIPS, Article 31(a-h).

124 TRIPS, Article 39.

125 Ibid.
technological and developmental requirements of developing countries. Even the principle of preferential treatment for least developed countries, which was a well-known principle of GATT, has not been respected. Accordingly, the acquisition of foreign patented technology by developing countries through mechanisms other than imports or licensing agreements is regarded as unlawful and causes loss for foreign technology suppliers.

The strengthened regime for intellectual property rights envisaged in the TRIPS Agreement will cost developing countries more in the short term than possibly in the long term. This is mainly because developing countries are users rather than generators of technological innovations. Thus, the new high standards of TRIPS, at least in the short term, will mean for them: larger costs in the form of increased royalty payments to foreigners; the corresponding loss of investment opportunities in domestic research and development; increase in prices of products manufactured under licence or imported; greater dependence on imports in general; and significant administrative costs to legislate and enforce the TRIPS provisions.

In the longer term, however, developing countries may have the opportunity

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126 The Director General of the WIPO has been quoted as saying that the WIPO did not have any role in the enactment of the TRIPS, and that in some aspects the TRIPS Agreement is not in conformity with the WIPO's objectives. Radjivis Centre, The Role of Intellectual Property in the Development Process, proceedings No. 5, 1996, quoted by Miremadi T., TRIPS, Pol. and Eco. ETTELA'AT, No. 107-108, 1996, pp. 140-149, at 148. (in Persian)

127 This perspective is in conflict with the philosophy behind the protection of intellectual property rights that these rights are territorial in character and intended to promote competition. Professor Ulrich states that, "the GATT agreement was established to protect the competitiveness and technological lead of industrialized nations against losses by imitation through the imposition of standards on intellectual property protection that have been shaped by these countries according to their own needs. The inclusion of intellectual property rights in GATT negotiations, reinforces the monopoly of transnational corporations over science and technology." Ulrich, op. cit., note 104, p. 151.


129 Ibid.
to gain if intellectual property protection provides greater incentive to foreign technology suppliers to invest and to license new and advanced patented technology to entrepreneurs in these countries. Likewise, familiarisation with the benefits of the system will possibly stimulate greater investment in local research and development activities, encourage local industries to develop their own intellectual property, and provide incentives to promote indigenous technological and innovative activities in developing countries.

In view of the new changes mentioned above, while developing countries will under the GATT agreement enjoy the "most favoured nation treatment" and market access for their trade, they need to formulate their own approaches to minimise the adverse effects of the TRIPS Agreement. They also need to take nationally appropriate measures to enhance their technological development in a post-TRIPS environment. In doing so, developing countries should resort to all available instruments to check abuse of power of intellectual property right holders and to provide legal bases for maintaining some degree of domestic control over intellectual property policies consistent with the provisions of the TRIPS Agreement.

(d) Mechanism to Check Abuse of Power Within the TRIPS

It should be noted that the TRIPS Agreement itself insists that 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."  131

In fact, the preamble to the TRIPS states the following intentions:

a) "To ensure that measures and procedures to enforce intellectual property rights do not in themselves become barriers to legitimate trade", whilst

b) "Recognizing the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and technological objectives", and

c) "Recognizing also the special needs of the least-developed country Members in respect of maximum flexibility in the domestic implementation of laws and regulations in order to enable them to create a sound and viable technological base."

Members, therefore, should administer the intellectual property system in such a way that it achieves the above mentioned objectives: the system should stimulate promotion of technological innovation, the transfer and dissemination of technology, foreign investments, and strike a balance between the private rights of intellectual property owners and their obligations to the public.  132

Furthermore, the TRIPS allows developing countries "in formulating or amending their national laws and regulations, to adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement."  133 These provisions

131 TRIPS, Article 7.

132 While developed countries are obliged to align their laws with the TRIPS within a period of one year after the TRIPS takes effect, developing, least-developed and former socialist countries may rely on the transitional provisions to delay the date when the TRIPS will become binding on them. In that time, some works or inventions would have fallen into public domain, giving freedom to use them free of charge, even when the TRIPS takes effect in such countries. Article 65.

133 TRIPS, Article 8(1). It should be noted however that, Article 40 commits both sides to consultations concerning measures that adversely affect the transfer of technology, including abuse of intellectual property rights.
arm developing countries with legal bases for maintaining some degree of domestic control over intellectual property policies in a post-TRIPS environment. Accordingly, the internal system-checks of the TRIPS, such as compulsory licensing and cancellation, may be used by developing countries to prevent the abuse of power of a patented technology right holder.

(e) Mechanism to Check Abuse of Power Outside the TRIPS

It has been agreed in the TRIPS Agreement that "some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology."134 In the same vein, Members may specify in their national law, "licensing practices or conditions that may in particular cases constitute an abuse of intellectual property rights."135 The TRIPS Agreement, therefore, empowers developing countries to adopt measures which are necessary "to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology."136

The most notable regimes for checking abuses outside the system are transfer of technology regimes and competition or anti-trust regimes.137 The rationale for all these regimes seems to be that the ultimate objective of protecting intellectual property rights is economic development -including technological development,- promotion of competition and making more goods available at reasonable quantity and price. No
right, owner, thus, should be permitted to engage in a conduct which will frustrate these objectives. The regimes just mentioned will be discussed in more detail because of the trend in developing countries to rely on these regimes.138

(f) Adopting Hybrid Legal Regimes

The TRIPS allows member states to devise intellectual property laws that exceed the requirements of prevailing international

^\textsuperscript{1190} This empowers developing countries to adopt hybrid legal regimes of their own, to modify the incentive structures of their patent systems. As has been noted, many industrialised countries favoured such models at earlier stages of their technological development.140 Developing countries, then, should take advantage of this privilege by providing special incentives to encourage private investment in sectors targeted for rapid development. Among such instruments, innovation patents and utility models merit particular attention and have much more to offer by providing a limited monopoly for the teaching and adaptation of foreign technology locally.141

138 Ibid.
139 TRIPS, Article 1(1).
140 See supra, UNCTAD/ITP/TEC/18, 26 December 1990, Chapter Three note 14.
141 See Chapter Nine.
IV. Conclusion

A detailed analysis of the Paris Convention and the TRIPS Agreement have been impossible given the constraints of space and the theme of this thesis. Nevertheless, a few points have emerged:

(i) To strike a balance of the interests of industrial property rights holders and the public interests, the Paris Convention wisely sets up certain minimum standards for the protection of industrial property rights of those enterprises willing to transfer technology to other countries. Under such standards, while the member States are restricted in using instruments such as forfeiture and compulsory licensing on the ground of non-working, they are allowed to adopt other types of compulsory licensing as well as other national legal measures as may be necessary or desirable in the public interests;

(ii) Developing countries within the framework of the New International Economic Order failed to strengthen the patentee's obligation to work a patent locally. In fact, as Dr. Chandler rightly concluded, rigid patent requirements would discourage international transfer of technology to developing countries; 142

(iii) While developing countries will, under the GATT agreement, enjoy the "most favoured nation treatment" and market access for their trade, they should resort to all available instruments, within and outside the TRIPS's system, to check abuse of power of intellectual property right holders and to provide legal bases for maintaining some degree of domestic control over intellectual property policies consistent with the provisions of the TRIPS

Agreement. This requires a close and structural links between patent and protection of competition institutions in developing countries;\textsuperscript{143}

(iv) The compulsory licensing system established by the Paris Convention and the TRIPS Agreement seems to be not an efficient instrument to ensure working of patented inventions, particularly in those developing countries that are not able to work the invention effectively and economically without the patentee’s collaboration in providing the needed technical know-how. Developing countries are empowered by the TRIPS also to adopt hybrid legal regimes of their own, to modify the incentive structures of their patent systems;\textsuperscript{144}

(v) In a post-TRIPS era, the wise choice before developing countries is not overemphasizing the reform of international patent system. Rather they have to administer the patent granting system in such a way as to encourage innovative activities and competition and to prevent any abuse of power.

(vi) Leaving aside other costs and benefits analyses relating to the membership of Iran to the WTO,\textsuperscript{145} since Iran is and intends to be\textsuperscript{146} a party to the

\textsuperscript{143} See supra, Chapter Two, note 26; and infra, Chapter Ten.

\textsuperscript{144} This thesis suggests, among other things, the direct protection of innovations that encourage joint investment of foreign and national enterprises to utilise new technology for the first time in the country. In this regard, the foreign partner usually provides necessary technical know-how. See infra, Chapter Nine.

\textsuperscript{145} In Iran those authorities supporting the membership argue that today reliance on a one-product economy has a risky future and Iran has to adopt an outlook economic policy to gain access to foreign markets for its non-oil products: WTO with its principles provide such a condition. See Ale-eshagh Y. -Ministry of Trade- \textit{Seminar for Examination of Legal Aspects of World Trade Organization}, August 5 1996, reprinted in \textit{Ettelaat}, No. 20835, August 12 1996, p. 7, in Persian; for a similar view see Kalantari, Agriculture Minister, \textit{Salaam}, No. 1501, August 18 1996, p. 1. On the other hand, the opponents to Iran’s membership to WTO point to unequal level of economic development of developed and developing countries and conclude that "GATT has targeted economic development of developing countries and with their membership they will loose their political independence as well and will become the second class members of the so called world wide village." Thus, "for export products of a country like Iran its Northern and Southern markets are adequate." Interview with Dr. Mousavi S. D., \textit{Sobeh}, No. 52, April 30 1996. For an analysis of different views of Iranian authorities in terms of Iran’s membership to WTO, see Tayeb A. R., \textit{Iran and World Trade Organization}, Midd. East Exec. Rep., December 1995; In this regard see
Paris Convention and is determined to secure a foothold in the global market, it is a good idea for Iran to join the WTO. The TRIPS agreement particularly as regards to the protection of technological inventions should not be regarded as a serious impediment for Iran’s economic and technological development. The country, however, must restructure and reform its legal framework relating to the transfer and promotion of technology.

(vii) Developing countries, are left thus with designing their nationally appropriate legal framework so as to encourage inventive and innovative activities and at the same time to prevent patent abuses but within the framework of the Paris Convention, and the Trade Related Aspect of Intellectual Property Agreements. In this regard, the national patent administration would require a reassessment of its functions and duties and location within countries’ general structure of administration. The proposals of this thesis furnish a workable starting point.

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146 A paper submitted by Dr Eftekhare Jahromi, the head of Iran’s Legal Bureau, to National Seminar of Reviewing Industrial Property Rights in Iran and TRIPS in World Trade, Teheran, Dec. 16-17, 1996.

147 In this regard see the Iranian Ministry of Commerce’s views reprinted in Keyhan, No. 15769, 21 October 1996, Teheran, (in Persian).

148 Fasih Marnani, S. M., Iran, GATT and Transfer of Technology, Ettelaat, No. 20597, October 9, 1995, p. 11 and No. 20609, October 23, 1995, p. 11; Fasih Marnani M. S., Preliminary Examination of Effects of Iran’s Membership to WTO with Particular Reference to Pharmaceutical Industries of Iran, Teheran, March 1995. (in Persian) The study was conducted for the Ministry of Health and Education. It was concluded that the present pharmaceutical manufacturing system of the country which is heavily subsidised and regulated and produces mainly the so-called “generic” medicines is in contravention with the WTO’s principles. The liberalisation of the system as well as the provision of an effective legal protection for new pharmaceutical products and processes to encourage private investment in R&D activities were recommended. Ibid.

149 Ibid.

150 See infra, Chapter Ten and Appendix Two.
Chapter Five

NATIONAL COMPETITION LAW AND THE TRANSFER OF TECHNOLOGY

Another important obstacle faced by developing countries has been explicit restrictive clauses in technology licensing and other contractual agreements and implicit practices imposed by foreign technology suppliers that extract further concessions from technology recipients. In this regard competition or antitrust laws\(^1\) are employed to eliminate or control such restrictive practices. This chapter uncovers the legal problems faced by developing countries in controlling the restrictive agreements and practices in arrangements between technology suppliers and recipients and between technology suppliers themselves.

I. Overview

In international transfer of technology transactions, there are restrictive clauses which directly or indirectly limit the recipients from the assimilation and diffusion locally of imported technology and which preserve control of technology in the hands

\(^1\) It is worthwhile to be mentioned here that a common international name has not yet been accepted for such a law. It is called Antitrust Law in the United States; Competition Law or "regles de concurrence" in European Economic Community; Cartel Law in Germany, Switzerland and Austria; Restrictive Practices Law in the U.K.; "droit des entents" in France; Anti Monopoly Law, and Law on Restraints of Competition in the legal literature; and Restrictive Business Practices in United Nations. In this study we use all of them interchangeably.
of the suppliers. Such clauses, when unduly restrictive, result in a substantial increase in foreign technology costs considerably beyond the direct payments made for such technology; limit the effective absorption of technology by domestic firms and licensees; and delay the development of indigenous technological capability of the recipient countries. In effect, uncontrolled restrictive clauses in licensing agreements can be a danger to economic and industrial progress of developing countries.

Therefore, some control over the restrictive business practices widely prevalent in international trade transactions, in particular technology transfer transactions, is one of the areas that has long been a subject of both national and international concern.

Restrictive business practices may be used by technology suppliers individually in order to strengthen their position in a given market, or to monopolise and control a market. Such a market power may be also acquired when the practices are used in concert with other enterprises supplying similar goods or services, by agreeing with them to refrain from competing, dividing markets between themselves, patent cross licensing, or boycotting particular markets. These practices are much more common in international commerce in goods and services than in international transfer of technology agreements per se. This chapter analyses mainly those restrictions occurring mainly in vertical agreements between a technology holder and the

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6 Aguilar, op. cit., note 1, p. 98; Miller, op. cit., note 1, p. 48.
recipients in developing countries, irrespective of whether these restrictions stem from industrial property rights or other market power.

Putting aside the political reasons for controls on technology transfer, other main causes for the extensive use of such restrictive clauses in the transfer of technology transactions deserve to be considered.

II. Intellectual Property Rights and Restrictive Business Practices

(a) Restrictive Business Practices

A principal factor causing the adoption of restrictive business practices in transfer of technology agreements arises from the nature of these transactions. Transfer of technology transactions are fundamentally different from the other commercial transactions: that is, unlike ordinary commercial transactions, where goods are sold, in technology transactions, technology is rented. The supplier of technology by incorporating restrictive clauses in agreements involving the transfer of technology intends to retain the ownership of knowledge as well as corresponding property rights.


8 According to a survey carried out by a group of Iranian researchers in 1980, the data on the restrictive clauses in technological licensing agreements reveal that over half of the agreement (74 out of a total 108 samples) include unfair contractual terms, see Rahnema Saeed, Foreign Licensing Agreements with Iranian Industries: A Study of Technological Dependency, (in Persian), Industrial Development and Renovation Organization Study Report, 1980, limited circulation, Teheran, Industrial Management Institute; for a similar studies in other developing countries see Vaitos C. V., The Process of Commercialization of Technology in the Andean Pact: A Synthesis, Lima, Peru, October 1971. (mimeographed); Jinjoo, The Implementation of Laws and Regulations on Transfer of Technology, the Experience of the Republic of Korea, prepared by the UNCTAD Secretariat, UNCTAD/TEC/6/1990.
He protects his interests by controlling the use that the recipient makes of the acquired technology.

In fact, legal rights that are granted to a technology supplier by intellectual property laws are used to legitimate the incorporation of a considerable number of restrictive practices in transfer of technology agreements. Studies carried out by UNCTAD on transfer of technology transactions in various countries have disclosed that, while industrial property rights generally and patents in particular are not prerequisites for the inclusion of restrictive clauses, restrictions are more common and generally more serious when they are based on industrial property rights.\(^9\) Put differently, the absence of intellectual property rights particularly patents in licensing agreements makes the agreements more vulnerable to the control of authorities dealing with restrictive practices. Thus, a patent may be used to include abusive practices that otherwise would be exposed to more strict screening, not only by the public authorities but even by the licensee.

The abuse of the rights for imposing restrictive business practices has deteriorated since, as noted above, the approach to international standards for the protection of patents switched from striking a balance between private and public interests to protecting the rights of the patent holder as the higher priority. In this regard, the presence of restrictive clauses in technology transactions might have more to do with abuse of the international patent system than with foreign ownership.

The real problem is caused by the restrictions or limitations in agreements granting the licence that go beyond the scope of the patent rights and which attempt to control or restrain industry and commerce. Patent in such circumstances, may be considered to be in restraint of trade as similar restrictions in any other commercial contracts. Drawing a line between the legal and illegal restrictions, however, is not generally an easy task. As a matter of fact, the question of what is within or without

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\(^9\) The legal monopolistic character of patents help to legitimise a number of the abusive practices through the normal exercise of these rights. UNCTAD, *The Role of The Patent System in the Transfer of Technology to Developing Countries*, TD/BC.6/16 Dec. 1975, p. 22.
the proper scope of the patent grant has been one upon which there exist both a substantial body of agreement and disagreement.

(b) Dominant Power of Technology Suppliers

Another important factor encouraging the imposition of restrictive business practices stems from the fact that the transferor, usually a transnational corporation, has a monopoly in the supply of the required commercial technology in the world market. In other words, the technology supplier has a very strong market or dominant power and has decidedly an edge in the negotiation of technology agreements. From the evidence based on a considerable number of reports and studies of international agreements of technology transfer, it is well established that transnational corporations have misused their dominant power in the market and imposed harmful restrictive business practices in agreements involving the transfer of technology to developing countries.10

The concentration of market power in the hands of a few firms has long been recognised as detrimental for a country’s economic and technological development. Consequently, the emergence and rapid growth of transnational corporations in national and world economy, despite their positive effects, have been a source of concern for both developed and developing countries.11


These large corporations possess and control three important elements of development, namely, technology, finance capital, and managerial and marketing skills. Coupled with their strong presence across borders, they have developed the ability to avoid traditional forms of economic regulation. Thus, it has been declared that transnational corporations control substantial shares of local and world markets and "engage in export market allocation, price discrimination and transfer pricing, place stringent conditions on the transfer of technology and patents, and enter into cartel agreements that reduce competition."12 There is also market sharing within transnational corporations, so that a particular subsidiary might not be authorised to export to certain designated foreign markets. Furthermore, such restrictive clauses are also quite frequent in joint ventures involving these corporations.13

Such a market power creates superior bargaining power for technology suppliers vis-a-vis the recipient of their technology, particularly in developing countries.14 As a result of this imbalance of bargaining positions, the objectives of


14 The weaknesses of the receiving country of which the technology suppliers takes advantage can be identified generally as follows:

1. The lack of capacity to prepare a project properly, from the preparatory study to the economic and technological feasibility study and then to the engineering study;
2. Lacking the technology for the project and information of alternative sources thereof;
3. There is a lack of capital, which is usually offered by the technology supplier as a contribution to the equity and ...
4. management liability is lacking or limited;
5. Specific kinds of skilled personnel are not available;
6. There is a lack of knowledge and skilled ability to purchase other inputs such as raw materials, components, equipments, etc.;
7. The recipient needs access to the market of the technology supplier as an outlet for the product to be produced (in the case of exports); the trademarks have an important role to play here;
8. Even where there is a world market, i.e., many potential outlets, the recipient country enterprise lacks the marketing skills.
9. There is a lack of domestic R&D designing and engineering capacity;
10. The widespread corruption of the state - "soft state".
the transfer of technology are seriously affected by the presence of numerous restrictive business practices in transfer of technology agreements.

(c) Law and Restrictive Business Practices

Finally, it has been well established that those countries that have provided sufficient incentives for technology suppliers and at the same time have questioned the validity of restrictive business practices, have succeeded in controlling them to the benefit of the countries. This has been achieved through efficient, consistent and strong legal institutions which, among other things, encourage and maintain favourable conditions for investment, competition and economic and technological development.

It must be born in mind that a natural priority for the owner of the technology is to prevent as much competition as possible in the market for his goods and services. In response, a large number of countries with different economic systems have attached great importance in their domestic legislation to providing for the control and elimination of restrictive conditions in licensing agreements. At the same time, restrictive business practices have been the subject of intense international negotiations held to study the feasibility of an international convention on antitrust or competition which could be used to control the excesses of restrictive business practices in international commercial transactions including transfer of technology agreements.

For more details see UNCTAD, Technology Planning in Developing Countries: A Preliminary Review, TD/B/C.6/30.

See for instance, Articles 85 and 86 of the Treaty of Rome establishing the European Economic Community, and the Commission Regulation of the Community, No 2349/84 of 23 July 1984 on the application of Article 85 (3) of the Treaty to certain categories of patent licensing agreements. See generally, Raybould D. M. and Firth A., Law of Monopolies: Competition Law and Practice in the USA, EEC, Germany and the UK, 1991. On November 8, 1993, the European Economic Community officially became known as the European Union. For consistency, however, the terms European Economic Community (EEC) will be used throughout this thesis.

See Chapter Six.
III. Action by Developed Market-Economy Countries

In the leading industrialised countries, comprehensive laws and effective administrative and judicial institutions to control restrictive business practices have long been in existence. The main legal vehicle is the so-called antitrust law or competition law which lays down rules against anti-competitive conduct and abuse of a dominant position in the market. Restrictive business practices fall within the purview of these laws in addition to the laws governing commercial contracts generally. The advocates of a free and competitive market as an economic concept maintain that such a market alone can result in the most efficient allocation of a country’s resources and lead to innovative and competitive industries which can produce the best product at the cheapest price to the consumer.¹⁷ No intervention by the state is necessary other than supplying the rules to ensure a free and competitive market. Theoretically speaking, intellectual property laws add up to an interference in the market.¹⁸

Adam Smith, the author of The Wealth of Nations, has been widely regarded as the innovator of modern capitalism.¹⁹ According to him, the doctrine of laissez-faire is the key to the wealth of nations and applies equally to poor citizens of the world as for the rich.²⁰ Smith added, this is not because businessmen or capitalists would have it so, rather, it comes about as a result of competition, and businessmen everywhere are the enemy of the competitive process.²¹ Adam Smith followed that

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¹⁸ For an interesting analysis of a free market economy see generally Buchanan J. M., Liberty, Market and State: Political Economy in the 1980s, 1986.

¹⁹ The economic collapse of the Soviet empire, has drawn attention once again to the inherent inefficiencies of the "command economy". For the time being at least, Market capitalism appears to have triumphed.


²¹ Ibid.
"people of the same trade seldom meet together even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." Furthermore, "the interest of the dealers in any particular branch of trade or manufactures, is always in some respects different from and even opposite to, that of the public. To widen the market and to narrow the competition, is always the interests of the dealers. To widen the market may frequently be agreeable enough to interests of the public: but to narrow the competition must always be against it."

It was based on the above principles that Adam Smith labelled existing government intervention in the economy as the "mercantile system" and held out for free enterprise, free trade, and the free movement of people and goods within and between countries. Furthermore, it is believed that by enforcing competition rules without harming the freedom of contract and competition in supply and demand, the law can promote economic justice and distribute opportunities by controlling or abolishing monopolies. Equally important is the political dimension of economic power. That is to say no one in a democracy should have power over the things that people want to buy or over their opportunities to work except under a rule of law passing by an elected Parliament.

The U.S. Sherman Act of 1890 was the first law in an industrialised country to be enacted deliberately to guarantee a free and competitive market in goods and services. The Sherman Act prohibits all contracts, combinations and conspiracies that restrains trade as well as monopolization and attempts and conspiracies to

22 Ibid.

23 Ibid.


25 The Sherman Act was reinforced by the Clayton Act in 1914, which prohibits certain potential restraints on competition by tie-ins, exclusive dealing, and mergers. In 1914, another Act was passed which prohibits unfair method of competition, and Acts 1936 and 1950, respectively prohibit certain price discrimination and some aspects of merger.
monopolize the market. Either the government or a private plaintiff may bring legal action against violations of the law.26 Besides civil antitrust suit for violations of the law, the government is empowered by the Sherman Act to ask for criminal penalties as well. A defendant convicted of a criminal antitrust violation may be imprisoned for up to three years and fined up to one million dollars. On the other hand, in a civil antitrust suit, a convicted defendant must pay three times the actual damages plus the attorney's fees and costs of the litigation.27

Moreover, the United States antitrust law may be applied to foreign restrictive business practices in agreements even where one party is a foreign subject. This extraterritoriality, however, is applied to those restrictive business practices that adversely affect commerce and export of U.S. goods. It is interesting to note that under the United States antitrust law foreign States damaged by restrictive business practices of the United States are entitled to sue for treble-damage when those restrictive business practices are contravening the United States antitrust laws.

Governments of India, Iran and the Philippines, in 1977 brought the treble-damage suit in the United States for alleged price-fixing by six major United States pharmaceutical companies in respect of their sales of a broad range of antibiotic drugs, purchased not only by those Governments but also by their citizens.28 Although the companies challenged the claims, the court subsequently decided that foreign governments had the right to seek treble damage in respect of goods they had purchased, since it held that a foreign government was a person within the meaning of section 4 of the Clayton Act.29 On the other hand the court held that damaged

26 Sherman Act, 15 U.S.C.A., 1890, Sections 1-7. It is noteworthy that the number of private actions brought under antitrust laws of the United States has exceeded by ten times the number brought by the government since 1941. See Stelzer M. L., Private Anti-Trust Enforcement in the United States, 5 ECLR, 1985, pp. 285-357, p. 287.

27 Sherman Act, Ibid., Sections 1, 2, 9, 15 (a).


could not be sought by a foreign government for purchases made by its citizens under a "parense patriae" claim.\textsuperscript{30}

Articles 85 and 86 of the European Economic Community, also have established a comprehensive set of rules and precedents as regards restrictive business practices.\textsuperscript{31} Enforcement of the competition rules in the European Economic Community rests primarily with the Commission which has a broad powers to investigate and prosecute violation of the European Economic Community laws.\textsuperscript{32} In contrast with the United States antitrust laws, among other differences, the European Economic Community competition rules do not impose any criminal sanctions for competition violations, but companies and individuals may be fined up to ten percent of annual sales.\textsuperscript{33} The competition law excludes non-member claims so far as no restriction has been placed on intra-States trade relations.\textsuperscript{34}

(a) **Antitrust v. Intellectual Property Rights**

Because of the fact that intellectual property laws and antitrust laws have different objectives in virtual opposition to each other, several points of conflict occur in their enforcement and they are sometimes very difficult to reconcile. While antitrust laws encourage and protect free competition in both supply and demand sides by prohibiting undue restraints, a patent law, for example, confers upon the inventor of

\textsuperscript{30} Pfizer, Inc. v. Lord, 522 F. 2d 612 (8th Cir. 1975). The sovereign as "parense patriae" has a kind of guardianship over various classes of persons, who from their legal disability, stand in need of protection. See Whartons, \textit{Law Lexicon}, 14th ed., London.


\textsuperscript{32} Regulation 17/62 OT 1962,204.

\textsuperscript{33} Ibid, Articles 15(2) and (3).

a new product or process the exclusive rights to make, use, and sell the patented technology. There is the risk that the patentee may abuse the right of exclusivity in an anti-competitive manner. This risk is greatest if the patent gives the patentee substantial market power or even a monopoly for a particular type of product. Therefore, the parallel application of competition and intellectual property laws requires careful evaluation and balancing of their underlying purposes in order to minimise potential conflicts and avoid frustrating the key objectives of either of these laws.

A considerable number of articles and books have been written and many symposiums have been held to examine and clarify the relationship between the two fields of law. Some scholars believe that both are closely related and share a common ultimate goal of efficient resource allocation by providing protection of the law for a free and competitive market in goods and services. The special character of that protection in the two cases, however, are different: industrial property law protects competitive accomplishments and the fairness of competition while antitrust law ensures freedom of competition by prohibiting restraints of trade and abuse of economic power.

Professor Korah Valentine also regards intellectual property rights and competition as allies and not enemies: "If you perceive the transaction *ex ante*, before investment has been made in developing the technology, work or whatever, it is clear that.... we need protection from "free riders" as an incentive to investment in creative effort. Few firms would consider investment worth while unless each could appropriate the results. On the other hand, if the matter is perceived *ex post*, after the

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investment that led to the right has been made, the right can be seen only as a barrier to entry, since by that time incentives to investment have become irrelevant".\(^{36}\) Therefore, although antitrust law condemns restraints of trade and declares such practices unlawful, it recognizes the existence of intellectual property rights and the law governing those rights as a partner in meeting common economic objectives. It is submitted that such a coexistence is only possible and beneficial if the rights are utilized for the original and basic purposes of intellectual property law, namely, to promote innovation, encourage the society to become more creative, reward the owner for the time and effort he puts in technology which eventually benefits the country's economy, and do not go beyond these purposes or otherwise abused.

It is apparent from the above that antitrust or competition law of the developed industrialised countries is applied to all commercial agreements and arrangements including transfer of technology through licensing and franchising agreements. The competition law in those countries is primarily concerned with restrictive business practices that directly or indirectly distort competition in the domestic market. In other words, legal systems of developed countries do not as a rule, deal with transfer of technology transactions as such. These countries, having a more or less equal level of economic development with trade among them evolving under normal market conditions, do not feel obliged to enact any transfer of technology specific regulation within their national legal systems. So for them transfer of technology transactions are deemed to be normal contracts, governed by the rules of civil or common law, particularly domestic antitrust law and the law protecting industrial property rights.

Although for the developed industrialised countries that have secured about 95% of world patents, such a complicated and elaborated legal machinery to control the misuses of patent rights seems inevitable and satisfactory, developing countries which are the main importers of foreign technology must adopt a system appropriate

to their peculiarities and needs. It is believed that, as a part of a package which will be introduced by this thesis, the best solution for the developing countries is the adoption of an industrial policy-based patent system which protects directly innovations rather than inventions. Such an innovation patent, as will be considered in detail later, unlike the traditional patents, cannot be easily misused and would bring market power for the small and medium sized enterprises which play an important role in the developing counties, and lead to a different structure of the market in technology where technology is transferred to developing countries more effectively on conditions appropriate to these countries.

37 It is understood that about 550 persons are employed by the Antitrust Division of the United States. The European Economic Community employs about 270 persons to enforce the competition law.

Some developing countries also have attached particular significance to the elimination of restrictive business practices that are prejudicial to their economic and social development. Given the insufficiency of the classical law of contracts to govern the relationship between parties with an unequal level of development and bargaining power, international transfer of technology agreements came to be subject to a special law expressly enacted to govern such agreements. By the end of the 1994 about 40 States had adopted special transfer of technology laws. The underlying concept of the new laws is the fact that the market for technology is imperfect and enterprises in developing countries are in a clearly disadvantageous position vis-a-vis the technology suppliers who generally are located in industrialised countries.

It is submitted that the existence of an appropriate legal framework which promotes a favourable and beneficial environment for the transfer, application and development of needed technologies is critical to successful technology development and long term technological transformation. As was considered above, the absence of such a framework has been one of the causes of the failure of industrialisation of Iran. The enactment of transfer of a technology law which prescribes the rational intervention of governmental bodies in the transfer of technology process is deemed

38 Interview in Geneva by the author with Dr Assad Omer, the Transfer of Technology Director of UNCTAD, December 12, 1994, UNCTAD, Geneva. Some developing countries which have introduced transfer of technology regime are; Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Mexico, Peru and Venezuela in Latin America, Ethiopia, Ghana, Nigeria, Sudan, the United Republic of Tanzania, Togo and Zambia in Africa, China, the Democratic People's Republic of Korea, India, Iraq, Japan, Malaysia, Nepal, Pakistan, The Philippines, the Republic of Korea, and Sri Lanka, in Asia; and Bulgaria, Greece, Portugal, Spain and Yugoslavia in Europe. Ibid.


40 See Chapter Two.
necessary to improve the recipient's position and to ensure that technology transfers take place on terms favourable to the recipient country. Under such regulatory regimes, transfer of technology agreements, are not subject to the autonomous will of the parties but are a matter of "public order" and national interests instead.

A salient feature of these laws is the establishment of screening procedures for approval of agreements for the acquisition of foreign technology which must satisfy rules excluding certain types of restrictive clauses. Approval may be made subject to the deletion of restrictive clauses deemed unlawful.41 These regulations, have been patterned after similar provisions contained in the U.S. antitrust legislation, Articles 85 and 86 of the treaty of Rome and provisions taken into account by the Fair Trade Commission of Japan.42 These regulations contain: a general provision stating the principle on the basis of which particular practices can be found restrictive and therefore unacceptable; an illustrative list of practices; per se illegality of some restrictive clauses; a list of exceptions and pre-submission of agreements for evaluation of their anti-competitive clauses.43 Accordingly, the technology transfer laws also have placed emphasis on increased competition which is the concern of the competition law of industrialised countries as well.


43 UNCTAD, Restructure the Legal Environment: International Transfer of Technology, Common approaches to laws and regulations on the transfer and acquisition of technology, UN. Doc. DT/B/C.6/91, 1982, p. 35. 36.
IV. The Validity of Restrictive Business Practices under Competition and Transfer of Technology Laws

The question arises as to how these two sets of laws, antitrust and transfer of technology, deal with restrictive business practices. Although both competition rules and technology transfer rules have a common economic purpose, their approaches to solving restrictive business practice issues are influenced by different goals. Competition rules are aimed at using resources efficiently but transfer of technology rules are aimed at acquiring technological resources. To procure technological resources at the lowest economic cost some degree of competition would be necessary but not to the point that no technology supplier wants to sell. In the following paragraphs certain important types of restrictive business practices, incorporated frequently in transfer of technology agreements, will be considered from the standpoints of both antitrust and transfer of technology laws.

(a) Grant Back Provisions

Grant-back provisions in transfer of technology agreements oblige the licensee to grant back to the licensor any improvements and inventions that are made to the acquired technology. A close examination of the licensing agreements concluded between transnational corporations and Iranian firms before 1979 reveals that nearly in all agreements the Iranian firms were prohibited to patent any innovation of the technology. The Iranian firms were not free to licence or transfer any innovations and improvements of the licensed technology to a third party, but only to the licensor. Clearly enough, such provisions, particularly those which do not provide for any compensation, eliminate the transferee’s incentive to do innovative activities to adapt and internalise the imported technology. There is less objection, however, to the grant
back provisions that are reciprocal and obliging all parties to transfer back additional knowledge for further technological progress.44

While under a rule of reason test of U.S. anti-trust laws, grant-back provisions have been considered as valid consideration for the license, and pro-competitive so long as the original patent is in force,45 in Germany and Japan, grant-back provisions are valid, provided that the existence of substantial reciprocity by the suppliers,46 and in the European Economic Community exclusive and non-reciprocal grant-backs are objectionable.47

Most technology transfer regimes have prohibited unilateral or non-reciprocal grant-back obligations with a wide variation.48 The Andean Pact countries -except

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44 For instance see Philippines Technology Regulations, Rule V, Sect. 1 (c), Nos. 3 and 4, reprinted in UNCTAD Compilation of Legal Materials Dealing With Transfer and Development of Technology, 1982 U.N. Doc. TD/B/C.6/81 (hereinafter UNCTAD Compilation). It should be borne in mind however, that, as was the case in Iran before the 1979 revolution, often the grant-back is not remunerated, and here the supplier has the advantage of securing access to all developments made by the acquirer, free of charge, without sharing his risks and contributing towards the acquiring party’s financial burdens; see also UN. Doc. DT/B/C.6/91, op. cit., Ibid., para. 139.


47 The EEC Regulation No. 2349/84, O. J. Eur. Comm. (No. L 219) 15 (1984), Article 1 (10). “Pursuant to article 85 (3) of the Treaty and subject to the provisions of this regulation, it is hereby declared that article 85 (1) of the treaty shall not apply an obligation on the parties to communicate to one another any experience gained in exploiting the licensed invention and to grant one another a licence in respect of inventions relating to improvements and new applications, provided that such communication or licence is non-exclusive.” Ibid, (emphasis added)

48 Brazil Act 015, Sec. 4.5.2.; Colombia Decree No. 1234, Art. 2; Nigeria, National Office on Industrial Property, Decree No. 70, 1979, Sec. 6 (2) (d), reprinted in UNCTAD Compilation, op. cit., note 44; Mexico, Law on the Control and Registration of the Transfer of Technology and the Use and Exploitation of Patents and Trade Marks, 1981, Art. 15; reprinted in UNCTAD Compilation, op. cit., note 44.
for Venezuela\textsuperscript{49} have an absolute prohibition of grant-back.\textsuperscript{50} Others forbid them if they are exclusive,\textsuperscript{51} or gratuitous or onerous,\textsuperscript{52} or "inequitable".\textsuperscript{53} Countries such as India, Malaysia and Zambia have not even mentioned grant-back in their guidelines or legislations.\textsuperscript{54}

(b) Field of Use Restrictions

Limitations on the field of use occur when a patented technology can be used in several technological fields but its supplier authorises a limited or restricted use of the technology, declining to authorise all other uses of the technology and reserving some use for self-exploitation or exploitation by third parties. For instance, by restricting a licensee to the manufacture of a patented technology for use in homes, the licensor reserves manufacture for use in commercial establishments for itself or third parties. In such cases field-of-use restrictions can have the effect of market allocation.\textsuperscript{55} Restrictions in the field of use of technology could restrain the recipient from

\begin{itemize}
\item \textsuperscript{50} Andean Group, \textit{Decision 24 of the Commission: Common Regulations Governing Foreign Capital Movement, Trademarks, Patents, Licenses and Royalties}, 1971, reprinted in UNCTAD Compilation, op. cit., note 44.
\item \textsuperscript{51} Philippines Technology Regulations, Rule V, Sect. 1 (c), Ibid.
\item \textsuperscript{52} Nigeria, \textit{Decree No. 70}, 1979, Section 6 (2) (d), Ibid; Mexico, \textit{Law on the Control and Registration of the Transfer of Technology}, Art. 15, Ibid.
\item \textsuperscript{53} China, Law of Joint Ventures, 1979, Ibid.
\end{itemize}
extending his production to other goods which might be of great use to meet local needs or might have a greater chance of being exported.

The treatment of field of use restrictions under antitrust and transfer of technology regulations differs. Antitrust laws generally consider valid those field of use restrictions that fall inside the exclusive powers derived from industrial property rights. By contrast, while some developing countries regard such restrictions as part of the rights conferred by the industrial property rights as well, under some technology transfer regimes field of use restrictions are not considered or considered only to a lesser extent to be part of the rights conferred by industrial property rights.

(c) Tying Agreements

Transfer of technology agreements frequently require the licensee to purchase all or certain additional unpatented materials, components or equipment exclusively from the licensor or from designated suppliers. Of course, where unpatented and patented articles are used in close conjunction, and the two are technically compatible to assure

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56 For a leading case in which a field of use restriction imposed upon a licensee by a patent holder was not recognised as an anti-trust violation per se, see General Talking Pictures Corp. v. Western Electric Company, 305 U.S. 124 (1938); see also German Act Against Restraints on Competition (1957); Commission Regulation (EEC) no 2349/84 of 23 July 1984 on the application of Article 85 (3) of the treaty to certain categories of patent licensing agreements, Art. 21 (3).


58 Brazil, Normative Act No. 015, establishing basic principles and norms for the registration of contracts involving the transfer of technology and related agreements, Art. 2.5.2, 11 September 1975, reprinted in UNCTAD Compilation, op. cit., note 44.

efficient operation or necessary to assure the quality of the patented product, such a tie-in is justified.  

Apart from such technical and justifiable grounds, tied purchase provisions may be used as a means for receiving compensation in the form of enhanced prices on tied purchases rather than royalty payments, due to tax or other fiscal considerations; and may be used to maximise profits by extending the contract beyond the rights he would normally enjoy under the system of industrial property rights. This results in what is called overpricing of technology. Because, if tied purchase materials are available on the world market, both the recipient and third parties who are excluded by this provision from supplying it, are unable to make use of market opportunities. This tends to raise production costs and may have significant effects on import substitution, export diversification and the growth efforts of developing countries. As a consequence, most countries condemn tying provisions with limited specific exemptions. In this regard developing countries while prohibiting tied purchases, provide for some exceptions as well.

Both the U.S. and the European Economic Community competition laws condemn the tying of unpatented products to the grant of a patent licence. However, a specific exemption from the prohibition on tying is found under the European Economic Community competition law when the tying "products or services are necessary for technically satisfactory exploitation of the licensed invention".

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62 Article 20(a) of Decision No. 24 of the Andean Countries; Philippines, Technology Transfer Regulations, Rule V, Sec. 1(c) op. cit., note 44; see also UNCTAD, Control of Restrictive Business Practices in Transfer of Technology Transactions, UN. Doc. TD/B/C.6/72 (1982), pp. 36-41; UN. Doc. DT/B/C.6/91, op. cit., note 43, pp. 49,50.
63 Section 1 of the Sherman Act or Section 3 of the Clayton Act, op. cit., note 26; As to the European Economic Community, see Commission Regulation No. 2349/84, op. cit., note 74, Art. 3.9 that asserts that block exemption is not applicable when licensee is included to accept further licenses that he does not want or to agree to use patents, goods or services that he does not want.
64 Commission Regulation No. 2349/84, Arts. 2.1 (1) and 3.9, Ibid.
The test that determines the validity of such restrictive clauses under the U.S. antitrust law is again whether the clauses create an anti-competitive market or not. Accordingly, in cases where the license relates to a new business with an uncertain future, and where the licensor guarantees the product manufactured under the patent licence a tying agreement may be tolerable. Under German competition law, tying arrangements are illegal unless it can be proved that they are necessary for technical reasons.


V. Challenges to the Validity of Industrial Property Rights

(a) Conceptual Differences

It should be noted that a more precise comparison between antitrust and transfer of technology laws reveals that their fundamental differences are based on their different conceptual approaches or objectives. As noted above, while the antitrust law of developed market-economy countries are primarily aimed at avoiding restraints on competition, most regulations on transfer of technology enacted by developing countries are aimed at protecting certain wider interests closely related to the economic and technological development of the acquiring country. Moreover, this so-called "development test approach" is based on the premise of the existence of de facto inequality in the bargaining position of the parties to transfer of technology agreements and, therefore, seeks to prohibit any practice that establishes a relationship of dependence or control over the productive, technological or marketing activities of the acquiring country.69

The approach of developing countries includes the prohibition of certain practices which have possible anti-competitive effects but, is clearly not limited to them.70 In other words, they use the same legal means for different ends. That is to

68 It is noteworthy that due to different social and political values in the EEC and the US they have had different competition policies. While both of them recognize the promotion of competition as the principal policy objective, the United States sees competition as the exclusive policy objective. For a comparative examination of the development of EEC and US law, see, Barry E. Hawk, The American (Anti trust) Revolution: Lessons for the EEC? ECLR, 1988, pp. 53-87.


70 In the negotiations of the international antitrust law, the developing countries, based on their economic and developmental particularities, introduce the "development approach" for the evaluation of Restrictive Business Practices. They argued that the competition test criterion presuppose some sort of essential equality among parties concerned, which did not in fact exist. In this regard a representative from a developing country contented that, competition between unequal is a handicapped race. UNCTAD, Report of The Second Ad Hoc Group of Experts on Restrictive Business Practices, U.N. Doc. TD/B/600, TD/B/C.2/166, TD/B/C.2/AC.5/6, 8 March
say, the transfer of technology regulations are not necessarily incompatible with rules of antitrust law, though their concepts are substantially different. To take an example, under the transfer of technology legislation a technology transfer contract that contains a restraint of trade clause may be regarded as legal and authorised on the ground that looking at whole contract, despite its restrictions, is beneficial to the local recipient and social and economic development of the country.\textsuperscript{71}

Certain practices such as the use of natural resources, the adaptation of technology transferred to local conditions, and research for latter purpose, though they do not involve competition should satisfy requirements of the transfer of technology regulations. Therefore, the objectives pursued by developing countries are wider than those behind the competition policy for controlling restrictive business practices.

To be sure even some developing countries such as Argentina, Brazil, Colombia and Mexico, which already have general competition laws, have enacted transfer of technology regulations to, among other things, control restrictive business practices in the transfer of technology transactions.\textsuperscript{72} Indeed for countries which are still in the process of development and have ultimate goals of gaining technological independence and becoming economically strong enough to compete in the international market, it makes sense to first achieve development instead. According to Dr. Phillips, "any country which does not protect small, weak and fundless enterprises against having to compete within its own jurisdiction against technology-rich enterprises, but which the principle of international technology transfer, might feel that its own principles were ripe for reconsideration".\textsuperscript{73}

On the other hand, if neutral antitrust principles are applied in developing countries, they would face the problem of shortages of foreign technology as well.

Pursuant to the competition rules, they have to declare invalid all agreements that contain restrictive clauses, though those agreements offer more advantages to the country. The importance of acquisition of foreign technology on conditions which are consistent with overall economic aims of the acquiring country has also been recognised by the specialised international organisations.\textsuperscript{74}

It is interesting to note that one of the major post-war legislation forced upon the Japanese government was the Anti-Monopoly law of 1947 which was modeled after the U.S. anti-trust law. The law was aimed at maintaining a free and fair competitive economic order in Japan.\textsuperscript{75} Given the post war economic and social circumstances of Japan, soon it was realised that such a general and neutral law was not capable of promoting the acquisition of needed foreign capital and technology.\textsuperscript{76} As a result, Japan pioneered the enactment of the transfer of technology law by which it controlled technology imports to promote the use of advanced technology, improve the terms, quality, price and appropriateness of technology licensing agreements and the bargaining position of Japanese firms, facilitate the diffusion of new technology and shape Japanese industrial structure.\textsuperscript{77}

The Republic of Korea has also followed the same pattern. She controls restrictive practices in transfer of technology agreements through the application of its

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\begin{itemize}
\item[74] WIPO Model Law for Developing Countries on Inventions vol. II, Know-how, Examination and Registration of Contracts, Inventors’ Certificates, Technovations, Transfer of Technology Patents, 1980, p. 37.
\item[76] Layton, Ibid, p. 182.
\end{itemize}
\end{footnotesize}
competition rules, using an approach which is, in practice, similar to that followed in its earlier technology transfer regime.  

It is submitted that this departure from a broad antitrust law to a more specific one has been regarded as a lack of confidence of these countries in the ability of traditional antitrust legislation to overcome restrictive practices of transfer of technology transactions. According to Ebb, the antitrust laws of these countries seem to be relatively ineffectual because of "their sheer breadth of scope and occasional vagueness, taken together with a background of social, economic and political factors that has not hitherto made their implementation highly popular." By contrast, "the sheer narrowness in scope and the specificity of the mini-body of antitrust laws contained in the regulations governing transfer of foreign technology have helped create an atmosphere of earnest endeavour to implement and effectuate that body of law."  

Another reason for the effectiveness of the transfer of technology regimes of developing countries in controlling restrictive business practices is the general cultural factor underlying such regulations which are aimed at protecting indigenous firms and consumers against transnational corporations. In fact, as Joelson bluntly contends, "many developing nations do not view rules of law against restrictive business practices as neutral instruments to promote the greatest possible economic competition, but as shields to protect their struggling economies from domination by transnational enterprises of the developed nations".

80 Ibid.  
It should also be noted that there is a flexible framework of technology transfer regimes when dealing with restrictive business practices. Given the economic and industrial realities of developing countries, in addition to the detailed list of unacceptable provisions, the competent office is generally granted discretionary power to approve agreements with restrictive clauses when it would be in the national interest.

The intent of such technology transfer regimes clearly is not the protection of competition per se, but regulation and control of international transfer of technology transactions through state intervention to steer the course of economic development. In other words, the objective of transfer of technology regulations is more from the context of economic development rather than from the point of view of competition.

(b) No Competition Clause

It is not uncommon that a licensee is required to refrain from challenging the validity of the patents and other types of protection for inventions involved in the technology. The imposition of such a restriction in technology licensing agreements seems to reflect recognition by licensors of the weakness of their patents and their desire to maintain certain restrictions which are only permissible under valid patents. In most cases a thorough novelty investigation is not performed in developing countries. Similarly, only a small proportion of inventions are disclosed efficiently in these countries. Therefore, when such a patented technology is licensed, the licensee will be frequently in a good position to question the legal validity of the patent in order to reduce the royalties and to discontinue certain restrictive clauses of the license. The inclusion of non-contestation clauses in technology agreements, thus, may affect the payment obligations of the licensee, weaken his competitive position vis-a-vis the licensor, and deter the promotion and diffusion of technology. 82

Except Germany, it seems that the countries that have enacted antitrust or transfer of technology laws consider non-contestation clauses relating to patents as restrictive clauses. In the U.S., in Lear, Inv. v. Adkins a licensee was permitted to contest the validity of a patent, even though there was a clause in the license agreement to the contrary. In the same vein, an European Economic Community Regulation pointedly excludes non-contestation clauses from block exemptions. Countries like Brazil have extended such a prohibition to trade marks as well.

(c) Restrictions After Expiration of Industrial Property Rights

The developing countries, which have enacted technology transfer regimes, prohibit the technology supplier from requiring payments for continuing the use of industrial property rights which have been invalidated, cancelled or have expired. Competition laws of Germany, the European Economic Community and the United States also unanimously regard any payments after expiration of an industrial property right as unlawful. Indeed this is the essence of the patent system that once a patent is expired its technical knowledge enters into the public domain to be used freely by any interested party, and any further payment obligations based on that patent should be discontinued.

83 Germany, Act Against Restraints of Competition of 1957, Section 20(2)14. The law provides that "obligations of the acquirer or licensee not to contest the statutory privilege" are permissable in so far as these restrains do not exceed the statutory term of the privilege acquired or licensed.


85 Regulation No. 2349/84, op. cit., note 47, Art. 3.1.

86 Brazil, Normative Act No. 015, op. cit., note 58, Art. 3.5.2.c (iv).

87 See for instance, Brazil Industrial Property Code, (1971), Art. 30 (c), in UNCTAD Compilation, op. cit., note 44.

88 The U.S. Supreme Court in this regard has decided that royalties from patents cease when the patent ends. Lear, Inv. v. Adkins, 395 U.S. 653 (1969).
An important question arises as to package licensing which contains a main patent with some improvement patents, whether payment obligations should cease once the main patent expires or continue until the expiration of the last or the "youngest" patent. While this question has not been addressed directly by the technology transfer regimes, some competition laws of developed market-economy countries have required an adjustment of payment obligations and other related restrictions.  

(d) Export Restrictions

From the evidence based on 23 agreements between Iranian enterprises and foreign partners, it was revealed that only in four cases the Iranian firms were allowed to export their products. This restriction is extremely onerous to developing countries because most of them have limited home markets and cannot operate their industries efficiently without producing for markets abroad. Furthermore, the export of manufactured goods will encourage innovation of the products to compete in the world markets and yield larger returns on investments in technology in the long run. Most importantly, exports provide valuable foreign exchange to acquire more sophisticated technology. The countries also benefit from the foreign exchange earnings and the resultant improvement in the balance of foreign trade.

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90 Daftari F. and Borghey M., Multinational Enterprises and Employment in Iran (Geneva: I.L.O., 1976). Nine types of export restrictions which have been identified are: export restriction (general); global ban on exports; exports prohibited to specified countries; exports permitted to specified countries only; prior approval for exports; price control of exports; exports restricted to specified products; exports permitted to or through specified firms only and exports prohibited of substitute products. UNCTAD, Restrictive Business Practices: Interim Report by the UNCTAD Secretariat, U.N. Doc. TD/B/C.2/104/Rev.1, 1971, p. 19.
Export restrictions may indirectly raise the unit price of a product to domestic consumers because capacity of the industry is not sufficiently utilised to reap the benefits of economies of scale. Finally, the evidence available suggests that export restrictions tend to be not very significant in some of the traditional industries, such as primary processing, as compared to import-substitution and modern research-intensive industries, for example, chemicals and pharmaceutical which are potentially more dynamic and can offer greater prospects for export-based industrialisation. 91

Save exceptional cases in which export restrictions relate to intellectual property rights or to areas where the supplier himself is manufacturing or selling patented goods or where he has granted exclusive licence, other export restrictions are prohibited by almost all technology transfer regimes. 92 In the same way, the U.S. antitrust laws, the European Economic Community competition rules and the German Act against restraints of competition have prohibited export restrictions, except those cases where the technology supplier enjoys intellectual property rights in the country to which exports are made. 93 The above attitudes towards the export restrictive clauses, curiously enough, show the importance of industrial property rights as a means of expansion of foreign exports.

(e) Parent-subsidiary Relations

The technology transfer regimes generally do not provide for liability on the part of national firms for antitrust violations. While these regulatory regimes are aimed solely

91 UNCTAD, UN. Doc. DT/B/C.6/91, op. cit., note 43, p. 53, para. 154. The negative effects of export restrictions has received considerable attention in the literature on the subject, see for instance Major Issues Arising From the Transfer of Technology to Developing Countries, U.N., 1975, paras. 56-70.

92 Brazil, Normative Act No. 015, op. cit., note 58; Argentina, Law No. 22, 426 on Transfer of Technology, 1981, op. cit., note 44.

93 Fikentscher. op. cit., note 90, p. 89.
antitrust laws do not discriminate against foreign firms. Nevertheless, despite many similarities between the antitrust rules and transfer of technology regulations, antitrust rules are enforced differently in developed market-economy countries as compared to developing economies where highly developed markets do not exist.

An important difference in the enforcement of antitrust and transfer of technology rules is the way in which parent-subsidiary relations are treated. Under antitrust or competition laws it is not believed that branches of a corporation can or should be forced to compete with one another. These countries have adhered to the position exemplified in the decision of the European Court of Justice on the Sterling Drug-Centraform case that internal decisions of enterprises were not considered to be restrictive business practices, unless such decisions or transactions have an anti-competitive effect outside the ambit of the entities' relationship. Furthermore, a parent-subsidiary internal decision generally raise questions not of restrictive practices but rather of investment, tax or fiscal policies.

On the other hand, the technology transfer regimes pertain to the relations between the parent and its subsidiary enterprises as well. Government intervention is based on the fear of possible adverse effects of internal decisions or agreements of parent-subsidiary enterprises on the economic and technological development of the host country if they are not controlled. It has been well founded that a very substantial


international transfer of technology takes place within the framework of parent-

Studies conducted in various developing countries have revealed significant
evidence of the weight of payments between parent and subsidiaries in the total
amount paid regarding transfer of technology. In Brazil, for instance, 52% of the total
country’s payments were made in during 1965-1970 between subsidiary and parent
technology licensing operations between parent and subsidiary enterprises are used for
tax avoidance and for privileged foreign exchange remittances, the national technology
transfer regimes generally provide a special screening procedure for licence
agreements and limit or prohibit royalty payments between such companies.\footnote{Andean Code, UNCTAD Compilation, op. cit., note 44, Art. 21; Argentina Transfer of Technology law, op. cit., UNCTAD Compilation, note 44, Arts, 2,5.} Indeed such provisions are totally unrelated to antitrust laws of developed market-
economy countries.

(f) Restrictions on Adaptations

Another area of dissimilarity between antitrust or competition laws and the technology
transfer regimes is prevention of the recipient from adapting the technology to
domestic conditions or making improvements and innovations in the imported
technology. "Adaptations may result in a higher utilization of local human and
material resources, or in the production of goods more accessible to a large part of the
population or more appropriate for local conditions".\footnote{UNCTAD, UN. Doc. DT/B/C.6/91, op. cit., note 43, p. 45.} Given the significant role
of adaptation in the process of transfer of technology, developing countries have
attached particular importance to the elimination of those clauses that either restrict
the adaptation of imported technology, or require unwanted or unnecessary designs or
specification changes in the technology to the extent that such changes may make the
products more costly or unsuitable for the local demand.\(^{102}\)

It should be noted, however that in some instances such as using the supplier’s
name, trade or service mark or trade name, and those that, if tampered with,
unsuitably affects products and the process for their manufacture, the technology
supplying party will have serious interests in maintaining certain standards or qualities
in the use of the imported technology or with respect to goods produced by it.
Therefore, developing countries are recommended to deal with such restrictions on the
basis of rule of reason than \(per se\) illegality. By contrast, antitrust laws of developed
market-economy countries have paid little attention to such questions.\(^{103}\)

(g) Patent Pool and Cross-Licensing

A patent pool comprises all modes and forms of cooperation between patent holders
with different interests through cross licenses or assigning all patents to a trustee who
in turn gives each member a license under the combined patents.\(^{104}\) Patent pool
members by deciding not to grant licences to third parties artificially reduce the
number of alternative sources of new technology available to recipient firms, solidify
the already superior bargaining power of the technology owners and enable them to

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102 For instances, Art. 37 (1) of Yugoslavia Technology Law, in UNCTAD Compilation, op. cit., note 44; Rule V sec.1(c) (10) of Philippines Technology Regulations, op. cit., note 44; UNCTAD, UN.


fix prices, divide markets, erect quotas and impose conditions which they could not otherwise obtain if they were competing with one another. In other words, the patent pooling and cross-licensing arrangements may alter the structure of the technology markets by preventing access to new technological developments.

In the United States, if patent pooling arrangements are used to exclude certain members of the industry, or to impose quantity, price, or quality restriction upon the members, or territorial allocations, it would be illegal under the antitrust laws. However, patent pooling arrangements may be legitimate, when it is ancillary to co-operative arrangements such as co-operative research arrangements. In a case regarding a pool of oil cracking patents, it was held that, since the objectives of the patent pooling were to give the public the benefit of better technology, it was not objectionable under the antitrust law.

Unlike antitrust laws, transfer of technology laws generally deal with agreements concluded between technology suppliers and technology recipients - vertical agreements - and do not include provisions directly related to patent pool, a distinctive example of horizontal agreements between technology suppliers. Chief among the reasons is the perception that national legislation of developing countries is not in itself sufficient and may not be implemented effectively with regard to such restrictive agreements which are decided upon by enterprises located in other countries. Horizontal agreements, it is believed, should be controlled through international arrangements with the cooperation and support of related states. This will be considered in the next chapter.


This chapter shows the link between competition or antitrust laws and transfer of technology. It was noted that, terms and conditions of transfer of technology agreements, due to the weak bargaining power of recipient countries, are usually in favour of the technology suppliers. Among those terms and conditions, there have been several clauses that restrict the recipients from using the technology with some flexibility. Restrictive business practices in technology licensing agreements have been very contentious. These are terms and conditions that prevent full exploitation of the licensed technology by the recipients. While most industrialised countries regulate technology licensing agreements by antitrust law, developing countries apply specific legislation to deal with issues relating to transfer of technology. These two areas of law have shared some common approaches and applications, but they also differ in some significant respects.

While some of the restrictive clauses in licensing agreements stem from the monopoly rights granted to patented technology, others are imposed because the supplier has a dominant position in the market or acts in collusion with other suppliers, and because there is lack of market information in the recipient countries. Little can be done with the cases of abuse in the absence of effective rules of international law. Since patent monopolies are granted by national industrial property law, the recipient countries have legislative power to at least minimise the adverse effects of those restrictive clauses. Therefore, some developing countries have attached particular importance to controlling restrictive clauses or behaviours imposed on their local recipients of technology through special laws to govern transfer of technology.

Despite their different scopes and conceptual approaches, it was noted that the provisions enacted pursuant to the goals of transfer of technology regulations are in many ways and aspects similar to those embodied in antitrust law against restrictive practices. Both legal approaches tend to eliminate and control the restrictive clauses.
in transfer of technology agreements as much as possible. For the antitrust laws "competition" is the criterion for the evaluation of restrictive practices, while for technology transfer regimes the criterion is economic "development".

In practice, even those developing countries, which already have antitrust laws, control restrictive business practices in transfer of technology transactions under technology transfer laws. This is because of the effectiveness of such particular laws in dealing with the restrictive clauses of transfer of technology agreements. In fact, the general experience of controlling restrictive business practices through screening of transfer of technology agreements suggests that they can have a substantial impact on the incidence of restrictive clauses and an improvement in those countries' capacity to absorb foreign technology. At the same time, the improvement in formal conditions of technology agreements does not appear to have had any noticeable effect on the inflow of the foreign investment or on the volume of contractual technology transfer.

However, although the outcome of technology transfer laws in some non-industrial countries still need to be evaluated, what is apparent is that they are much more important in terms of practical implications for national technological and economic development of developing countries than neutral antitrust type legislations. Furthermore, as noted above, with the current trend towards the internationalisation and standardisation of the rules governing the grant of industrial property, technology suppliers, mostly transnational corporations, would gain more market and bargaining power in developing countries than in the past.

108 UNCTAD Secretariat Report, The Implementation of Transfer of Technology Regulations: A Preliminary Analysis of the Experience of Latin America, India and the Philippines (UNCTAD/TT/32), Nigeria (UNCTAD/TT/74), Portugal (UNCTAD/TT/73), The Republic of Korea (UNCTAD/ITP/TEC/6), and Brazil (UNCTAD/ITP/TEC/15).


110 See supra, Chapter Four.
In the absence of a licensee-friendly patent system, there must be a special law to control restrictive business practices in order to prevent, *inter alia*, those restrictions which go beyond the rights granted by intellectual property rights. It is submitted that patent systems in general are abused mainly because of the almost complete failure of a legal system to control and limit private legal power under restrictive business practices legislations. Furthermore, in view of the weak negotiating position of domestic firms and because of the close-knit interrelationship between foreign parent companies and their subsidiaries in developing countries, these countries cannot in the long run, afford to do without appropriate measures to control restrictive business practices in transfer of technology transactions with foreign suppliers. It should be born in mind that, improved effectiveness of technology transfer regimes in controlling restrictive practices does not mean that the technology suppliers are not compensated adequately for their intellectual property rights. Rather, while those rights as well as the repatriation of royalties are respected and enforced, restrictive practices that are excessive and may frustrate economic development of the country are eliminated.

It is in the light of such a conclusion that, it will be suggested that a developing country like Iran should devise a unitary legal framework in which while industrial property, particularly patents are granted and protected, the transfer of technology and antitrust aspects of granted patents are closely and meaningfully implemented as well.111

111 See Chapter Ten and Appendix One.
Chapter Six

INTERNATIONAL COMPETITION LAW AND TRANSFER OF TECHNOLOGY

Although the developing countries through their national laws on the transfer of technology have minimised the adverse effects of abusive practices in transfer of technology agreements, their laws and regulations are valid only within their territories and countries. They are not applicable to those international transactions and arrangements which have adverse effects on their economic and technological development. In other words, developing countries for more effective action need supportive international laws as well. The question is whether present international competition or antitrust law is responsive to the technological problems and needs of a developing country like Iran. This requires an appraisal of the interaction between international antitrust law and transfer of technology. Therefore, in this chapter we will examine first international efforts for enactment of an international antitrust law. Then, the accepted law by the international community regarding the protection of competition will be analyzed to show its merits and demerits regarding the control of restrictive business practices in the transfer of technology agreements and arrangements.
I. The Havana Charter

(a) History of the Charter

Since the foundation of the League of Nations in 1927, nations have attempted periodically to formulate international rules relating to the control of restrictive business practices in international technology transfer agreements. In 1948, attempts were made to devise international norms and principles in the Havana Charter which was intended to lay down the foundations of a new trading system and create an International Trade Organization (ITO). The ITO was intended to guarantee, among other things, free but fair trade relations between members of the United Nations. For the first time in history, such an attempt was made through intergovernmental action to eliminate the abuses arising from the operations of international monopolies and cartels.

The Havana Charter consisted of general rules and criteria governing restrictive business practices in international trade transactions. However, it did not pay particular attention to the restrictive business practices in transfer of technology agreements. Rather, like the European Community and U.S antitrust laws, the Charter


2 It might be worthwhile to recall that, at the end of the Second World War, the world order was designed to rest on three pillars: the International Monitory Fund as a world central bank; the World Bank for extending project loans to developing countries and; ITO for stabilizing and protecting primary commodity prices. From those pillars, the ITO was not adopted. The newly accepted World Trade Organization under the Uruguay Round of the GATT, to some extent has the functions of the International Trade Organisation.

3 Chapter 5 of the Charter.
dealt with those international agreements and arrangements that restrict competition and have harmful effects on international trade applying equally to restrictions in technology licensing agreements and the contracts for the sale of goods.\(^4\) However, among practices that were regarded as harmful were those which prevent by agreement the development or application of technology or invention whether patented or unpatented.\(^5\) Furthermore, it included the extension of the use of rights under patents, trademarks or copyrights granted by any member of the Charter to matters which, according to its own laws and regulations, are not within the scope of such grants, or to products or conditions of production, use or sale which are likewise not the subjects of such grants.\(^6\)

Despite the fact that representatives of 53 countries accepted the Havana Charter and submitted it to their governments for ratification, the U.S. did not ratify it. Because of insufficient political will, the Charter was never adopted and the International Trade Organization was not established. Some sharp differences of opinion among the participants occurred in the negotiations of the Havana Charter.

\(^4\) Chapter 4 of the Charter.
\(^5\) Ibid.
\(^6\) The Charter has enumerated the specific practices that would be regarded harmful and subject to complaint as follows:
(a) preventing by agreement the development or application of technology or invention whether patented or unpatented;
(b) extending the use of rights under patents, trademarks or copyrights granted by any Member to matters which, according to its laws and regulations, are not within the scope of such grants, or to products or conditions of production, use or sale which are likewise not the subjects of such grants;
(c) discriminating against particular enterprises;
(d) limiting production or fixing production quotas;
(e) fixing prices, terms or conditions to be observed in dealing with others in the purchase, sale or lease of any product;
(f) excluding enterprises from, or allocating and dividing, any territorial market or field of business activity, or allocating customers, or fixing sale quotas or purchase quotas;
(g) any similar practices which the organization may declare, by a majority of two-thirds of the Members present and voting, to be restrictive business practices. See Chapter 5 Article 46(3). (emphasis added) The list of RBPs, thus is not exhausted and the members of ITO would be able to include new types of RBPs in the prohibited practices.
They still exist in the negotiations of the UNCTAD Technology Transfer Code of Conduct\(^7\) and merit mentioning here.

(b) **Irreconcilable Differences**

Although there was a general agreement that something should be done about abusive restraints in international trade, there was no consensus as to whether cartels were harmful *per se*. There were countries which expected the Charter to outlaw cartels *per se* instead of merely setting up a forum for international discussion.\(^8\) The U.S., for instance, maintained the view that restrictive business practices were inherently detrimental to commerce, production and employment. Developing countries and Canada as consumers of cartelized goods and services and the net importers of foreign technology tended to support the U.S. views.\(^9\) They pointed out that restrictive business practices were to be judged by their form, not by their effects – rule of reason.\(^10\)

On the other side of the spectrum, some countries argued that combinations and cartels functioned as one of the more useful and effective means of intelligent economic planning, subject to abuses in a few isolated instances, but on the whole benevolent in their effects.\(^11\) They were willing to investigate international

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8 Wilcox, op. cit., note 1, p. 111.

9 Furnish, op. cit., note 1, p. 324.

10 Wilcox, op. cit., note 1, p. 111. It should be recalled that the *Rule of Reason* approach refers to the legal practices in antitrust cases to consider the details of the case in question. With the *per se* rule, the reverse is the case, namely, if a particular conduct of enterprises is illegal *per se*, no further evaluation will be made.

11 Furnish, op. cit., note 1, p. 324.
restrictions and to take action against those that they found harmful, but not to commit
themselves to the belief that particular kinds of restriction were inevitably or typically
harmful. This viewpoint clearly prevailed in the draft, changing the restrictive-
practices Chapter from an indictment of such activities to an endorsement with
reservation.

It can be argued that the weak position of developing countries in the
international forum at that time, when world trade was controlled by the enterprises
of the developed market economy countries, was another reason for the failure of the
Havana Charter. If the Havana Charter generally and its provisions regarding
restrictive business practices in particular had materialised, it would have established
the basis for new and fair rules in international trade as regards commodities as well
as technology transactions at the enterprises level.

Although the International Trade Organisation was not established, those
efforts, however, spread the antitrust doctrine worldwide: encouraged enactment of
legislation to control restrictive business practices in several countries, be it as general
antitrust law, or particular to the transfer of technology agreements, generated some
positive impacts in the much later GATT negotiations regarding the effect of such

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12 Corwin D. Edwards, Control of Cartels and Monopolies: An International Comparison,

13 Timberg S., Restrictive Business Practices as an Appropriate Subject for the United Nations

14 It is interesting to recall that, in the latest meeting of the partners of GATT, a World Trade
Organisation (WTO) which is intended to fulfil some functions of ITO was established.

15 Ladas considered the ITO as the precursor of the Rome Treaty which established the European
Community. Ladas S. P., Patents, Trademarks, and Related Rights: National and International
practices at the international trade\textsuperscript{16}, and facilitated the UNCTAD Code of Conduct on Restrictive Business Practices.\textsuperscript{17}

II. Efforts to Control Restrictive Business Practices in International Forums

(a) The Work of the United Nations

Within the framework of the New International Economic Order (NIEO) to restructure international political, economic and legal systems for furthering developing countries’ economic and industrial development and their political autonomy\textsuperscript{18} in the 1970s, international antitrust issues again cropped up at the United Nations. Surprisingly, this time developing countries had initiated the formulation of international norms to deal with restrictive business practices in international trade transactions including those of the technology transfer agreements.

To address the demand of developing countries in respect of the problems stemming from restrictive practices, two separate inter-governmental negotiations were commenced: one of them was in the context of the liberalisation and expansion of


\textsuperscript{18} See supra, Chapter Four, text accompanying note 54.
trade which sought to assist those developing countries wishing to develop domestic competition and to apply competition rules, and to contribute to more transparent and fair competition in international transactions. Likewise, necessary measures had to be taken into account to expand and diversify the export trade of developing countries.19 The negotiations were finalised and led to agreement on the Restrictive Business Practices Code which is currently in force. As in the provisions in the Havana Charter, the Code deals with restrictive business practices generally.

Perhaps the most difficult issue of this agreement was a conceptual one. The question was whether to choose "competition" or "development" as the determining factor for the validity of a restrictive practice. Both sides to the issue advocated those norms and conceptions that exist in their national competition laws. According to the developed market-economy countries those agreements and arrangements which stifle competition are regarded restrictive and as a result, illegal. In other words, competition law principles should be applied for the evaluation of restrictive business practices. The developing countries, based on their economic and developmental particularities, emphasised the "development approach". They argued that the competition criterion presupposes some sort of essential equality among parties concerned, which did not in fact exist.20 In the view of developing countries, injury to their industries, not injury to the competitive structure of an international or domestic market, should be the criterion for relief.21

19 UNCTAD resolutions 25(II), 73(III) and 96(IV).

20 A representative from a developing countries, contended that, competition between unequals is a handicapped race. UNCTAD, Report of The Second Ad Hoc Group of Experts on Restrictive Business Practices, U.N. Doc. TD/B/600, TD/B/C.2/166, TD/B/C.2/AC.5/6, 8 March 1976, p. 7-8. It is interesting to note that, such a proposition has recently been expressed by Mr Karel Van Miert the EC's Competition Commissioner. He warned that the US airlines companies "grew strong on the back of the world's largest and still protected market". EC companies deserve an equal chance to become stronger before the European market can be opened to full outside competition. He added, it would not improve competition to give US companies immediate access to the European market. Financial Times, Oct. 8, 1993, p. 6. In this case "sauce for the goose is not sauce for the gander".

21 Oesterle, op. cit., note 17, p. 17.
However, in a compromise, the Code defines restrictive business practices as: "acts or behaviour of enterprises which, through an abuse or acquisition and abuse of a dominant position of market power, limit access to markets or otherwise unduly restrain competition, having or being likely to have adverse effects on international trade, particularly that of developing countries, and on the economic development of these countries, or which through formal, informal, written or unwritten agreements or arrangements among enterprises have the same impact."22

(b) UNCTAD Restrictive Business Practices Code (RBPs Code) and Technology Transfer Transactions

The application of the RBPs Code to transfer of technology agreements raises interesting issues. The Second Ad Hoc Group of Experts convened to draft the RBPs Code excluded consideration of certain restrictive practices in technology licensing agreements which were left to be considered under the UNCTAD Transfer of Technology Code.23 One may argue credibly that while the RBPs Code does not make specific reference to the transfer of technology, a number of the Principles and Rules of the Code could be regarded as relevant to technology transfer, albeit in a general manner. Put differently, the division of labour with regard to consideration of restrictive practices between the RBPs Code and the Transfer of Technology Code does not mean that licensing agreements are necessarily outside the scope of the UNCTAD Rules on restrictive business practices.24

22 The RBPs Code, op. cit., note 17, Section B, paragraph 1.

23 "The Group recognised that, patents, trademarks and other intellectual property rights frequently raised questions of competition and consumer protection. However, the Group noted that the questions of patents, know-how and trademarks, and any other RBPs relating to transfers of technology, were currently under consideration by the Committee on Transfer of Technology in line with the decision of the Trade and Development Board at its sixth special session. Therefore, whilst appreciating their relevance to its work, the group decided not to consider these questions further". UNCTAD, Report of The Second Ad Hoc, op. cit., note 20, p. 21.

24 Oesterle, op. cit., note 17, p. 38; Fikentscher, 30 Am. J. Comp. L., op. cit., note 17, p. 584.
According to the RBPs Code, enterprises should refrain from certain acts and behaviour in a relevant market when, through an abuse or acquisition and abuse of dominant position of economic power, they limit access to markets or otherwise unduly restrain competition, having or being likely to have adverse effects on international trade, particularly that of developing countries and on the economic development of these countries. Consequently, at the vertical level, partners to patent licensing agreement at least in a typical situation are regarded as "potential rivals", and therefore should comply with the Set. Likewise, horizontal agreements, such as cross-licences of patents between competing firms with additional elements in the agreements to fix prices or allocate markets, and also the refusal to license technology or license it only on disadvantageous terms to non-members of associations, can be regarded as violations of the Code.

Despite the above argument, one should bear in mind that, restrictive business practices in the technology licensing agreements are widespread and peculiar. Unlike ordinary commercial transactions, where goods are sold, in technology transactions, technology is rented, thus, restrictive clauses are imposed to retain the ownership of knowledge as well as corresponding intellectual property rights. The RBPs Code apparently does not address the particular problems arising from such practices in technology licensing agreements.

In conclusion, it was very important and potentially effective that a RBP-Code accepted by all developed and developing countries and supported by most major enterprises condemned certain acts and behaviour of enterprises as harmful for competition and the economic progress of developing countries. Further, within its institutions, information, expertise, encouragement and support for development in antitrust laws and antitrust enforcement have been provided for those developing

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26 Fikentscher, 30 Am. J. Comp. L., op. cit., note 17, p. 584.
countries without laws to control restrictive business practices and related experience.  

However, while the developed market economy countries seem to be satisfied with the Code, the result was not exactly what developing countries expected. Many of the rules developing countries wished to write into the RBP Code did not survive the negotiations. For instance, although developing countries stressed that compliance with the Code should not be voluntary without any legal sanction, because there would be the problem of enforcing a moral code, the Code was held to be not legally binding. The evaluation of restrictive business practices is based exclusively on the principles of the developed market economy countries' competition law and the "development test approach" of developing countries was downplayed. There are no strict rules prohibiting intra-enterprise restrictions or rules regulating transfer pricing. The Code does not condemn the practice of export associations which are particularly very common in the developed market-economy countries.

The "rule of reason" as a standard for judgment of restrictive practices was accepted while developing countries preferred to leave the matter to national authorities to make exceptions, particularly taking into account the development interests of their countries. Moreover, the RBPs Code concentrated on the classic "horizontal" offenses: price-fixing, market and customer allocation, and boycotts which

27 Davidow believes that, at a minimum, "for those countries that are not yet ready for an antitrust law, the Principles and Rules establish at least their rights not to be the victims of misconduct by enterprises, a right that may be furthered by the publicity aspects of United Nations studies and meetings". *Interview With Joel Davidow*, The CTC Reporter, No. 11, 1982, p. 35; see also Fidler, op. cit., note 17, p. 563.


29 The RBPs Code, op. cit., note 7, Section D.3, D.4.

30 Ibid, Section D.3.

31 Ibid, Section B(ii)9.

32 Ibid, Section D.4.
are not proper subjects for licensing agreements.\textsuperscript{33} Indeed serious anticompetitive effects can arise, especially when the licensor and licensee are actual or potential competitors. Accordingly the RBP Code is a liberal Code which most of its rules and principles are, all in all, consistent with rules of competition in developed market-economy countries.\textsuperscript{34}

(c) The Failure of the RBPs Code

In a ten year-assessment of the RBPs Code, although developing countries welcomed the advantages of the Code particularly its role in helping them to have national antitrust law, they revealed its inadequacy as well. Developing countries maintained that during the ten-year period, in many cases, the Code was infringed and that enforcement of the Code was not efficient. Accordingly, developing countries maintained that, enterprises should register their restrictive business practices. They reasoned that compared to regulations, laws and other obstacles to trade which must be notified to appropriate organisations such as GATT, and are, therefore, transparent to all trading countries, restrictive business practices of enterprises are either secret by their nature or not disclosed anywhere. In this regard, even a developed country such as the United Kingdom has experienced great difficulty in obtaining certain vital information as regards the activities of parent transnational corporations.\textsuperscript{35}

Moreover, developing countries argued that "not only had RBPs continued to be used by enterprises, in a manner detrimental to the trade and development of developing countries, but also as tariff and non-tariff barriers in world trade were gradually dismantled, States relied on the freedom of action of their champion

\textsuperscript{33} Ibid, Section D.3.


\textsuperscript{35} Ibid, pp. 3, 16.
enterprises to defend and even improve their position on the international game board."\textsuperscript{36}

As a matter of fact, developing countries in their assessment of the Code believe that, while they have been opening up their markets continually and, therefore expected the rules against restrictive business practices to be respected at national and multilateral level, the developed market-economy countries have minimised the importance of such practices and were closing their eyes to or even encouraging the use of certain practices, particularly, the restrictions on exports by their firms.\textsuperscript{37}

To remedy these shortcomings and to improve and strengthen the RBPs Code's application, developing countries have submitted new proposals. Among the proposals, they demanded that the major escape clauses such as exemption contained in paragraph D(3) regarding enterprises that are part of the same economic entity, and the footnote to paragraph D(4) concerning acts in abuse of dominant position, and the expression "unduly" which appeared in the provisions of the Set, be deleted, and the wording of paragraph 6 be amended.\textsuperscript{38} The developed market-economy countries flatly rejected the new proposals of developing countries.\textsuperscript{39}

Since the Code does not include provisions regarding restrictive clauses of technology licensing agreements within the context of antitrust, it falls short in its application to the issue of transfer of technology to developing countries. This task was given to the United Nations Code of Conduct on the Transfer of Technology.


\textsuperscript{37} Ibid, p. 3.

\textsuperscript{38} Ibid, p. 3.

\textsuperscript{39} Ibid.
III. International Regulation of Transfer of Technology

(a) Code of Conduct for Transfer of Technology

The most important international attempt to establish international legal frameworks to govern the restrictive clauses in the transfer of technology agreements was the establishment of an international code of conduct for transfer of technology. In the sixties, the unsatisfactory and quite often harmful effects of international transfer of technology agreements led many developing countries to enact their own transfer of technology laws and to request UNCTAD to initiate a responsive international legal framework to facilitate transfer of technology to their countries.

In 1974, following the adoption of the "Declaration on the Establishment of a New International Economic Order" and the "Programme of Action on the Establishment of a NIEO" by the United Nations, special attention was paid to the transfer of technology issue. The Programme of Action recommended the creation of a new technological order including measures to prevent restrictive practices in transfer of technology agreements and improve the terms and conditions of technology transfer by reforming the legal and juridical framework governing the transfer of technology to developing countries. To achieve those objectives, among other things, an international Code of Conduct for Transfer of Technology (hereafter, referred to as the TOT Code) was to be formulated.

40 See supra, Chapter Four, text accompanying note 65.

41 Ibid. It is interesting to note that while the protection of intellectual property rights has been the subject of several international Conventions, there has been no specific or systematic international agreement to protect the right of the recipient of technology. Wilner G. M., Transfer of Technology, the UNCTAD Code of Conduct, in Horn N., (ed) Legal Problems of Codes of Conduct for Multinational Enterprises, 1980, pp. 172-192, at 177.
Compared to the RBPs Code, the TOT Code had three distinctive features: first, the TOT Code was intended to govern a wide range of aspects of transfer of technology transactions including issues of intra-enterprise transfer, contracting, applicable law, foreign investment, patent and trademarks, and restrictive practices; second, as against the RBPs Code which is based on the western countries competition approach and regarded merely as a guide to national legislation, the TOT Code presented an alternative approach which rejected current practices of transnational corporations in transfer of technology agreements; third, while the RBPs Code covered international trade which will benefit both developed and developing countries, the TOT Code is directed at the particular issue of technology transfer which will benefit developing countries which are net importers of foreign technology.42

While in principle the aim of the TOT Code is to spread technology more evenly throughout the world, the industrialised countries were more concerned with the protection and preservation of their industrial property rights.43 Therefore, it was not surprising that, from the beginning of the negotiations, the two protagonist-groups of countries sought to attain different objectives: developing countries sought to obtain an international framework to deal with various aspects of transfer of technology transactions in order to spread technology and to recognise their national technology transfer regimes; the developed countries sought to pre-empt the adoption of more stringent national transfer of technology legislations.44 These characteristics indeed made the TOT Code negotiations very lengthy and complicated.

Between 1974 and 1980, a large number of meetings took place and significant progress was achieved, resulting in an agreement on a number of important issues. In

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42 UNCTAD, *The Possibility and Feasibility of an International Code of Conduct for Transfer of Technology*, UN Doc. TD/B/AC.11/22, at 1,7,8 (1974); see also Miller and Davidow, op. cit., note 34, p. 357.


44 Fikentscher, *supra*, Chapter Five, note 89, pp. 60-62; It is worth mentioning that, developing countries, inter alia, argued that technology is the common heritage of mankind. Group B strongly opposed such argument. Ibid.
the sixth session of the Conference in 1985, despite substantial progress differences still remained. The final draft of the TOT Code is a reliable reflection of views and interests of the different participating parties on the subject of transfer of technology.45

(b) Chapter 4 of the TOT Code

The major outstanding issue is contained in Chapter 4 of the TOT Code which deals with the evaluation and treatment of restrictive business practices in international transfer of technology agreements.46 In fact, Chapter 4 is regarded as the centrepiece of the Code, without which the code would be useless.47 The formulation of the chapter proved to be the most difficult subject of the entire negotiations. This difficulty is reflected already in the different titles proposed for the chapter. The Group 77 countries (developing countries) propose "the regulation of practices and arrangements involving the transfer of technology", the Group B (the industrialised countries) prefer "restrictive business practices", and the Group C (the socialist countries) spoke of "the exclusion of political discrimination and restrictive business


46 UNCTAD, Further Consultation on a Draft International Code of Conduct on the Transfer of Technology, U.N. Doc. TD/CODE TOT/57, 15 November 1991, p. 4,5. Another important outstanding issue is chapter 9 dealing with applicable law and settlement of disputes. See Resolution Adopted by the General Assembly, U.N. Doc. A/RES/48/167 of 17 February 1994. This resolution "recognises that the conditions do not currently exist to reach full agreement on all outstanding issues in the draft international code of conduct on the transfer of technology". Ibid.

practices". The main differences of opinion, however, are between the Group 77 and Group B.

A general understanding is that it should consist of two sections: Section A, introductory section (chapeau); and Section B, dealing with those restrictive business practices that should be avoided by parties to transfer of technology agreements. As regards Section B, although the Group 77 countries specified some 40 practices and arrangements to be avoided by parties to transfer of technology transactions, in the end of the negotiations only fourteen of them were the subject of substantial agreement.48 Section B, thus, lists and describes the objectionable restrictive practices in transfer of technology agreements and arrangements.

Immense difficulties were raised again when the code was to determine precisely how the aforementioned restrictive business practices should be outlawed. In this regard, the chapeau is supposed to: (i) define the practices and delineate circumstances under which they should be avoided; (ii) establish the criteria to be followed by parties or by competent authorities in the determination of whether a practice is restrictive or not for the purpose of the code; and (iii) ascertain the applicability of Chapter 4 provisions in the TOT Code to transfer of technology transactions between related parties (affiliated enterprises).49

Group B countries maintain that, in furtherance of the objectives of the TOT Code, restrictive business practices RBPs that are unduly restrictive and adversely affecting the international transfer of technology should be avoided.50 Furthermore, they believe whether a practice is unduly restrictive, adversely affecting international


transfer of technology, should be determined according to the principles and rules for enterprises set out in section D.3 and D.4 of the Set of Multilaterally Agreed Equitable Principles and Rules for Control of Restrictive Business Practices.51

This position of the developed market-economy countries is consistent with their national antitrust test approach. Accordingly, they intend to build into the TOT Code a general standard of reasonableness by which each practice should be examined in terms of its purpose and its effect on competition. Curiously enough, such proposition reveals that Group B even in the negotiations of the TOT Code, treat transfer of technology as a trade issue not a developmental issue.

By contrast, the Group 77 countries has put great emphasis on the avoidance of practices that either restrain trade or adversely affect international flow of technology, particularly those practices that might hinder the economic and technological development of acquiring countries52. In the same vein, the Group 77 countries believe that restrictions between commonly owned enterprises should be examined in the light of the rules, exceptions and factors applicable to all transfer of technology transactions.53 These positions clearly show that the main concerns of the Group 77 countries relate to potential adverse effects of restrictive business practices on their economy and development (including technological development), although such concerns might also include the possible anti-competitive effects of restrictive practices. In fact, if developing countries were seeking an international antitrust law merely to police anti-competitive arrangements, they had already endorsed the RBPs Code. The goal of Group 77 countries is that the code like their national laws should regulate foreign investment and foster economic development.54

51 Ibid; see also supra, text accompanying note 39.
52 The Draft Code, op. cit., note 45, Appendix D.
53 Ibid, Appendix D, P. 1
Another problem arises from the position, taken by the Group 77 countries, regarding the method of formulation of the provisions. In their view all restrictive practices, whether anti-competitive or not, which adversely affect the social, economic or technological development of countries are per se harmful and should be eliminated. Furthermore, the practices listed in the Chapter 4 of the TOT Code should be considered as examples of adverse practices and that they are not to be considered an exhaustive enumeration of restrictive business practices.

In response to the approach of the Group 77 countries that all restrictive business practices per se should be prohibited, the Group B argued that in their experience it is not possible, except in a very few cases to lay down legislation containing absolute prohibitions. In their view, there are certain conditions which, despite the fact that they would restrict competition, present a distinct advantage to the country. Indeed this is based on a course of reasoning that suggests that the "competition test approach" of most developed market-economy countries is being liberalised further. In these countries, particularly in the U.S., based on public interest considerations, there is a lenient approach towards restrictions in technology transfer arrangements stemming from the legitimate exercise of intellectual property rights. Such restrictions are now evaluated in a more flexible manner on a case-by-case basis compared to the situation in the eighties. As a result, "those restraints which are reasonably connected with a technology transfer ... [a]nd those which permit

57 Roffe, op. cit., note 47, p. 700.
the innovator to capture the surplus inherent in his innovation are considered pro-
competitive, even if they impose restrictions upon the licensee or third parties." 60

It is submitted that a blanket application of an a priori approach towards
restrictive business practices be adopted. This would serve to invalidate the per se rule
to the transfer process that seem to be harmful to the interests of many developing
countries. While certain restrictions indeed reflect legitimate interests of the
technology holders, they do not have serious adverse effects on the interests of the
acquiring country. The per se illegality approach may be said to discourage potential
technology suppliers from the outset not to negotiate technology transfers with
developing countries. As noted earlier, some developing countries already have
procedures in place to evaluate certain restrictive practices and are themselves not
totally committed to the per se rule of illegality of all restrictive business practices.

IV. Conclusion

At the international level, after negotiations of several drafts of the TOT Code, there is still a vacuum to be filled before an effective international anti-trust law can be realised for controlling restrictive business practices in international transfer of technology agreements. As was noted, the real obstacle for such an achievement is that the industrialised countries refuse to accept the development test approach of developing countries to govern transfer of technology agreements. Indeed, the industrialised countries possess capital formation power, technological abilities and infrastructures, strong distribution system with 150 years experience. In such circumstances the competition principles would have adverse effects on the transfer and development of technology to developing countries, although such principles may be useful for other commercial and trading activities.

In other words, had developing countries accepted the competition test approach of developed market-economy countries, the legitimacy of the national technology transfer regimes of developing countries would have been undermined, thus, they would be the real losers. Accordingly, in this uncertain international political environment, the developing countries’s main legal instrument to control restrictive business practices is still their national or regional transfer of technology laws which have originated from their own particular economic, industrial and political situations.

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61 For instance, the acceptance of the competition test approach would have the consequence that application of the national transfer of technology law to parent-subsidiary relationships would be logically impossible. Such enterprises do not compete among themselves as they form parts of an economic entity.
Chapter Seven

CONTRACT LAW AND TRANSFER OF TECHNOLOGY

I. Overview

In the Chapter Six those negative obligations, namely restrictive practices, which should be avoided in the transfer of technology transactions, were presented and discussed. It was noted that, antitrust law and antitrust-like provisions in technology transfer regimes overlap provisions in the general contract law to the extent that they declare ineffective or void those agreements and contractual arrangements which have adverse effect on competition and development. In other words, they limit the validity of certain provisions of transfer of technology contracts.

Important also are those general contractual obligations of the parties to a transfer of technology transaction of a positive character such as guarantees, contract payments, performance schedule, assignment, conditions of termination etc.. This chapter argues that for a dynamic, responsive and objective legal framework for transfer of technology, the general contract law of developing countries also has an important role to play. The contractual relations between parties to a technology licensing agreement should be framed in a way that, on the one hand, they must provide adequate protection for every legitimate right of the transferor, including know-how protection - for encouraging inflow of technology - and, on the other hand, observe the general positive obligations in order to assure the effective performance of transfer of technology agreements in the country.

Without an effective protection of secret know-how, inflow of valuable technology would be impeded and, in the absence of a particular legal framework
which rules on responsibilities and obligations of the parties to a transfer of technology contract, the terms and conditions of a technology transfer contract founded on the general contract law would be insufficient to effect a real transfer of technology. The country would, thus, become more and more dependent on foreign technology suppliers as is the case with Iran. Reliance solely on the general contract law will lead to local recipient enterprises consenting to terms of technology transfer agreements which yield short term returns to individual enterprises but which might have adverse effects on the technological and economic development of the country.

The TOT Code has provided a fair balance between the rights and responsibilities of the parties and, as a result, it may be used in shaping national legislation in developing countries.

Two distinctive legal approaches as to the positive obligations in technology licensing agreements may be conceived. One approach regards technology licensing contracts as typical commercial contracts, thus, subject to the general commercial law of contracts and intellectual property and anti-trust laws. Most developed market-economy countries have accepted this approach under their doctrine of freedom of contract. This doctrine was introduced and developed in nineteenth century Europe under the liberal, political and economic philosophies of that time which considered the rules of a free and competitive market as the best safeguards of justice between the parties. As regards transfer of technology agreements, this approach argues that it is only within the principles of party autonomy and freedom of contract that

\footnote{UNCTAD, U.N. Doc. TD/CODE TOT/47, supra, Chapter Six, note 45.}
different incentives of licensee² and the licensor ³ are freely and properly satisfied and

2 Clearly enough, the development of new technology as well as adaptation of imported technology to a particular environment requires a Research and Development capability. Enterprises with little or no Research and Development facility, have no other meaningful alternative to taking a licence. Domestic Research and Development can be a lengthy process and clearly lacks the certainty that a technology licensing agreement provides. By concluding a licence contract, such firms save huge resources on hiring qualified personnel and purchase of equipment, and also save considerable amount of time, to gain a desirable result. Further, when such a technology is understood the licensee can add its own innovations to obtain a more competitive position.

In addition to provision of continuing access to the results of Research and Development of the licensor, a licensing agreement also enables the licensee to acquire the necessary know-how and further improvements of a given product or process through appropriate arrangements.

Another incentive to enter into licence contracts is that, licensees obtain technology that could improve the quality of their products and make them more competitive in domestic market and allow them to enter export markets. Likewise, the licensee obtains a better position to compete with the licensor after the patent rights legally is expired.

Once designing around an advantageous patent is so difficult on the one hand, and be infringement of the patentee’s right, a licence appears to be the best way to obtain the technology.

On the other hand, countries that desire to limit the amount of foreign equity participation in their countries and to broaden their own control over economic operations within their borders, but at the same time want access to new technology, also prefer the licensing agreements to other types of transfer of technology arrangements. Goldscheider, International Licensing Agreements Involving Developing Countries, in Marcus B. Finnegan and Robert Goldscheider, eds., The Law and Business of Licensing, New York: Boardman, 1980, pp. 520-533; UNCTC, Licence Agreements in Developing Countries, New York, 1987, p. 3. According to another U.N report, licensing agreements with locally owned firms in Korea and Malaysia increased sharply after the introduction in 1970s of restrictions on Direct Foreign Investment. See UNCTC, Transnational Corporation in World Development: Third Survey, U.N. Doc. ST/CTC/46, 1978, p. 169.

3 From the licensor point of view, apart from the fulfilment of patent working requirements and avoiding the compulsory licensing, there are some other grounds for patent licensing as well. Through licence agreement the intangible property rights in the technology is protected and controlled, while outright sale or assignment of the patent rights would forego control over the rights. The licensor derives additional income from the intangible property through royalties. With no capital requirement, the licensor penetrates and tests markets which are otherwise not accessible. Such a situation may arises when the government of destination has established barriers to foreign-owned manufacturing ventures. Through licensing the risks are reduced, e.g. risk of expropriation by the host government. The licensing agreement may circumvent antitrust or trade regulation problems. The licensor can have reciprocal access to its competitor’s technology. Alternatively, the licensor may protect its markets against foreign competitors. It should be noted that although generally enterprises are reluctant to venture abroad and would prefer staying at home, but due to the “defensive” strategy, they must go out if they are to protect their markets. The licence contracts serve them in this way as well. On the other hand, the licensor’s country may have established trade or tax barriers that make the export of the finished product cost prohibitive or when foreign exchange or political limitations restrict imports. A patentee with insufficient resources for the utilisation of the technology may also license it to someone else to do that. Alternatively, the licensor may manufacture the product for particular markets and let other markets be supplied by its licensees. Similarly, one particular purpose of the technology may be utilised by the licensor and its licensees be permitted to utilise others. Telesio, P., Technology Licensing and Multinational Enterprises, Praeger, 1977, pp. 22-50; Fox, Jr. W. F., International Commercial Agreements, 1987, p. 63; Eckstrom L., Licensing in Foreign and Domestic Operations, 1987, § 1.10; Fikentscher W., The Typology of International Licensing Agreements in: Horn/ Schmitthoff (eds). The Transnational Law of International Commercial Transactions, 1983, p. 216.
embodied in fair terms and conditions of the contract.

Instead of over-regulating the process of technology transfer, these countries attach particular importance to the "licence climate". In this regard, their commentators have pointed to the importance of such a climate and introduced its characteristics as the existence of a reliable and predictable government, a sound protection for intellectual property rights, an honest and impartial judiciary to settle disputes, respect for the rule of law, few regulations imposed by the government on the terms and conditions of the licensing agreement; and a skilled work force. In other words, minimum state intervention is better for efficient allocation of resources, technological innovations and economic development.

As regards the important issue of the proper law clause of technology licensing agreements this school of thought, to a considerable extent, has recognised the principle of party autonomy in contractual relationships. As a result, whereas the parties of an international licence contract are left free to decide the governing contract law in relation to their mutual rights and obligations under the agreement, other aspects of the agreement such as the fiscal consequences of withholding taxes on royalties, the validity of the patent which is the subject matter of the licensing agreement, liability for causing injury and damages while rendering the services required under the agreement, or the validity of restrictive clauses are governed by the public policy rules of the country which has the most connection with the agreement.


5 It is recalled that the proper law determines performance of responsibilities by the parties, the validity of contract and patents, the invalidity of restrictive business practices, payments after the expiration of industrial property rights, legal consequences of bad performance or no performance, e.g., damages, termination, nullify of agreement and its consequences, force majeure, etc.

6 The EEC Convention on the Law Applicable to Contractual Obligations, Article 3 (3), 23 O.J., 9 October (1980), L 266, p. 2. The Article reads: the fact that the parties have chosen a foreign law whether or not accompanied by the choice of a foreign tribunal, shall not, where all other elements relevant to the situation at the time of the choice are connected with one country only, prejudice the application of rules of the law of the country which cannot be derogated from by contract, hereinafter called "mandatory rules". See also Cabanellas G, Jr. Applicable Law Under International Transfer of Technology Regulations, 15 IIC, 1984, pp. 39-67; Dessemontet F.,
This line of argument leaves the positive obligations of the parties to be decided by the governing contract law principles as much as possible.

In contrast with the above approach, the second school of thought points out that not only private interests but public interests are also involved in transfer of technology agreements. While freedom for private parties in the market-economy countries with their advanced economic, political, industrial and legal development may coincide with public interests as well, in developing countries the interests of national community is secured only by laying down in law the rights and responsibilities of the parties and enforcing them. In this regard, the application of some contract law provisions because of their generality and mostly vague character, are inapplicable to technology licensing agreements in which bargaining position of suppliers and the recipients firms is unequal and market for technology is imperfect. In other words, given the distinct characteristics of transfer of technology contracts for developing countries some modifications to normal contractual relations of the parties are necessary.7

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7 UNCTAD, The Channels and Mechanism for Transfer of Technology from Developed to Developing Countries, U.N. Doc. TD/B/AC.11/5 of 27 April 1971, p. 54-55.

A look at the historical evolution of the Iranian legal system shows that the Iranian jurists did develop principles of the private aspects of contract law. In contrast little attention was paid to the important social and economic effects of such contracts. The numerous volumes of judicial books and dissertations in which private relations - relations between people themselves and between them and Almighty- have been analyzed in details testify to the great work of the jurists but subject matters such as public interests and development and safeguarding the national economy were marginalised.

The civil code of Iran which was enacted to modernise Iranian laws to cope with the social, economic and industrial situation that existed in the thirties did not attract the interests of the jurists so much as private relations. The code defined contract in the following terms: "a contract is made when one or more persons make a mutual agreement with another one or more persons, on a certain thing, and that agreement is accepted by the latter." This definition is based on the individualistic theory of law which put individuals rights over communal interests. In the contemporary world, the concept of contract has been broadened to cover not only relations between individuals but also contracts between large enterprises and government agencies as well. However, the contractual rules derived from the Iranian Civil Code could not be stretched to apply to a transfer of technology contract because

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8 See for instance, Langroodi M. J., Judicial Schools of Thought in Islamic Law, Teheran, 1974, (in Persian).

9 Ibid.

10 The Civil Code of Iran was enacted between 1928 and 1936. Its position in the Iranian legal hierarchy is second in importance only to the Constitution. A few provisions of the Civil Code have been amended yet. The Code comprises a wide range of issues, among them are contracts, transactions and obligations.

11 Ibid., Chapter 1, Article 183.
of its complexity, the inequality of the bargaining position of suppliers and the recipient firms and the imperfections in the international technology market.\textsuperscript{12}

There is a presumption that the contracts defined by the Code and those introduced by Article 10 of the Code\textsuperscript{13} are between an individual who commits himself to supplying goods or rendering services to some one else with equal bargaining positions and under simple and private circumstances. This notion of contract does not reflect the emerging social, economic and industrial realities of Iran. The provisions in the Iranian Civil Code governing contracts are simply not geared to deal with the issues raised by collective interests of a country striving towards economic and industrial development.

In contrast, those who emphasise the public dimension of contracts such as transfer of technology contracts see these contracts as matters of public policy like serving an evolving economy. It is this approach that justifies government intervention to set rules to guide enterprises towards those manufacturing goals that are desirable for the economic and industrial well being of the country as a whole. Both government and enterprises need each other. What is required is that recognition should be given in law to the public dimension of contracts. Transfer of technology agreements should no longer be subject to the autonomous will of the parties but treated as a matter of \textit{ordre public} and national interests instead. This thesis points out that a considerable number of developing countries have already provided in their legislation for the presumption of certain conditions in transfer of technology

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\item[12] Iranian law has not kept pace with the changing political and economic landscape. While governments changed drastically, the laws have remained the same and were often regarded as a phenomenon apart from the economic and business life of the people. Iranian law has also not been responsive to the needs of business people who were placed at a great disadvantage vis\-a\-vis foreign enterprises because of the absence of major legislation specific to their activities and interests and weaknesses in the general contract law of Iran. Transfer of technology transactions in Iran are applied within the broad framework of the general principles of civil and commercial law and some rules of the patent law. This has been found to be inadequate to achieve the purposes for which these transactions are entered into, namely, to establish a local technological base and help in the diversification of Iran's economy away from crude oil extraction and rural agriculture.
\item[13] Article 10 of the code provides that: "private contracts so long as they are not expressly contrary to statutes are enforceable between the contracting parties.", op. cit., note 11.
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agreements whether expressly incorporated or not to recognize the mandatory nature of public dimension concerns.\textsuperscript{14}

(a) Protection of Secret Know-how

According to a survey conducted by the present writer, in Iran most of the valuable patented inventions need additional manufacturing process or know-how to be worked industrially and commercially to the extent that the expected quality and quantity can be achieved.\textsuperscript{15} In the same way, an analysis of transfer of technology agreements in Iran reveals that between 1989 and 1992, out of 50 transfer of technology agreements approved by the Ministry of Industry of Iran, the number of cases where patent rights were actually the point of discussion was not more than 1 percent.\textsuperscript{16} Those agreements were all transfer of technological know-how agreements.\textsuperscript{17}

It should be born in mind that know-how either is omitted intentionally from the disclosure of the invention by the patentee, or was simply unavailable at the time of disclosure. Moreover, it might be so standard in the country where the technology

\textsuperscript{14} For instance see Mexico, Technology Law, Art. 1, which provides that, “this law is of public order and of social interest...”; The public aspects that transfer of technology laws require are, the conditions of validity of the contracts, the obligation to register, the obligations of the parties \textit{vis-à-vis} the authorises, certain rights and obligations of the parties with respect to the transfer of technology, RBPs and the obligation to report royalties. UNCTAD, Common approaches, UN. Doc. DT/B/C.6/91, \textit{supra}, Chapter Two, note 25, p. 14.

\textsuperscript{15} The study was conducted during my two visits to Iran for the purpose of my research. In this regard, documents of 40 patented inventions were studied, and some authorities and directors of private enterprises were interviewed. As the Director of the Iranian Patent Office acknowledged, those patent documents are so insufficient, vague and general that Iranian firm should conclude agreement with the foreign patent holders to acquire necessary know-how for the industrial exploitation of those inventions. See Interview with the Director of the Iranian Patent Office, \textit{supra}, Chapter Three, note 57; see also infra, Appendix Four.


\textsuperscript{17} Ibid.
originally was invented that specifying them is regarded as unnecessary. Whatever the reason, as will be noted later, the Iranian Patent Act neglects the information function of patents in general.

However, the fulfilment of the thorough disclosure requirement, does not necessarily mean that the patentee and licensee will succeed in their efforts to manufacture and apply the technology economically and quickly. This is particularly true in the case of raw inventions and sophisticated technologies which can only be worked when supplemented by special expertise and knowledge which is acquired through long experimentation. Such a special expertise consists of descriptions of manufacturing process, recipes, formulae, designs or drawing and is usually transferred through trade secret agreements. It has been revealed that almost two-thirds of technologies are transferred under trade secret protection agreements. The economic and technological importance of secret know-how in disseminating technical knowledge has created a tendency to provide sufficient legal security for the protection of secret know-how in some industrialised and less industrialised countries. The European Economic Community probably has introduced the most comprehensive

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18 See infra, Chapter Nine.

19 Ibid.

20 Despite the "enablement" requirement, patent specifications are not required to be engineering documents that reveal every possible facet for the manufacture of the invention. See Todd F. V., Agreement Consummation in International Technology Transfers, 33 IDEA, 1993, pp. 241-295, p. 275.


22 The Restatements of the law of Torts of the United States, 1939 ed., Section 757. The Restatement observes that: "A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it". Ibid.

definition of know-how,\textsuperscript{24} as a "body of technical information that is secret\textsuperscript{25} substantial\textsuperscript{26} and identified\textsuperscript{27} in any appropriate form".

A legal framework for the transfer of foreign secret know-how for developing economies seems to be vital. Such a framework, while encouraging the transfer of valuable know-how, will ensure that know-how right holders do not misuse their rights as well. In the case of Iran, although Parliament has tried to provide for general protection of secret information, the provisions fall short of creating a meaningful and comprehensive legislation with regard to secret know-how for transfer and development of technology.


\textsuperscript{25} The term "secret" means that the know-how package as a body or in the precise configuration and assembly of its components is not generally known or easily accessible. Ibid, Article 1(7)(2).

\textsuperscript{26} The term of "substantial" means that the know-how includes information which is of importance for the whole or a significant part of (i) a manufacturing progress or (ii) a product or service, or (iii) for the development thereof and excludes information that is trivial. Such know-how must be useful, i.e. can reasonably be expected at the date of conclusion of the agreement to be capable of improving the competitive position of the licensee..... with other manufacturers". Ibid, Article 1(7)(3).

\textsuperscript{27} The term "identified" means that the know-how is described or recorded in such a manner as to make it possible to verify that it fulfils the criteria of secrecy and substantiality and to ensure that the licensee is not unduly restricted in his exploitation of his own technology. To be identified the know-how can either be set out in the licence agreement or in a separate document or recorded in any other appropriate form, provided that the separate document or other record can be made available if the need arises. Ibid, Article 1(7)(4).
(b) Iranian Penal Code and Disclosure of Trade Secrets

The Penal Code of Iran prohibits the disclosure of industrial secrets and provides one to three years imprisonment for the offence.\(^{28}\) The law does not define what an industrial secret consists of. Instead, the law introduces the elements of an action for disclosure for misuse of industrial secrets as follows:

(i) the offender should have acquired the industrial secrets due to his "technical status" or his "trustworthiness status". Put in a simple way, the offender was in a fiduciary position under the contractual or administrative relationship between the industrial secrets owner and the offender;

(ii) the industrial secret should be concerning an invention and the way that an invention is carried out. This requirement confined the protection to information that is related to inventions and excludes other types of non-industrial technology information, such as business, administrative, commercial and marketing technology which are necessary steps towards the efficient use of the technology;

(iii) the revelation of the industrial secrets is against public interests. The interpretation of this provision is very dependent on the term "public interests". The question is whether the disclosure of a foreign secret know-how by an Iranian recipient would endanger the public interests.

(iv) the industrial secrets are being misused. The term "misuse" is again vague and needs to be elaborated to bring more certainty.

\(^{28}\) Islamic Punishment Law of Iran, Art. 125, I.O.G., No. 10972, November 1983. The Article states:

*Any one who, due to his technical status or his trustworthiness status, is informed of secrets of an invention or the way that an invention is carried out, and divulge or misuse them in a way which is harmful to the public interests, shall be convicted from one to three years imprisonment.*
It is submitted that such an indirect, vague and limited protection of secret know-how appears to be discouraging the transfer of valuable know-how. The nature of know-how is such that once it is communicated it is lost because it cannot be retrieved. Therefore, valuable know-how is either not licensed at all or communicated only when the licensor perceives the contract as "etched in stone". This is particularly true in high-technology industries. Since the essential value of such information indeed depends on its being kept secret, the licensee should exercise the necessary security precautions to preserve such secret information. The duty to do this has been widely accepted. Consequently, Iran, in order to facilitate inflow of needed valuable technology, should attach particular importance to the protection of secret know-how.

The Islamic Punishment Law of Iran has left no doubt that the Iranian legislator has appreciated the important role of such a body of knowledge in the process of transfer of technology to the country. However, a close look at the law indicates that the absence of a precise definition of terms such as "public interests" and "misuse" may be discouraging and problematic. The law is silent also regarding the disclosure of the secret know-how after the termination of the agreement. Likewise, the law has not clarified the situation in which an employee who has knowledge of the know-how passes the information to a competitor-firm. On the other hand, having not defined "secret know-how" precisely, there is the danger that information which is in the public domain abroad but not in Iran be considered as industrial secrets know-how. This would impede the transfer and diffusion of technology to the country. And finally, the country as a whole lacks any appropriate legal institution responsible for the implementation and improvement of the secret know-how law in the country. As a consequence of that the proposed law,

29 Todd F. V., op. cit., note 20, p. 293.


31 UNCTAD Draft Code, op. cit., note 1, Sect. 5.4 (iii).

32 Article 125, op. cit., note 28.
recommended in the thesis for the development of technology in Iran, is intended to protect secret know-how in the context of the whole process of transfer of technology to the country. 33

The above concerns have been taken into account by Chapter 5 of the TOT Code 34 which is devoted to those positive contractual obligations that should be complied with by the parties to a transfer of technology transaction. Similar to other international uniform codes, the purpose of Chapter 5 of the Code is to provide internationally applicable norms and guidelines in the field of contract law. 35 Except for two provisions relating to confidentiality and dispute settlement and applicable law, all the other provisions in Chapter 5 of the TOT Code were accepted by the various negotiating parties. In the same vein, some advanced developing countries, through their own statutes governing technology transfer transactions, mandate the parties to observe certain terms, conditions and practices while negotiating, concluding and executing transfer of technology agreements. 36

At the negotiating phase of technology transfer agreements, the parties are required to be responsive to the declared official economic and social development objectives of the recipient country. For instance, since the use of local resources is very important for successful achievement of import substitution and saving of foreign exchange, the parties should negotiate specific provisions for the use of locally available resources. Such resources including local materials, technologies, technical skills, consultancy and engineering services and other resources are to be inventoried and subsequently made available by the potential technology recipient. 37 It is

33 See infra, Appendix One.


35 Fikentscher, supra, Chapter Five note 89, p. 121.

36 For instance see, Brazil, Normative Act No. 015, Sect. 6.1.2. (c), 6.1.3, 6.1.4; Government of India, Guidelines for Industries, 1982, Part I, Ch. IV.4(x), reprinted in UNCTAD Compilation, op. cit., note 23.

37 Ibid; UNCTAD, Draft Code of Conduct, op. cit., note 1, Chapter 5, Sect. 5.2.
important to note, however, that, despite the necessity and desirability of using local capabilities, a strict obligation to use local resources, may affect the quality of the production, and the supplier may be reluctant to give performance guarantees where local inputs, which are outside his control, are used.

In the same way, at this stage the supplier of technology should make adequate arrangements as regards unpackaging in terms of information concerning the various elements of the technology to be transferred, such as that required for technical, institutional and financial evaluation of the potential supplying party’s offer. The supplier should also disclose, "to the actual extent known to him, any limitation, including any pending official procedures or litigation which adversely concerns, in a direct manner, the existence or validity of the rights to be transferred, on his entitlement to grant the rights or render the assistance and services specified in the proposed agreement." 

In order to facilitate and make possible the disclosure of needed information before conclusion of the contract, the TOT Code wisely provides that parties "should keep secret, in accordance with any obligation, either legal or contractual, all confidential information received from the other party and make use of the confidential information received from a potential party only for the purpose of evaluating this party’s offer or request or for other purposes agreed upon by the parties." Under some national transfer of technology laws, particular aspects of confidentiality such as illegal disclosure of know-how by employees are protected. Some technology transfer laws have either stipulated the maximum duration of the

38 Ibid., Chapter 5, Sect. 5.2.
39 Ibid, 5.3 (C) (ii).
40 Ibid., Sect. 5.3 (iii).
confidentiality obligation,\(^{41}\) or the continued use of the secret know-how after the termination of the agreement or the passage of certain time period.\(^{42}\)

III. Other General Provisions

(a) Proper Law

Faced with numerous cases in which licensors with stronger bargaining power have imposed their preferred choice of law on the licensees to their detriment, most developing countries have departed from the principle of absolute party autonomy in licensing agreements. In the laws enacted by the countries specifically to regulate transfer of technology agreements, the countries have provided that the agreements shall be subject only to their own laws and jurisdiction and not to the laws of the technology exporting countries. In other words, the national laws of the recipient countries will govern the validity, interpretation and performance of transfer of technology agreements.\(^{43}\)

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\(^{41}\) Technology licensing agreements shall not be registered if the acquirer is under the obligation to keep secret the technical information given by the supplier, beyond the term of the acts, arrangements and contracts or beyond the times established by the applicable laws. Mexico, Technology Law, Art. 15, Sec. XI, UNCTAD Compilation, op. cit., note 23.

\(^{42}\) The contract [for the supply of industrial technology] shall not contain... any clause that prevent the free use of technology, following the lapse of a period deemed to be reasonable after the termination of each item of information, Brazil Act. No. 015, Sec. 4.5.2. (d) (vi) and 6.5.2. (b), UNCTAD Compilation, Ibid.

\(^{43}\) UNCTAD, UN. Doc. DT/B/C.6/91, op. cit., note 14, para. 46. The law of the licensee is the best suited to such an agreement because above all it is primarily the licensee's antitrust, transfer of technology and industrial property laws that must be complied with. The so-called territoriality doctrine of intellectual property rights requires that the validity of the patent will be judged according to the law of the country which issued the patent. Apart from the validity of the patent, other important issues such as creation, content, scope and termination, as well as the permissibility of the transfer and licensing of the patent are determined solely by the law of the granting patent country. Likewise, it is the country of the licensee which is, in the common law world, the natural centre of gravity of the contractual relationship. It is also the licensee that use the technology over
A survey of provisions relating to the proper law in transfer of technology regimes shows considerable interaction between transfer of technology laws and the general contract law. Technology transfer laws provide the substantive framework for licensing agreements including the rights and duties which cannot be opted out by agreement between the parties. The laws have emphasised expressly the mandatory nature of public interest considerations in transfer of technology agreements.44

In practice, there is no consistency in the applicable law provisions in transfer of technology regulations. Some countries provide explicitly for the application of the law of the licensee.45 Others either prohibit foreign law from being applied46 or do not have explicit rules on the proper law, but, usually, the registration office requires that the national law should be the proper law of transfer of technology agreements.47

It is submitted that, a radical departure from the party's autonomy to choose the law of their contractual relationship cannot be constructive. Traditionally, party autonomy has had a significant impact on international commercial transactions. This party autonomy, however under many legal systems is not deemed to be absolute. Rather, the party’s autonomy is subjected to public policy "order public" rules of country which has a close connection with the contract and to the territorial nature of


44 For instance see Mexico, Technology Law, art. 1, reprinted in UNCTAD Compilation, op. cit., note 23.

45 The Mexican Federal Constitution, Article 133, and Article 7 of Mexican transfer of technology law which provides the all registrable acts, agreements or contracts of transfer of technology shall be governed by Mexican laws or by the applicable international agreements or treaties to which Mexico is a party. Ibid.


47 For instance Brazil, Transfer of Technology Law, reprinted in UNCTAD Compilation, Ibid.
industrial property rights.\textsuperscript{48} The public policy provisions include mandatory laws such as transfer of technology and antitrust law, which are aimed to safeguard the national economy and the public interests and cannot be derogated from by contract. Under conflict-of-law rules, public policy enables the judge to exclude any foreign law which its application would violate the social or legal concepts of his legal system.\textsuperscript{49} As a result, parties to transfer of technology agreements can be free to choose the proper law of their contractual relations. This choice of law, however, should not prevent the application of the relevant rules of any of the national legal systems having a substantial connection with parties or the transactions which cannot be derogated by contract.

The TOT Code to strike a balance between the parties' interests adopted this approach as well. As was mentioned earlier, Chapter 9 of the draft code of conduct on the transfer of technology which deals with the issue of proper law is one of the most controversial and no agreement has yet been reached. For a reconciliation of the different views, the following has been suggested by the President of the Conference to draft the TOT Code during its sixth session: "Parties to transfer of technology transactions may, by common consent, choose the applicable law to their contractual relations, it being understood that such a choice of law will not limit the application of relevant rules of national legal system which cannot be derogated from by contract."\textsuperscript{50} It is believed that, such a multi facet and controversial issue maybe

\begin{itemize}
\item \textsuperscript{50} U.N. Doc. TD/CODE TOT/47, op. cit., note 1, Appendix A, p. 6. It should be noted that "relevant rules" is meant mandatory rules or public policy rules. The reference was not made directly to "public policy" in order to minimise the possibility of extraterritorial application of the "public policy" of the technology-exporting State -a possibility which is enhanced by the reference to the public policy of the countries of the parties concerned. See U.N. Doc. TD/CODE TOT/52, op. cit., note 43, p. 39. The U.S. has assumed extraterritoriality application for its antitrust law. This has made controversial conflicts with other nations. See generally, Jennings, Extraterritorial Jurisdiction and the United States Antitrust Laws, 33 Brit. Yb. Int'l. L., (1957); For a discussion of the issues of the Chapter on applicable law and dispute settlement of the UNCTAD
\end{itemize}
determined better in the context of a particular international treaty, as the European
Union members did.\(^\text{51}\)

(b) Settlement of Disputes

Disputes arising from a technology transfer agreement, not settled through negotiation
and conciliation, may be submitted to courts of law or arbitral tribunals. Subject to the
same conditions pertaining to proper law which were indicated above, courts and
tribunals of the technology acquiring country shall have jurisdiction over disputes
concerning public policy issues. Where public policy is not in an issue, the contract
may allow a choice of forum. However, the forum chosen must have a "direct,
effective and permanent relationship" with the contract.\(^\text{52}\) Accordingly courts or
arbitral tribunals of the country of residence of the recipient can be convenient choices
of the forum for the resolution of disputes.

Transfer of technology statutes of some countries make it clear that the parties
are obligated to bring all claims before the national adjudicatory bodies of the licensee
country.\(^\text{53}\) It is submitted that, unless a convention on the recognition and
enforcement of judgments is in force between the two countries, such a compulsory
local jurisdiction may create enforcement problems where the defendant is the foreign

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52 UNCTAD Draft Code, Ibid, Appendix D, Section I.B. para. 1-2; for the issue of the settlement
of disputes in transfer of technology agreements see generally, Zuijdewijik T. J. M., The UNCTAD

53 For example, Mexico, Law on Transfer of Technology; the Laws and Guidelines of Nigeria, and
India, reprinted in UNCTAD Compilation, op. cit., note 23. Mention of the forum did not appear
to be crucial for the TOT Code because it is implicit in the recommended text for proper law. See
\textit{supra}, text accompanying note 43.
technology supplier. Furthermore, the imposition of rigid rules of the proper law and forum can have adverse effect on the transfer of advanced technology to developing countries. In this case as Dessemontet pointed out\(^{54}\) the choice of the licensor law has phycological effects on him and provides confidence to evaluate the extent to which the contract binds the licensee, and the extent to which he may consequently disclose confidential techniques and know-how to licensee. It is suggested, therefore, that the proposed Iranian Board on Development of Technology\(^{55}\) will decide the proper law of those transfer of high technology agreements whose transferers insist on their proper law.

In the same vein, as an alternative to the courts, parties to a technology agreement might include in their agreement a clause binding them to use arbitration as the means for settling disputes concerning the agreement. The place of arbitration and the manner of choosing the arbitrators and the rules of procedure under which arbitration is to be held can be detailed in the agreement. In this regard, there is a general agreement regarding international rules on arbitration procedures\(^{56}\) and multilateral conventions on the enforcement of arbitration awards.\(^{57}\)

(c) **Guarantees**

Perhaps the most difficult question in the whole process of technology licensing agreement is that of guarantees from the licensor that his technology shall achieve the defined result at the certain cost and within the specific period of time. The advantage

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54 Dessemontet F., op. cit., note 6, at 13.

55 See *infra*, Chapters 9 and 10.


of such guarantees is that the supplier will do his best to ensure that the manufactured product conforms to the contractual requirements.

According to national contract laws and court decisions, a licensor is not held responsible for a guarantee without an express covenant to that effect in the licensing agreement. Under some technology transfer laws a contract, which does not contain a guarantee clause and provision for compensation for default, is not valid. For instance, the transfer of technology law of Brazil requires express terms in a licensing agreement calling for all particulars of the technology to be transferred to the licensee and providing him with a guarantee that the intended results of the licensing agreement will be achieved.58

The TOT Code requires three guarantees: first, the technology supplier’s guarantee that the technology meets the description contained in the technology transfer agreement;59 second, the technology supplier’s guarantee that the technology, if used in accordance with the supplier’s specific instructions given pursuant to the agreement, is suitable for the manufacture of goods or production of services as agreed upon by the parties and stipulated in the agreement;60 and third, performance guarantees by the supplying party as regards the consequences of failure to meet that performance.61

58 Brazil Act No. 015, op. cit., note 23, Section 5.5.1. (e) and 4.4.
59 Draft TOT Code, op. cit., note 1, 5.4. (iv).
60 Ibid, 5.4. (v).
61 Ibid, 5.4. (viii).
(d) Duration of Technology Licensing Agreements

Another example of the interaction between transfer of technology and contract law is the provision relating to the duration of the agreement. Licensees are obligated by the transfer of technology law not to exceed the duration of the transfer of technology arrangement exceeding a specific period. By limiting the duration of the licensing and by refusing an automatic renewal clause, those countries seek on the one hand to ensure adequate adaptation and absorption of the technology during the original span of the arrangement, and on the other to preclude extra royalty payments.

In doing so, some transfer of technology regulations specify that the duration of the arrangement may not exceed the period of validity of the protection accorded to industrial property rights which is equivalent to setting a time limit for the duration of the agreement. Other technology transfer regimes prohibit an unduly long duration. In the case of duration of those transfer of technology agreements which contain unpatented know-how, it is noteworthy that, some technology transfer laws

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62 For instance the laws, regulations and policy guidelines of Brazil, India, Mexico, Nigeria, Philippines and Venezuela in UNCTAD Compilation, op. cit., note 23.


64 Cieslik J., An Overview: Practices in Third World, 24 Les Nouvelles, reprinted in Bell and Simon, The Law and Business of Licensing: Licensing in the 1990s, 1992, vol. 2, pp. 441-473, p. 468. He observes that: Since licensors often attempted to extend the duration of contracts by including slight amendments and modifications to existing arrangements, the rules adopted for extensions were usually much stricter than those governing registration procedures for new ones. Ibid at 469.

65 Byrne N. J., Law of Contract: Transfer of Technology to Developing Nations, New Law Journal, March 29, 1979, pp. 309-312, p. 310; Brazil, Normative Act No. 015, op. cit.; Duration of technology agreements in developing countries with technology transfer regulation has been mostly five years, but for sophisticated technologies is 10 years. See also Cieslik, Ibid.

66 For instance, Section 3, para. 14 of the Spanish Technology Regulation, reprinted in UNCTAD Compilation, op. cit, note 23.
also have introduced a time limit.\textsuperscript{67} That is to say, following the lapse of a period, the licensee should be allowed to use the transferred technology without any more payments.

\textbf{(e) Legal Validity of Patents Involved}

The licensee of a technology which is covered fully or partly by patents will seek to obtain a position which is not likely to be endangered by the invalidation of those patents. As will be considered later\textsuperscript{68}, if patents are granted after a thorough examination as to substance and universality, it provides a security that the patents will not be challenged likely. In any case, the licensor is normally required to warrant that as far as he is aware there is no prior use or publication or other ground for objecting to the patent and that he has not previously assigned or dealt with the patent in any way which might affect the validity of the patent or of the licence.\textsuperscript{69}

By such a declaration, the licensor gives assurance to the licensee and concedes that he will be in breach of contract if the patent is invalidated. In the event of the invalidation of the patent(s), since payments under the licensing agreement are based on the continued existence of the patent rights, the question arises as to the rights of the licensee to terminate the agreement and to recover royalties that have been already paid. These and other important legal questions deserve to be clarified by the parties to the technology licensing agreements.

\textsuperscript{67} Brazil Act. No. 015, Sec. 4.5.2. (d) (vi) and 6.5.2. (b), reprinted in UNCTAD Compilation, op. cit, note 23.

\textsuperscript{68} See Chapter Nine.

\textsuperscript{69} In other words, the licensor declares that "on the date of signing, it is to the best of its knowledge, not aware of third parties' valid patent rights or similar protection for inventions which would be infringed by the use of the technology when employed as specified in the agreement". UNCTAD Draft Code, op. cit., note 1, sect. 5.4 (vi).
(f) Non-infringement of a Third Party Patent

Another important question regarding the licensed patents arises when third parties object to the manufacture of the licensed product by the licensee. The licensee is alleged to infringe the rights of the third parties merely by manufacturing the licensed product. It is argued that the licensor owes his licensee an implied duty to protect him against a claim that the subject matter of the licensed patent infringes another patentee’s rights. As a result, it is not uncommon that the licensee often requires indemnification by the licensor against suits alleging patent infringement brought against him by third parties. Such a warrantee may also be required by the transfer of technology laws.  

(g) Most-Favoured Licensee Clause

A “most-favoured licensee” or non-discrimination clause provides that if the licensor later executes a licence agreement with a third person on terms more favourable to that person than those accorded to the licensee, the licensor will give the licensee the benefit of the more favourable terms. This clause is particularly important for the licensee who is among the first to deal with the licensor and the technology is to be further developed or there is a likelihood of competition from other licensees in the same market. It is submitted that the formulation and application of this clause can be difficult and troublesome. On the one hand information on the contents of other licences granted by the licensor is often not accessible to the licensee. On the other

70 Technology Law of Mexico, Art. 15, Sect. XII, op. cit., note 22, which provides, the Ministry of Patrimony and Industrial development shall not register the acts, agreements or contracts referred to in the second Article thereof, if it is not expressly established that the supplier shall be liable for the infringement of industrial property rights of third parties; [The contract shall not contain any clause which] exempts the supplier from liability in any action brought by third parties in respect of faults or defects or for infringement of industrial property rights inherent in the technological content of the contract. See also Brazil, Act No. 015, Sect. 4.5.2.(d)(vii), op. cit., note 23.
hand, if the royalty rate, for instance, set in a later licence is lower and other terms such as conditions on supply of materials, the training of personnel, the provision of follow-up technological advances, the size of the market and the economic conditions in the two agreements are different, it may be difficult to decide which agreement is actually the more favourable. 71

However, it is recommended that, despite the above mentioned weaknesses, a most-favoured clause be included but with a provision that the licensee has a right to opt for the terms of a later licence or to continue under his original agreement. At the same time, the licensor may be required not to discriminate among the various licensees in terms of the price or other consideration for similar technologies under similar circumstances. 72 As was mentioned above, by unpackaging the technology, the licensor can provide more information regarding the prices of different parts of the technology to the licensee to enable him to monitor other transactions in the market.

71 Such clauses also are considered against unfair competition and RBPs law in some countries and may give rise to legal conflicts. Partly because of these difficulties, only few national laws on the transfer of technology have incorporated the most favoured licensee clauses. UNCTAD, UN. Doc. DT/B/C.6/91, op. cit., note 14, p. 12-13.

72 UNCTAD draft Code, op. cit., note 1, sect. 5.4 (xii) (c).
III. Conclusion

The above examination shows that transfer of technology laws can impose positive obligations on the parties to a transfer of technology agreement over and above those obligations required by the general contract laws. Compliance with those positive obligations are critical to the effective performance of transfer of technology agreements and, therefore, should override any conflict with general contractual obligations. Despite the advantages of special legislation to address transfer of technology issues, most developing countries, including Iran, have generally relied on their general contract laws to govern transfer of technology agreements. As a result of the failure on the part of these countries to provide an appropriate institutional and legal framework, there is no protection to protect the secrecy of the "know-how" of technology suppliers who then turn to other devices such as restrictive business practices which in turn prevents the flow of technology into these countries. On the other hand, the imposition of excessive and rigid obligations will only scare away technology suppliers who will then keep away entirely.
SECTION III:
LEGAL FRAMEWORK WITHIN WHICH THE FLOW OF TECHNOLOGY TAKES PLACE IN IRAN
Chapter Eight

FOREIGN INVESTMENT LAW OF IRAN AND TECHNOLOGY TRANSFER

Since the end of the Second World War much of the modern advanced technology has been developed and commercially exploited by multinational corporations.¹ They hold the centre stage in world economy and are the driving force behind the accelerating pace of technological innovations and some of them are at the cutting edge of modern science and technology by investing enormous resources in pure research.² The main strengths of multinational corporations lie in their ability to mobilise financial, material and human resources from around the world and marshalling them to carry out major business ventures. They have the capacity to develop new technology and skills and constantly introduce new products to compete in world markets³. Multinational corporations possess and control three important elements of development, namely, human and financial capital and know-how.

Multinational corporations also have a head-start in the markets of the developing countries and have unmatched marketing organisations and know-how. Those abilities and the incentives to seek new markets across borders as well, can

¹ A multinational corporation or enterprise is a combination of companies of different nationality, connected by means of shareholding, managerial control or contract and constituting an economic unit. Professor Schmitthoff expressed the view that "the multinational corporation is from legal point of view, conveniently ambiguous: in many respects its subsidiaries are treated as national companies in the host countries but, as an economic unit, it does not lose its character as pertaining to the home countries." See Schmitthoff C. M., The Multinational Enterprise in the U.K. in Hahlo H. P., (eds.) Nationalism and the Multinational Enterprise, 1973, p. 22.


make multinational corporations as the major conduits for the transfer of technology to developing countries. Properly drafted and regulated technology agreements between developing countries and multinational corporations can help in the avoidance of unnecessary and wasteful duplication of efforts on the part of the developing countries, to reinvent the wheel so-to-speak, be cost-efficient and lead to significant productivity gains. Multinational corporations adopt different mechanisms for the commercialisation of their technical assets. Among them are: direct foreign investments, licensing agreements, joint ventures, franchising, management contracts, marketing contracts, technical service contracts, turnkey contracts, and international sub-contracting.

Since the 1950s, developing countries have tried to attract multinational corporations and to benefit from their potentially positive contributions to the transfer, development and diffusion of technology, by enacting laws and regulations to minimise the non-commercial risks of investing in their countries. The potentially negative aspects of their activities have been subject to control by other laws and regulations and there has always been a degree of tension between the two categories of laws and regulations.

I. Law Concerning the Attraction and Protection of Foreign Investment in Iran

In common with other developing countries, Iran’s industrialisation also depended heavily on multinational corporations. In 1955, the "Law Concerning the Attraction and Protection of Foreign Investments in Iran" and in 1956 its regulations were passed aimed at providing a range of incentives for multinational corporations

to invest in Iran. The law provided many desirable conditions for these corporations to operate in the country. According to the law and its regulations, foreign investment may be in the forms of foreign currency, machinery, machine tools, spare parts, raw materials, patent rights related to and part of the productive operations, and expert services and the like. Compared to other developing countries which through a positive list prohibit entry of foreigners to some sectors, Iran has allowed entry of foreign investment into all economic sectors that are open to local private investors.

The foreign capital investment as well as profits were given absolute legal protection by the government. The investments had to be made for development, rehabilitation, and productive activities in industry, mining, agriculture, and transport. All rights, exemptions, facilities accorded to domestic capital and private enterprises also applied to foreign capital and firms. Persons, companies, and private firms of foreign nationality investing in Iran were required, if possible, to specify "whether operations will be carried out independently or in partnership." The government guaranteed the repatriation of the net profit derived from the investment in the same currency as originally imported. In the case of nationalisation, the government guaranteed a fair compensation. The investments, however, were required not to "involve any monopoly rights or special privileges."

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5 The law of investment, Article 1 and the regulations Article 2.
6 The regulations, Article 1(a).
7 The law of investment, Article 1.
8 Ibid.
9 Ibid, Article 3.
10 The regulation, Article 3(e).
11 The law of investment, Article 4.
12 Ibid, Article 3.
13 The regulations, Article 1.
Available statistics show that, out of 1850 registered foreign companies in Iran, 195 of them relied for their formation on the foreign investment law of Iran. The actual number of multinational companies in the country totalled 255, because in some cases more than one multinational company was involved. Unfortunately, these investments were not made for the establishment of manufacturing facilities and transfer of technology to the country. They were attracted by the Iran's lucrative market resulting from strictly enforced application of high tariffs on imported finished packaged goods. Domestic value added in many of foreign companies' subsidiaries in Iran were derived only from packaging, assembly, production of less-sophisticated items or simple processing of finished or semi-finished products imported from abroad. In other words, the required intermediate and capital goods with relatively low import tariffs were provided by the parent enterprises whose subsidiaries in Iran were engaged mostly in the final stages of production or packaging for the local market.

Almost all industries established through foreign investment in Iran, particularly those which dealt with sophisticated products, had a very limited local content. This was one of the principal weaknesses of past foreign investments in the country. The industries that were established pursuant to the foreign investment law

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14 Ministry of Economic Affairs and Finance, *List of Foreign Investors in Iran*, August 1976, (in Persian); *Keyhan Havai*, November 15, 1992, p. 18. From the point of view of the amount of funds involved, 34% of those investments was less than one million dollar, and only 7% was more than one hundred million dollars. From the type and content point of view, between 1966-1977, subject matters of 28% of those investments were supposed to transfer technical know-how for production. In 24.9% of the investments, licence was granted. 14.9% of the investments were made for installations. In 13.8% of the investments the sole agency was granted to the Iranian counterparts. In 9.7% of the investments the intention was solving technical difficulties. And only in 6.7%, skilled and technical personnel had to be trained. Ibid; see also *Financial Times*, *Iran: State a Barrier to Investment*, July 25, 1977.


17 Rahnema, op. cit., note 15, pp. 293-310,
of Iran were mainly capital-intensive. They merely assembled under license imported CDK (completely-knocked-down) parts and materials to produced consumer goods. In this regard good examples are the establishment of pharmaceutical firms, car assembly plants, radio and television assembly plants and other electronic appliances like electric meters and telephones. The largely assembly plants used mainly local cheap labour and took advantage of the financial resources and the large growing markets in the country but, by the very nature of their operations, hardly any planned transfer of technology to the country took place. Only 6.7% of all foreign investments made in Iran before the 1979 revolution provided for training programs for local skilled and technical personnel.

The Iranian foreign investment law was demonstrably inadequate as an instrument for the transfer of technology through investments by foreign nationals. Unlike some developing countries which benefited from foreign investment in building their technological capabilities and realising one of their development objectives, the Iranian law, although it encouraged foreign investment, failed to mandate maximum utilisation of local supplies and manpower and provide means for better absorption of the imported technology. The Iranian law did not call for the

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21 See generally, Alizadeh, P., *supra*, Chapter One, note 44.

22 *Keyhan Havai*, November 15, 1992, p. 18.

contribution and firm commitment of foreign enterprises to the transfer, development and diffusion of technology in the country.\textsuperscript{24}

The wording of the law and other evidence indicate that the main concern in regard to foreign private investments in Iran was the net movement of funds out of Iran rather than technology transfer to the country.\textsuperscript{25} As a result, a considerable number of the provisions of the regulations were concerned with financial matters rather than measures to ensure technological spill-over to local firms. Surprisingly, during the period between 1957 and 1976 when the foreign investments took place in Iran, the country was building a growing reserve of foreign currency derived from her oil revenues to the extent that the Pahlavi regime used to lend money to some foreign countries. Despite this, one cannot find a single provision in the law to ensure that foreign investments were accompanied by the actual transfer of technology to Iran. The effective contribution of multinational corporations to technology transfer requires more than the mere transfer of capital goods and software to the host countries. Their contribution should lead to genuine assimilation of the technology by recipient enterprises and should help to strengthen indigenous technological capability.

The foreign investment law of Iran did not even mention licensing agreements which are usually the contractual vehicles for the transfer of technology to local entrepreneurs.\textsuperscript{26} In a considerable number of cases, the foreign investments were connected with licensing agreements. While the Iranian firms invested considerable amount of capital, the contribution of foreign enterprises was merely the capitalization of license rights. As will be shown, it was through such unregulated licensing

\textsuperscript{24} Compare to other developing countries, since Iran had oil revenues, its priority was less the attraction of foreign investment than the transfer of appropriated technology to the countries.

\textsuperscript{25} The license application for the importation of capital required only information on the number of foreign technicians to be employed, the proposed training of Iranian personnel, royalties and technical fees. See Noshirvani v., & Bildner R., Direct Foreign Investment in the Non-Oil Sectors of the Iranian Economy, Iranian. Stud., 1973, pp. 66-109, p. 73.

agreements that multinational corporations imposed contractual clauses to, among other things, control the firm.

However, despite these ominous features of foreign investments, the Iranian law did not recognise the need for the control and prevention of the potentially negative aspects of the activities of multinational corporations - an important and long standing concern of developed and developing countries alike as well as of international economic organizations. The situation was aggravated by the fact that Iran had no laws for the protection of competition and elimination of restrictive agreements and arrangements. The multinational corporations in Iran did not make a significant contribution to the process of industrialisation of the country. On the contrary, they created barriers to the entry of indigenous firms into domestic and international markets.

(b) Joint Ventures and the Transfer of Technology to Iran

It can be said that joint-venture companies are excellent vehicles for the acquisition of foreign technology. Because of the equity participation in the project by the foreign partners who have a stake in the venture, there are enough incentives and commitment for the joint ventures to be managed and operated efficiently. The significant role that


an appropriate collaboration between foreign technology holders and local recipients can play in the transfer of technology process cannot be disputed. However, since the Iranian partners contributed little to the management and control of the joint ventures before 1979, and in many cases the partnership was only in name, the appropriateness of the joint-ventures as vehicles for the transfer of technology to the country can be challenged. Foreign partners in joint-ventures firms in Iran committed negligible financial capital but, in practice, they controlled the ventures directly or through restrictive contractual clauses.

On the basis of a study of joint-venture enterprises in Iran, Rafii maintained that firms with more than 24% foreign equity were almost entirely controlled by foreign shareholders. Bildner, who also studied joint-ventures operating in Iran, revealed that the top management and technical positions were staffed mostly by expatriates and adequate training programs for local employees were not provided. Alizadeh, in her in-depth examination of the Iranian automotive industry, shows that a majority of the shares of the industry was owned by local investors but multinational corporations despite their relatively limited shareholding obstructed the adaptation and technological innovation of the industry by imposing a variety of restrictive business practices. Finally, another study of thirteen Iranian joint-ventures in nine different groups disclosed that they had not established any significant linkages with the domestic economy except for the local packaging industry. The above studies clearly show that being majority shareholders does not necessarily mean that Iranians would have control of joint ventures with foreign partners. As will be considered in


31 Bildner, R., *Strategies and Effects of Multinational Corporations in Iran and Yugoslavia*, Yale University, 1973, Chapter 6, cited in Noshirvani and Bildner, op. cit., note 25, p. 90. For Instance, 13 years after the establishment of a joint-venture firm, not a single top management and technical position was occupied by an Iranian. Ibid. pp. 90-93.

32 Alizadeh, op. cit., note 21, p. 322. For instance, all parts manufactured by local firms in Iran had to be confirmed by the foreign shareholders. Most of those locally manufactured parts were rejected under pretext of being non-standard. Ibid.

33 Daftari and Borghey, op. cit., note 16.
the last part of this chapter, this conclusion would challenge the current interpretations by Iranian jurists of Principle 81 of the new Constitution of Iran.

(c) **Monopolisation of Iran’s Market**

Soon after the 1979 revolution, a group of Iranian researchers examined 108 major licensing agreements concluded between multinational corporations and Iranian firms.\(^{34}\) This path-breaking study revealed the depth of the influence of multinational corporations in Iran. It was disclosed for the first time that multinational corporations imposed 27 types of restrictive business practices to limit the use of their technology by Iranian licensees.\(^{35}\)

A closer examination of the licensing agreements reveals that, almost all multinational corporations required that the Iranian licensee should not patent any improvement or innovations of the technology. Such improvements or innovations were regarded as the property of the licensor or, in some cases, should be licensed only to the licensor. In a considerable number of cases the licensee was barred from adding to its manufacturing capacity through contractual clauses such as non-competition, territorial restraint, tying, field of use, non-use of competitive technology, and export clauses.

The above restrictions directly or indirectly limited the use of acquired technology in a broad sense, i.e., in production, marketing, research and development, etc. Thus, while it enabled effective market control by the licensor, it kept local technological content to a low level. Indeed, the low utilisation of the capacity of the pharmaceutical industries in Iran can be attributed in part to those contractual

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limitations imposed by licensor companies. The restrictive clauses also had the effect of perpetuating the dependence of the Iranian licensees on the multinational corporations; causing excessive delays in the use and non-optimal use when the technology is employed; and overpricing owing to the preclusion of domestic firms from the most rapidly growing sectors of the economy.

Accordingly, having an encouraging foreign investment law does not necessarily lead to the transfer and development of foreign technology. There is no doubt that the strategy of multinational corporations in commercialising their technological assets is to maximise their technological advantages in international markets but it leads to suppressing any material transfer of technology even within their affiliates. It is the well defined policy of the host countries that devise appropriate laws and regulations to concede multinational corporations’ preferences to some degree so long as technology is transferred on terms which benefit the country.

Unfortunately, Iran did not have sufficient wisdom, in the past, to secure a better return from the foreign investors. It has been accepted that while such factors as the investment law, the patent law and tax holidays encouraged multinational corporations to invest in Iran, the lack of a clear and sound technological policy of the

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36 Salehkhou, op. cit., note 20, p. 51. Rahnema, a former senior analyst in the Industrial Management Institute of Iran, has summarised the effects of transnational corporations licensing agreements as follows:

1. "Local production of the Iranian firm was limited to the manufacture of a set of less-sophisticated components of the finished product and was heavily reliant on the continuous import of the major CKD components and materials;
2. The supplier of technology (the licensor) did not commit itself to give the technical assistance, training, and research and development needed for increasing the share of local production and adding to the local content; and
3. Conversely, the supplier of technology imposed a variety of restrictions to prevent the Iranian firm from adding to its technical capabilities, reducing the items in the imported CKD pack list, and consequently lowering the increasing costs of imports." Rahnema, op. cit., note 15, p. 305.

37 Nowshirvani and Blinder, op. cit., note 25, p. 89.

government and the absence of an efficient legal framework for its implementation made such investments have insignificant impact on the transfer of technology to Iran.

(d) Foreign Investment after the Revolution

The unsatisfactory economic and industrial development of Iran is alleged to have been the work of some foreign countries and multinational corporations which were said to have interfered in the economic and political life of the country. The collapse of the Pahlavi dictatorship and the establishment of an Islamic Republic meant an end to political incursion by foreign countries. Provisions in the new Constitution require the government to adopt national policies, enact laws and establish institutions to prevent foreign companies from dominating Iranian economy.39

II. The New Constitution and Foreign Companies’ Activities in Iran

Principle 81 of the new Constitution is very drastic in its condemnation of foreign participation in Iranian economy. So much so that various interpretations are being given to Principle 81 in order to justify and encourage the flow of foreign investments into the country. According to Principle 81, the granting of concessions:

39 The Constitution, Principle 43 (8).
"to foreigners for the formation of companies or institutions dealing with commerce, industry, agriculture, services or mineral extraction is absolutely forbidden."

(a) First Interpretation

Serious questions were levied at Principle 81 when the first post revolutionary government took office and faced with the practical application of the principle. Several contracts with foreign companies for the supply of spare parts, technical assistance and experts were due to be signed by government ministries when questions were raised as to the legality of the contracts under Principle 81. Although the Registration of Companies Act authorised the registration of established foreign companies, the Iranian Registrar of Companies refused to register any foreign company on the grounds that it was unconstitutional.

The government sought an interpretation of Principle 81 from the Guardian Council. This Council is responsible under the Constitution for giving the authoritative interpretation of constitutional provisions. The Council's response to Principle 81 was as follows:

40 The Constitution, Principle 81. The Constitution also provides that, "any form of agreement resulting in foreign control over the natural resources, economy, army, or culture of the country, as well as other aspects of the national life, is forbidden." Principle 171, Ibid.

41 The Registration of Companies Act, 1931, Article 3.

42 The Government letter No. 83240 dated 1981, Iranian Official Gazette, 1991, No. 10625. It should be recalled that under the constitutional arrangements of the 1979 Iranian Constitution, the Council of Guardians is vested with the authority to interpret the Constitutional Law of Iran as well as veto any legislation which does not conform to Islamic law. See The Iranian Constitutional Law, supra, Chapter One, note 56, Principles 94 and 98.

43 The Constitution, Principle 98.
foreign companies which have concluded contracts with government organs can, for their legal affairs and commercial activities in the framework of the concluded contracts, in conformity with the article 3 set of the law of registration of companies, register their branches in Iran and this [registration] has no discord with the Principle 81 of the Constitutional law.44

This interpretation makes the conclusion of a contract with the government or a government agency a precondition for the registration of a foreign company in Iran. It clears the way for the government and government agencies to be able to enter into contracts with foreign companies.

(b) Second Interpretation

Another interpretation of the Principle 81 suggests that a "concession" under principle 81 may be avoided by restricting a foreign company’s share in a joint-venture to 49% or lower and the foreign company does not control the joint-venture. In other words, a foreign company owning more than 50% shares of an Iranian company, and is thus able to control the company, is disqualified from registration under Principle 81, because that would amount to a grant of a "concession" and thus unconstitutional under Principle 81.45


45 This interpretation was attributed to the Organisation for Investment and Economic Technical Assistance of Iran (OIETA) which required that: "Foreign direct investment in Iran is allowed only through participation of foreign persons in the equity capital of existing and new Iranian companies. Maximum foreign participation in the joint companies is 49%, however, this proportion will be determined on merits of each project." Emam, F., The Law of Foreign Investment in Iran, Teheran, 1994, p. 98. (in Persian)
(c) Third Interpretation

The third interpretation of Principle 81 emerged when the government after the Iraq war began to formulate plans to reconstruct the country's war ravaged economy based on a policy of a free competitive market and expansion of the private sector. This entailed large investments both domestic and foreign which meant a fresh interpretation of Principle 81 of the Constitution. It was argued that a foreign investment *per se* in the country is not a "concession" within the meaning of Principle 81 and was, therefore, not unconstitutional.\(^\text{46}\) According to this approach, it was further argued that the actual amount of foreign investment bore no relevance to the question of exclusion of Principle 81. The proportion of foreign holding was regarded as not having any legal basis and was, therefore, not to be taken into account in a determination of constitutionality.\(^\text{47}\) Until there is a submission to the Guardian Council for a ruling, there will be uncertainty as to whether or not the Guardian Council will accept this interpretation.

(d) Analysis of the Interpretations

The correct interpretation of Principle 81 remains in doubt to date, more than 15 years after the introduction of the new Constitution. The registration of a foreign company conditional upon securing a contract with the government has no statutory support.\(^\text{48}\) It is also not supported by Islamic Common Law. In fact, the intention of the

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\(^\text{46}\) This interpretation is attributed to some Ministers and to the Iran Chamber of Commerce, Industries and Mines. For instances see the view of Ministry of Industry, Mr. Neamatzadeh, regarding the foreign investment in Iran, *Keyhan Havai*, August 19, 1992, p. 19; and views of Mr Khamoshi, the head of the Iran Chamber of Commerce, published in *Keyhan*, Teheran, No. 14903, p. 3, 1993.

\(^\text{47}\) *Keyhan Havai*, Ibid.

\(^\text{48}\) See for instance, *Amendment Act for Improvement of Regulation of Registration of Companies*, September 1961, Art. 1, which only requires the registration of foreign companies.
Parliament, as reflected in the final round of debates leading to the adoption of the new Constitution, was not to exclude foreign companies from being registered in Iran. This was in direct contrast to the thinking behind the adoption of Principle 81. There is no evidence of any express view or specific discussion in regard to preventing foreign companies from entering the country. The questions asked in Parliament centred around the concepts of concession and associated monopoly characteristics rather than a policy to avoid registration of foreign companies.49

What Principle 81 objects to is the establishment of a foreign company following an exclusive grant extended by the government to foreign nationals for the extraction of oil and minerals, production and distribution of a particular product such as tobacco, etc. Many such grants had been made in the past hundred years of the history of Iran and they were detested by the Iranians who now intensified their efforts to outlaw such concessions.50 Therefore, one should distinguish between "establishment" of a foreign company to exploit a monopoly and mere "registration" of a company in the ordinary course of its business. The registration of a company that already has been established abroad and is engaged in commercial and industrial activities cannot be characterised as a "concession" with its monopolistic connotations. A foreign company transacting a business in Iran, like other local and foreign companies already registered in Iran, should be allowed to have a legal personality and do business within the legal framework of the country. This is not only an essential minimum legal requirement in every country but also mirrors contemporary economic and commercial realities and should be encouraged.

The Guardian Council's exclusion of foreign companies under contract with the government from the provisions of Principle 81 is evidence that there is no blanket prohibition against registration of foreign companies ipso facto. The overriding concern is the fear of uncontrolled activities of foreign companies and the fact that a

49 Parliamentary Debates on Final Examination of the Constitutional Law, vol. 3, Teheran. (in Persian)

foreign company is under a contract with the government means that there is adequate supervision by the government to keep such a company out of the ambit of Principle 81. One may then ask if such an argument can be extended to other foreign companies which are potentially not harmful to the economic interests of Iran. Principle 81 is directed at companies that are engaged under conditions such as monopoly rights given by "concessions" as the term has been understood in the era of foreign intrigue and the despotic Shahs. It can, therefore, be submitted that the single important prohibition under Principle 81 of the Constitution is the granting of "concession" to a foreign enterprise as the meaning of the term "concession" is understood in Iran and that is giving monopoly rights to a foreign company.

Any other interpretation of Principle 81, if not defective, would be highly problematic to government planners and policy makers. Principle 81 should be looked at in the context of all the provisions in the Constitution which prohibits the government from becoming the absolute employer in the country. The Constitution recognises the private sector as an important component of the economic system of the country. The Guardian Council’s narrow interpretation of Principle 81 while providing some limited scope for foreign companies to operate in Iran suggests increasing government interventions in the economy. In many areas of the economy, the Iranian private sector requires foreign investment of capital and technology and the Guardian Council’s interpretation would result inevitably in the weakening of the Iranian private sector which might seek ways to escape abroad.

The approach to direct foreign investment in Iran has swung from one extreme to another, from the disappointing indifferent attitude of the Pahlavi regime towards the activities of multinational corporations in the country and the near paranoidal attitude in the early years of the post revolutionary period resulting in state over-interventionism. Since then the government’s attitude has moderated as can be inferred from the Parliamentary debates. The crux of the issue of foreign enterprises is rightly

51 The Constitution, Principle 43 (2), see also supra, Chapter One text accompanying note 68.
52 Ibid, Principle 44.
the prohibition of "concessions" because of the anti-competitive and monopolistic behaviour of foreign and even domestic enterprises\(^53\): not the rooting out of foreign companies from investing in the country.

As far as the issue of transfer of technology is concerned, those suspicious of the conduct of foreign companies argue that foreign companies did not effectively transfer their valuable technology to Iran in the past and are not likely to do so in the future. They also believe that foreign technologies are inappropriate for a developing country like Iran. All research and development efforts leading to those technologies are made to satisfy the needs and problems of the societies from which the foreign companies originate and not those of the developing countries. Indiscriminate use of foreign technologies keep Iran in a condition of permanent technological dependence. The proponents of this school of thought in Iran, thus believe that for breaking out the permanent technological dependence of the country, the transfer of foreign technology to the country should be selective and instead local research and development centres should be established and improved in the country.\(^54\)

These arguments certainly have some merits. The problem with a strict interpretation of Principle 81 is to, if not prevent, limit severely the activities of foreign companies in the country which would then be deprived of foreign investments in capital funds and technology needed to achieve Iran's economic and industrial goals. It is a proposition of this thesis that Principle 81 should be applied only to concessions in the narrower meaning of the word as synonymous with a monopoly and that it is perfectly constitutional to allow foreign companies generally to register and operate in Iran but that, to do so, Iran must legislate for screening transfer of technology agreements and controlling restrictive agreements. As will be suggested

\(^{53}\) A closer look at the final debates for the enactment of the Principle 81 reveals that some representatives still insisted on the inclusion of the prohibition of concessions for domestic enterprises as well; Iran Chamber of Commerce, What is the Place of Participation and Foreign Investment under Iranian Laws, Letter of Iranian Chamber of Commerce, No. 9, 1993, pp. 5-8, p. 6. (in Persian)

\(^{54}\) Razzaghi, supra, Chapter One, note 47, pp. 78-81; see also Foreign Investments Do not Play a Favourable Role in Economy of Non-Industrial Countries, In Keyhan Havai, Numbers 1006, 1007, November 1992.
later, what is required is the establishment of a strong legal and institutional framework to deal with the entire aspects of transfer and development of technology, including questions of industrial property rights and protection of competition. The final round of Parliamentary debates on the new Constitution support the submissions of the thesis.

(i) Interpretation or Expediency?

Fortunately, the validity of the Guardian Council’s interpretation of Principle 81 is in question. To prevent abuse of the process of interpretation by the Guardian Council, the Constitution provides that:

The authority of the interpretation of the Constitution is vested with the Guardian Council, which is to be done with the consent of three fourth of its members.

The Guardian Council should meet in special session to respond to a request for interpretation of the Constitution and the support of three-fourths of all its members will be required for a valid interpretation. The ordinary meaning of the words will be used in the interpretation which will also take into account the objectives of the legislator and the practical needs of the society.

Because of the failure of the Guardian Council to meet in special session and put the matter to vote as required by the Constitution and as evidenced in the text of the answer to the government request to interpret Principle 81, the interpretation given by the Council is not legally binding and gives the government the freedom to

55 Parliamentary Debates, op. cit, note 52.

56 The Constitution, Principle 98.

57 In this regard see also Emam, F., op. cit., note 48, p. 97.
consider further the application of Principle 81. In passing it may be noted that the Guardian Council has not determined whether or not the foreign company is allowed to conduct business with Iranian private companies after the registration of the company on the ground that the foreign company is under a contract with the government. Apparently, there is nothing preventing the company from operating in Iran. Thus, the first interpretation which was regarded as expedient at that time by the Guardian Council, can be discounted as having no legal basis.

(ii) Control of Foreign Companies Activities Through Share Limitation

The second interpretation has attached importance to the stock ownership of foreign nationals of companies registered in Iran. Those who support it have the same objective as the first interpretation, namely the control of activities of foreign companies in the country. While the first interpretation intends to control foreign companies through their contracts with the government, the second believes in control through the requirement that majority shares should be owned by Iranian nationals for a company to be registered in the country. This school of thought accepts that multinational corporations can play a useful role in the transfer of technology to Iran provided they transfer their technology through indigenous-controlled firms. Two points should be made regarding the arguments of this school of thought:

Firstly, a limit on foreign ownership is not inferrable from the text of Principle 81 so long as no monopoly is granted and applicable rules of law are observed. It is a matter for government policy makers to set ceilings, if any, on foreign investments in Iran. Secondly, it is believed that, in the absence of an appropriate legal and institutional framework to cover patent, competition, foreign investment and transfer of technology, the second interpretation would be ineffective as well. Majority share holders are not necessarily those who control the company. It has been shown that, in practice, Iranian joint-ventures used to be controlled by minority foreign
shareholders through mechanisms such as the restrictive business practices. One should bear in mind that the ownership of a company's shares is not necessarily synonymous with control of the company. In the Algeria Accord accepted by the US and Iran, ownership of shares as a criterion was rejected for those companies which were subject to the control of government.

(iv) Control of the Foreign Companies Through Market Forces

The third interpretation of the Principle 81 leaves the control of activities of foreign companies in the country mainly to the market forces. From the legal point of view, the proponents of this interpretation argue that their approach is based on the law of investment of Iran. The law and its regulations have neither conditioned the foreign investments to the conclusion of a contract with the government, nor restricted the foreign investments to a minority ownership of shares in an Iranian company. On the contrary, the regulations of the foreign investment law give foreign investors the freedom to choose between disposing their capital in the country directly and via partnership with Iranian nationals.

As far as Principle 81 is concerned, the proponents of the third interpretation maintain that unlimited foreign investment in the country is not unconstitutional. For this, they base their view on two grounds: firstly, the law of investment has not been

58 Rafii in his study of 35 joint ventures in the manufacturing sector in Iran in 1977 disclosed that the foreign firms without having majority ownership exercised considerable influence over joint-venture operations through control of key managerial functions or by imposing RBPs in contractual agreements, principally licence and technical assistance agreements, op. cit., note 30; and Rafii F., Joint Ventures and the Transfer of Technology: The Case of Iran, in Stobaugh and Wells (eds.), Technology Crossing Boards, Harvard and Business School Press, 1984, pp. 203-243, at 213.

59 Nasiry M., Recognition of Companies' Nationality Based on the Algeria Accord, Research Pamphlet, No. 92, Teheran, p. 2 (in Persian); see also Emam, op. cit., note 48, p. 102.

repealed as non-Islamic by the Guardian Council;\textsuperscript{61} secondly, as was noted earlier, the Council has not given a formal interpretation of Principle 81 yet. The situation is similar to the question of interpretation of Principle 139 of the Constitution where the Council held that the current laws may continue to be followed as long as the Council has not deemed otherwise.\textsuperscript{62} As a result, the present law on the attraction and protection of foreign investments which has not been rejected by the Council is still in force and there is no limit placed on foreign investment by the Iranian constitution.

From the economic point of view, the proponents of the above interpretation of Principle 81 insist that the population of the country is increasing rapidly and oil revenues will not be adequate to finance needed infrastructures and all the capital needs for development of the country.\textsuperscript{63} If Iran limits foreign share holdings to 49\%, the local private sector must find the balance 50\% which it does not have. This will be the case particularly for those projects which are capital intensive. This school of thought believes that the creation of a sound and predictable investment climate which assures a reasonable return on investments and adequate protection of industrial property rights provide the best opportunities for the transfer of technology to the country.\textsuperscript{64}

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\textsuperscript{61} According to the Principle four of the Constitution, all civil, penal, financial, economic, administrative, educational, military, political and other laws and regulations shall be based on the Islamic principles. The Council of Guardian, thus had to determine the pre revolution laws that were non-Islamic. The foreign investment and patents law are among those laws that have not been stated as non-Islamic. For the constitutional relationship between the Iranian Parliament and the Guardian Council see supra, note 43.

\textsuperscript{62} "With regard that the current laws are not enforceable when they are against the Constitutional law, in the events that the comprisal of any Principles of the Constitution to the current laws requires the interpretation of the Guardian Council, as long as the Guardian Council has not given its interpretation's view, those laws are enforced."\textit{Collection of Council of Guardian's Views}, vol. 2, p. 907, Teheran. (in Persian).

\textsuperscript{63} See for instance the interview with Mr Mahloogi, the Mines and Metals Minister, \textit{Keyhan Havai}, September 16 1992, p. 14.

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The third interpretation of Principle 81 has raised fewer legal problems compared to the other two interpretations because it meant far less control over foreign investments which would generally be accompanied by technology unavailable in the country. That interpretation has not been seriously challenged and, in practice, has worked well except in matters of transfer of technology.\(^{65}\) This interpretation might continue to be accepted provided, however, that it is shown that foreign investment activities in the country do not violate other Principles of the Constitution.\(^{66}\) Nevertheless, the third approach to foreign investment in Iran has its own weaknesses. Chief among them is the absence of rules against distortion of competition and abuses of privileged positions in the market and rules addressing transfer of technology issues. One of the points constantly articulated by the government authorities is the acquisition of modern technology through foreign investment but few measures were taken to make that happen.\(^{67}\)

The problem has been the opening up of the markets without having sound and responsive national and international legal institutions to protect public interests. Iran, after seven decades of spending vast sums of money on foreign goods and services, has not a satisfactory local industrial and technological base. Iran may have lost opportunities to develop local skills and technological capabilities because of the unregulated activities of foreign investors especially during the Pahlavi regime. Continued neglect to introduce the necessary legal and institutional reforms will not improve the situation under the current regime as well.\(^{68}\)

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\(^{65}\) One recent example for its acceptance is the conclusion of an agreement between the National Iranian Oil Company (NIOC) and French company, TOTAL, in July, 1995. According to the agreement, TOTAL will make all necessary investment for the extraction of oil and gas from Siri Island. *International Ettela’at*, London, No. 269, Friday July 21, 1995, p. 10.

\(^{66}\) See supra, notes 40 and 41.


\(^{68}\) Dr Mashaiekh, who is a senior advisor of Iran’s Plan and Budget Organisation, also criticises that while the physical aspects of development have been excessively pursued by the Government, there is no sufficient appraisal and monitoring of development projects and transfer of technology agreements in the country. Ibid. For types, merits and demerits of government intervention in the process of transfer of technology, see McFetridge D. G., *Government Intervention in*
At the time of writing of this thesis a draft of a new foreign investment law of Iran is in its first reading in the Parliament. The draft has clearly adopted the third interpretation of Principle 81 of the Constitution. Foreign ownership of the majority share in a company registered in Iran has been made expressly lawful.\textsuperscript{69} Other incentives and guarantees have also been introduced and the proposed changes are still vague and insufficient. The draft has provided that the investment "should not involve monopolistic rights and [should not involve] granting privileges to foreign partners."\textsuperscript{70} It introduces important and complex concepts into the Iranian legal system without a serious attempt to define them. Worse still, the draft law, like the law currently in force, makes no provision to deal with technology licensing agreements and restrictive business practices.

\textsuperscript{69} The draft of new Iranian Investment Law, Article 8 (a) remark.

\textsuperscript{70} Ibid, Art. 5(d).
III. Conclusion

The weakness of the existing legal framework within which the flow of foreign investments take place in Iran is the absence of provisions aimed at ensuring maximum utilization and better absorption of the imported technology. The law does not specify precisely the conditions under which multinational corporations should operate and what they should achieve. The main concern of the current law is the net movement of funds out of Iran rather than the related technology transfer into the country. The need for the control and prevention of the potentially negative aspects of multinational corporations activities has not been recognised. Technology licensing agreements, which were frequently used in ventures with local partners, were left unregulated but there is no antitrust legislation to act as a compensating force. The results have been disappointing. The new Constitution, promulgated after the revolution, has introduced new elements which are, however, being interpreted in a way to permit foreign investments to continue. Other laws have been untouched and transfer of technology issues continue to be neglected despite a deep awareness of the lack of progress in industrial development of the country.
Chapter Nine

IRANIAN PATENT ACT: A NEGATIVE INSTRUMENT FOR TECHNOLOGY TRANSFER AND PROMOTION AND ATTRACTION OF INVESTMENT

I. Introduction

(a) The Historical Development of the Iranian Patent System

As was described in Chapter One of the thesis, Iran gained astonishing wealth and enjoyed relatively stable political and economic conditions in the thirties. Crude oil was being extracted in the country, the first Iranian Parliament was established, and laws and regulations for administration of the country in the modern sense were being passed. The growing importance of Iran’s rich natural resources, particularly crude oil, its foreign currency earnings and its forward looking industrial policy and eagerness to acquire foreign technology had made Iran a target for foreign investors and suppliers of goods and services. However, at that time, Iran did not protect any intellectual property rights either through its national laws or by accession to international conventions.

It was in such circumstances that foreign countries were eager to conclude bilateral industrial property rights protection agreements with Iran to facilitate the importation of their manufactured goods in the country. In 1928, the first bilateral agreement between Germany and Iran to protect patents, trademarks, trade names, and
copyrights of their respective nationals, consisting of two provisions, was signed and approved by the Iranian Parliament. \(^1\) Two years later, in 1931, the first Iranian patent and trademarks law, based largely on the French patent law of 1844, was prepared and hastily passed by the Iranian Parliament without any serious deliberations. \(^2\) In the same year, regulations under the law were enacted to enforce it. \(^3\)

In the ensuing years, foreign political pressure on Iran to become a member of the Paris Convention gathered momentum. However, this did not materialise until the democratic government of the late Dr Mosadeq, who was against any surrender of the sovereignty of the country, collapsed following the coup d'etat of 1951. Subsequently, a law for attraction of foreign investment was enacted in 1955 \(^4\) and in order to facilitate the Iranian membership of the Paris Convention, in 1958, the patent regulations were replaced by new regulations issued by the Ministry of Justice. The regulations comprised 67 provisions. \(^5\) Iran became party to the Paris Convention on 16th December, 1959, and the latest Act of the Convention to which Iran is a party is the Lisbon amendment of January 4, 1962. \(^6\) A separate law in 1961 makes the Office of Registration Organization of Deeds and Industrial Property responsible for the registration of trademarks, inventions, commercial names and industrial designs. \(^7\)

\(^1\) Code of Laws, Seventh vol. 1929, p. 316.


\(^3\) Regulations for Execution of Trademarks and Patents, 1931, Iranian Official Gazette, No. 12871-833.

\(^4\) See Chapter Eight.


\(^7\) Act for Improvement of Regulation of Registration of Companies, September 1961, art. 1.
II. The Iranian Patent System and Transfer of Technology

According to the Iranian Patent Act of 1931, discovery or invention of a novel industrial product and discovery of new means, or application of existing means in a new manner, for obtaining a novel industrial or agricultural result or product are registrable in Iran. The discoveries and inventions to be qualified for registration should be absolutely novel. The requirement of non-obvious (or inventive step) has not been recognised by the law. Except for financial plans, formulae and pharmaceutical compositions and those inventions that disturb public order or are contrary to morals or against public health, virtually all inventions, whether products or processes are patentable in the country.

Once a patent is granted under the Iranian Patent Act the patentee and his legal successors are legally empowered for up to 20 years in the territory of Iran to manufacture, sell, assign, license or import the patented invention. As regards the exclusive right of importation, although it has not been mentioned expressly by the law itself, the Regulation of Patent Act in several articles, particularly in Article 64, has recognised such a right specifically for the patent holder. This may be explained in the context of Iranian membership of the Paris Convention which has, as cited

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8 Iranian patent law, Articles 26 and 27.

9 The Regulations of Iranian patent law, Article 26.

10 An invention, although novel, may not be patentable if it is obviously deducible from the prior art by an ordinary "person skilled in the art" of the relevant technology. It has been argued that theoretically, unlimited compound variations from the existing materials might be produced and claim patent for each new combination. In the same way, the requirement of non-obviousness, like novelty, is intended to limits patent monopolies to those inventions that in fact serve to advance the state of the useful art.

11 Iranian patent law, Articles 27 and 28.

12 Iranian patent law, Articles 33 and 39; Regulations of the patent law, Articles 40 and 43. According to Article 39 of the law, the patent holder may assign to another person the title to, or the right of use of the subject of invention, totally or in part, and in any manner.
above, recognised the right of importation. The Regulation of Patent Act was passed in 1958 - the year that Iran applied to become a party to the Paris Convention - to emphasise the exclusiveness of the right of importation for patent holders as well.

The patent holder has the right to take legal action against any person exploiting the invention without his agreement. If infringement is discovered and the dispute is not resolved amicably, the patentee and the alleged infringer may agree to arbitrate the dispute. Alternatively, an action may be brought in certain courts in Iran. The civil remedies available under the Iranian Patent Act against an alleged patent infringer include an injunction to restrain further infringement and damages in respect of the infringement.

Besides the civil remedies, the infringement of a patented technology in Iran also is regarded as a criminal offence. Under Article 249 of the annulled General Punishment Law, every infringement on registered patents, either by manufacturing of the product or by application of the subject matter of patents, was regarded as fraud and the infringer would be imprisoned for a period between 3 to 6 months or fined to pay 100000 Toman (Iranian currency unit) or both. After the revolution of 1979, pursuant to the policy of the islamisation of Iranian laws, the General Punishment Law was replaced by the Islamic punishment law. The law, which is now in force, excludes patent infringement as a punishable offence.

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13 The Regulations of Iranian patent law, Article 6.
14 The Regulations of the Iranian patent law, Article, 64 and the Civil Procedure Law, Article 778.
15 The Regulations of Iranian patent law, Ibid.
16 Islamic Punishment Law of Iran, Iranian Official Gazette, No. 10972, 1982. It is important to have in mind that although the current Iranian criminal code does not refer directly and specifically to the infringement of patented inventions, it takes care of trade secrets related to inventions. Article 125 of the current criminal code reads as follows: Imprisonment of one year to three years will be applied to person who on the basis of his/her professional and trustworthiness status is informed of secrets of an invention and the way that invention is carried out, and use it against public interests or misuse it in any manner.
In Iran, the burden is initially on the patent holder to prove that infringement of his rights over the patented product or process has occurred. The patent law, however, has provided that patent holders in the country may be granted interim injunction for the collection of evidence. The defendant, on the other hand, has the burden of proving the invalidity of the patented invention. A defendant in patent infringement proceedings in Iran, generally has two major defences. The first is invalidity. The Iranian court may revoke a patent on the basis that it had not met the requirements of patentability. To do so, the accused infringer has to prove one of the following issues:

- the invention is not novel;
- subject matter of the patent comprises financial plans, or alleges disturbing public order, or acts contrary to morals or against public health;
- the invention covers pure scientific methods and cannot be worked particularly in industry or agriculture;
- five years have elapsed from the issuance of the patent and the technology has not been actually worked in the country.

The second basic defense of an accused infringer is a claim of non-infringement: that is to say, his acts fall outside the scope of the patent rights. Given that the patentee has the burden of proving infringement, this defense is usually preferred. While in most countries an infringer can avoid liability for infringement by establishing that the patentee has misused his rights through tying; prohibiting the production or sale of competing goods; conditioning the grant of a license to use one

17 The Regulations of Iranian patent law, Art. 64.
18 Iranian patent law, Art. 37(1), (2).
19 Ibid, Articles 28 and 37.
20 In addition to the above defences, another defence has been recognized in the U.S and Western countries that usually called unclean hands. This is to prove that the patentee’s licences contain restrictive clauses exceeding the legitimate patent rights, or in violation of competition or antitrust laws. Chisum, Patents, sections 19.04. 1989. This defense is also available in the countries with the "built-in safeguards" patent law.
patent on the acceptance of a second license (mandatory package licensing); requiring licensees to pay royalties after the expiration of the patent; charging different royalties to licensees in different parts of the country,\textsuperscript{21} in Iran such a defence for an alleged infringer of patent rights is not available. One cannot find even one single limitation relating to the use of patent property rights under the Iranian Patent Act. Neither is there an anti-monopoly law to invalidate restrictive business practices in licensing agreements. One can only rely on Iranian civil law which is inadequate in this regard as well.

The Iranian civil law clearly has adopted the principle of freedom of contract. According to Article 10 of the Civil Code, private contracts shall be binding on those who have signed them, providing they are not contrary to the explicit provisions of a law. Similar situation exists in terms of conditional clauses of a contract since they are part of the contract though auxiliary to the main contract.\textsuperscript{22} However, although the law has introduced conditions for validity of a contract\textsuperscript{23} in terms of conditions of effectiveness and validity of conditional clauses the civil law is generally silent on the matter. Iranian legal authors and courts also have paid little attention to this important issue.\textsuperscript{24} Instead, the civil law has merely introduced those conditions that are not acceptable.\textsuperscript{25} Accordingly, the conditions for validity of conditional clauses may be perceived from those Articles as follows:

- conditions should be possible to fulfil;
- conditions should be useful and profitable;
- conditions should be legal;
- conditions should not be contrary to the requirements of a contract;

\textsuperscript{21} Chisum, Ibid., sections 19.04.


\textsuperscript{23} Iranian Civil Law, Art. 190.

\textsuperscript{24} Katouzian, 1989, op. cit., note 22, p. 162.

\textsuperscript{25} Iranian Civil Law, Articles 232, 233.
- conditions should be fully disclosed otherwise lack of knowledge will be a good defence.

There is little doubt that most restrictive clauses in technology licensing agreements that have been accepted by the parties would satisfy those conditions. Because the restrictive clauses in licensing agreements, whether arising out of patent rights or not, are valid in Iranian law, they have advantages for the licensor provided the restrictive clauses are not against moral and public order and are not against the essence of licensing contract. As far as the issue of defence is concerned, the defendant under the Iranian laws cannot avoid liability for infringement by establishing that the patentee has misused his rights. The Iranian civil law would sustain the validity of those mutually accepted agreements and conditions which are not against the patent law.

Similar to other developing countries, a few of foreign patented inventions have been actually utilised and worked in Iran. Most of the locally owned patents in Iran remain unexploited either because they are not suitable without further development or because of lack of interest among investors. Equally unacceptable is the insufficient disclosure of patent specifications which for the most part consist of general descriptions of the inventions and are not capable of being used without complementary technical knowledge. 26

It is interesting to note that, since the occurrence of the 1979 revolution in Iran the number of foreign patents in the country has decreased significantly. 27 Putting aside the general political and social changes created by the revolution in the country, other reasons for such a decline may be attributed to:

26 See supra, Chapter Seven, note 15.

27 Based on the present writer’s calculations, during the period from 1963 to the revolution in 1979, a total of 16492 patents were granted in Iran, out of which 95% belonged to foreigners. As regards trademarks, between 1959 to 1979, from the aggregate of 42140 trademarks registered in the country, 71% belonged to foreigners and 29% to local firms or individuals.
- the tight control of the government, particularly in the first decade after the revolution, over imports and exports;
- the eight year war imposed by Iraq;
- the lower oil revenues of the country comparing to the period before the revolution; and
- the industrial policy of the government that prohibited patent and technology licensing agreements.

The industrial policy, among other things, required the outright purchase of technical know-how. This policy, however proved to be inappropriate, mainly because the suppliers of technical know-how had no firm commitment and stake in the business to be concerned about the successful outcome of the projects. In 1991, the ban on licensing agreements was lifted in line with the new economic policy of the government.

The number of local patents exceeded foreign patents for the first time in 1993. This can be attributed to the new management of the Iranian patent office. Fortunately, the new director is a lawyer himself and tried to implement the current law as best as possible in the interests of the country albeit within the scope of the law as it was enacted. In this regard, he refused to grant patents to pharmaceutical compounds although grants had been made previously despite provisions against such grants in the Iranian Patent Act. A case is now pending before Iranian Courts regarding the new attitude of the patent office to the protection of pharmaceutical compounds.

28 Interview in Teheran by the author with Mr. Hajrassoliha a high rank Director of the Ministry of Electrical Power, January 10, 1995. According to him, since the revolution up to 1991, on the basis of a guidelines issued by the Ministry of Industry, the transfer of technology projects had to be accomplished through the lump sum contracts and not contracts based on payment of royalties. Ibid.

29 Ibid.

30 See Chapter Eight, the second experience.

31 Iranian patent law, Art. 28(3).

32 For more details of this case see infra.
It is possible to enumerate other causes for the unsatisfactory situation in Iran. As far as the Iranian Patent Act and its Regulations are concerned, they suffer from some important and fundamental weaknesses which have discouraged investment, despite the fact that they are very liberal and allow patent holders considerable freedom in their contractual arrangements with licensees, subsidiaries and joint venture partners. The same weaknesses have prevented the development and real transfer of technology. One of the weaknesses is the issue of novelty prescribed by Iranian law.

(a) Absolute and Relative Novelty

In contrast with countries like the US., the UK., Germany and Japan that switched from the local novelty criterion to the universal one only recently\(^\text{33}\), Iran selected the universal novelty when its industries were hardly developed at all\(^\text{34}\) and Iran was not in a stage of scientific and technical development to take advantage of the modern criterion for patents. The Iranian Patent Act was enacted without consultations with the local entrepreneurs. At the time of enactment of the Iranian Patent Act of 1931, the majority of people in Iran were illiterate, lived in the countryside and were involved in agrarian activities.

Notwithstanding these facts and the immaturity of Iran’s industry, the Iranian Patent Act provides that, any invention or improvement of an existing invention shall

\(^{33}\) The United Kingdom adopted the universal novelty criterion in its Patent Act of 1977 based upon European Patent Convention Articles 52, 54. In Germany universal novelty was not required until the enactment of the patent law of 16 December 1980. Japan as an inspiring model of development for non-industrial countries until 1959 required a local standard of novelty. Still, however, in some countries legislation, the novelty is nullified where the invention is known by publication or public use on a local basis. This category is usually called "insular novelty" since patentability is affected only by acts which occur within the country. See for instance, patents law of Pakistan, New Zealand and Egypt. Baxter & J. Sinnott, World Patent Law and Practice, 1983.

\(^{34}\) An invention is new if it is not anticipated by prior art. Prior art shall consist of everything disclosed to the public, anywhere in the world, by publication in tangible form or, in the country by oral disclosure, by use or in any way, prior to the filing, or, where appropriate, priority date of the patent application claiming the invention. See 1 WIPO, Model Law for Developing Countries on Inventions. (Patents), WIPO publication No. 840(E) (1979), p. 19, sec. 113.
not be considered novel if, prior to the date of application, the descriptions and plans thereof have been printed, either in Iran or abroad, in writings or publications available to the public, or if it has been worked or utilised. In other words, a technology that is patented abroad and its priority period is exhausted cannot fulfil the universal requirements of novelty in Iran. This policy, *inter alia*, has two main disadvantages: it discouraged local innovation from gaining competitive advantage and offered no incentives for the transfer of technology to the country. These will be considered in the following sections.

(b) Absolute Novelty and Competition Policy

To control the anti-competitive abuses of powerful foreign technology holders, developing countries usually have either excluded them from their markets or, as was considered above, they have subjected them to pervasive regulation. It is believed that neither of these policies in the long term would be appropriate for development and acquisition of foreign technology. Instead, among other policies, an effective competition policy is needed to encourage technological innovations of new products and processes and flow of foreign technology to the country. An effective competitive policy is not just a matter of protecting price competition. An effective competition policy must encourage technological innovations of new products and processes which can make better use of economic resources. Towards this end, new potential rivals must be created and be encouraged to get involved in technological innovations and enter the market to compete with the established firms. In this regard, the role of the novelty criterion should not be underestimated.

Curiously enough, since almost all useful inventions are registered in industrialised countries, those inventions will lose their novelty, when their priority period has been exhausted, in countries which apply the universal novelty norm to the patent law.

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35 Iranian patent law, Article 37.
patent system. A patent in one country does not mean that the patented technology has been utilised in other countries as well. In fact, it is well founded that although a vast array of technologies have been published worldwide in the media, much of it has never been worked in developing countries. But, enterprises in developing countries are reluctant or unable to import technologies patented abroad and develop them further or adopt them to local conditions for the reason that they cannot secure proprietary rights by taking out local patents because of the universal novelty criterion. There is little, if any, incentives left for domestic firms to "import" those technologies and manufacture required goods locally.

There is genuine concern that without legal protection of innovations to an imported technology, rivals are free to copy and compete with the innovator firm without incurring any development costs of their own. This is particularly true for the small and medium seized enterprises that lack enough resources to maintain secrecy over their innovations until they are able to establish them in the market. As a consequence, entrepreneurs dare not invest in technological innovations. The universal novelty standard, thus, discourages the domestic innovation and adaptation of technologies which have not been introduced to the country even if the technologies are appropriate for the conditions in the developing country. Few domestic firms are encouraged to enter the market which becomes less competitive and prone to be dominated by one or two multinational corporations.

This leads to continued industrial backwardness which in turn encourages the multinationals to strengthen their grip on the economy of the country concerned which slips more and more into a heavily dependent state on foreign technology and the vicious circle is complete. It is submitted that the absolute universal novelty standard for patents excludes local firms from investing in the development and innovation of foreign technology to enable them to manufacture goods locally to compete in the

According to Patent Office of India, which also requires the universal novelty, only 2 or 3 per cent of Indian patents pass the search of novelty. See Tabassum Igbal, Indian Patent System and India's Economic-Technical Cooperation with other Developing Countries, in Indian Patent System and Paris Convention: Legal Perspectives, Sangal P. S and Singh K. (ed.), University of Delhi, 1987, p. 94.
domestic and foreign markets. In Iran, partly as a result of such a high standard of novelty, and at the same time the lack of any secondary type of patents for local inventions which many industrialising countries such as India, Brazil and Argentina have introduced in their domestic law, only a very few number of patented inventions belong to local individuals and firms and even much fewer utilisation has been made of foreign technologies.

(c) Technology Transfer and Absolute Novelty

An objective of the patent system is its potential as a vehicle for the transfer of foreign technology. Unfortunately, a patent grant based on the application of the absolute universal novelty criterion will not facilitate the movement of the technology of the patent into developing countries. This is because the patent holder or owner of technology, in the absence of a local patent system to enable him to secure a new patent in the recipient country, will not invest in the transfer of his skills, expertise and knowledge to produce the goods in the recipient country. There is every incentive for him to try to import the goods into the country instead. Besides a technology developed and patented in an industrialised country may have to be modified or adopted to suit the conditions in the recipient developing country because, for example, capital intensive and state-of-the-art technology may not be technically and economically feasible in the country. It is the importation of the advanced technology in toto without any adaptation to Iranian conditions that has made Iran so dependent massively on foreign inputs particularly technical assistance.\(^{37}\)

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\(^{37}\) One of the major problems of Iranian "large industries" is their fierce dependence on foreign technology, machineries, parts and raw materials. As to the foreign raw materials, the most dependence relates to miscellaneous industries with 53%, chemical, petroleum, coal, rubber and plastic industry with 43.1%, machineries, equipments, tools and metal industries with 32.7%. In terms of "small industries" the dependence on foreign raw materials is between 2 to 14 times lesser than the large industries. Razzaghi, supra, Chapter One, note 47, p. 80.
Japan is an inspiring model of development for developing countries. Until 1959, Japan required a local standard of novelty for the grant of local patents but, as it developed and reached her current stage of industrial development, she switched to an universal novelty standard as being more appropriate for her as member of the class of "industrialized" countries.\(^{38}\)

Today, information is disseminated very rapidly but, even then, the examining and recognition of the novelty is not as simple as it appears on paper. Moreover, since between 1,500,000 to 2,000,000 new patent documents are filed per annum worldwide\(^{39}\) and as technology advances rapidly, it becomes more onerous to invent something which is completely novel.\(^{40}\)

It has been argued that local patents granted on a lower standard of novelty could restrict the free flow of patented products inside the country and outside.\(^{41}\) Therefore, the universal novelty requirement has been taken as a defensive policy to reduce the number of foreign patents in developing countries.\(^{42}\) Given the side effects of foreign patents, this line of argument may justify the universal novelty criterion in developing countries. However, it cannot justify the objection to other types of patent based on less stringent standards of novelty which encourage local technological innovation activities. This is particularly true of Iran which has not provided, from the inception of her patent legislation, for other types of patent to

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38 The 1921 Japanese Patent Law declared that an invention was not new if it "has publicly known or publicly used within the Empire before application of a patent" (Articles 4.1) or if it "has been described in a publication circulated in the Empire in such a manner that it can be easily worked" (Article 4.2). For an English translation of the law, see Becker E. D., *The Patent, Trade Mark, Design, and Utility Model Law of Japan*, London, 1970, p. 6.

39 Interview in Geneva by the author with Mr. Jaiya, G., S., senior program officer of WIPO who is responsible for Asia and the Pacific countries including Iran, December, 12, 1994, Geneva, WIPO.


42 This justification reveals one of the disadvantages of the Paris Convention for non-industrial countries. This issue was considered in more details in Chapter Four.
internalise inventions and encourage the local entrepreneurs in technological innovation activities.

(d) Lessons from Other Developing Countries

Some developing countries, in order to accommodate the conflict between international patent policy and national industrial interests, have adopted a so called two-tier patent system. According to that, incentives are provided for attracting foreign advanced technology, as well as for domestic technological activities. Foreign advanced technology is attracted with full patent protection as an incentive. Domestic entrepreneurs, particularly small and medium firms are also encouraged to engage in inventive activity and to invest in the introduction of new products and processes through unconventional patents. These patents internalise inventions already made and encourage innovations rather than protect foreigner's patent monopoly, and have been recognised as the major function of patent system in developing countries. It is submitted that, a well adapted unconventional patent will, in the long term, improve indigenous technological capability and lead to research, investment and production in the developing countries. Such a system also will strengthen the negotiating power of developing countries for the acquisition of foreign technology.

The unconventional patents range from the introduction of inventors' certificate, utility models, improvement of the existing technology or conversion of that technology to some other application and the introduction of unpatented foreign technologies to the country. These are elaborated upon below.

III. Unconventional Patents

(a) Inventors' Certificates

The award of Inventors’ Certificates is a common form of industrial property protection in some emerging market economies. Unlike a patent holder, the certificate holder gains no monopoly rights to exclude others from use of the technology. Under the certificate arrangement, state-owned companies hold the exclusive rights in the invention while the inventor is entitled to receive remuneration when savings in production costs are made through the use of the invention. The grant of the right is not necessarily restricted in time.

Similar to the grant of regular patents, the invention must be novel, it must pass the "first application field" principle and foreigners can apply for the certificate. Furthermore, the certificate is also intended to encourage research and development of an invention to the stage of industrial applicability and to provide disclosure of the invention specifications to the public. The certificate can benefit the state-owned companies if they can effectively work the certificated inventions. The distinct disadvantage of such a certificate is that effective working of the invention is not encouraged.

44 For instance, Bulgaria, Rumania, Poland, and the former USSR, Cuba, Vietnam and the Peoples' Republic of Korea.
45 Baxter & Sinnott, op. cit., note 33, p. 8.3; UNCTAD, TD/B/AC.11/19/Rev.1, supra, Chapter Three, note 5, p. 2.
46 UNCTAD, DT/B/C.6/91, supra, Chapter Two, note 25, para, 12.
(b) Utility Models

Utility model or petty patent means "an invention protectable, upon application through the registration, by a government office, of the description, drawing or other picture or also by the filling of a model." Utility models give exclusive rights to those inventions that do not necessarily satisfy the requirements of patentability but offer some useful function. Utility models, provide protection not for a process but rather for the shape or configuration or combination of both of certain inventions in the mechanical arts. They also fill the gap between traditional patents and industrial designs.

An object to qualify as a utility model should not have been used publicly or described in a printed publication in the granting country. In other words, prior to the date of application, it should be novel in the country not in the world. The scope of protection however, is narrower and its term is considerably shorter than standard "patentable" inventions. The best known of this kind of patent are the German (since 1891) and Japan (since 1905) utility models. Grants of utility models have played an important role in the industrial development of Germany and Japan. Twenty five other countries have introduced legislation empowering the grant of utility models.

On the whole, it is believed that the gap between big firms and small and medium sized ones in relation to taking advantage of patent activities and establishing industries is bridged by the introduction of utility models. The utility patents suit those countries, like Iran, that want to take maximum advantage of advanced imported

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49 For the purposes of industrial property law, inventions are classified into three major technical fields, namely, mechanical, chemical and electrical and electronic. Petty patents are mostly concerned with the mechanical arts. This is why, they are also called devices or useful objects.

50 Among these countries are: Australia, Brazil, China, France, Italy, Morocco, the Philippines, Poland, Portugal, Spain, South Korea, Taiwan and Uruguay, Baxter and Sinnott, op. cit., note 33.
technology for industrial growth and at the same time provide enough incentives for domestic technicians and employees to do inventive activities.

In practice, advanced foreign technology is imported, mainly through technology licensing agreements, with full patent protection as incentives, then national firms can use it as a base and improve the quality and increase the quantity of its production by supporting inventions and minor advances. Therefore, the utility patents indirectly facilitate transfer of technology. According to the WIPO industrial property statistics, the number of applications for utility models is usually very close to the number of regular patents. Nationals and residents have filed the majority of utility model applications. In South Korea, for instance, between 1968 to 1982, 111,982 applications for utility models were made, out of which 5548 were filed by foreigners and 106,434 by local firms or individuals.51

At the time of the writing of this thesis, utility patents are being considered seriously in the EU, and the EU Commission has started a study with a view to harmonizing the utility patent laws of Member States. On the other hand, although the utility model as an industrial property right has been recognised by the Paris Convention, Iran has not recognised such a right for both local and foreign innovators. As a consequence, domestic inventive activities for innovations of minor important technology which can stimulate technological progress are not encouraged by the patent system.

(c) Patents of Improvement or Addition

It is interesting to note that, instead of utility models, the Iranian Patent Act provides for the grant of patents of improvement in favour of the principal patent holders. The Act states that a patent holder whose invention has been patented abroad may acquire

51 See WIPO, 100 Years of Industrial Property Statistics, Geneva, 1983.
a patent of improvement for improvements, alterations and additions in respect of his basic patented invention. While third parties also are authorised to obtain patent of improvement for an invention that has been patented by others, the permission of the original patentee is necessary for the improvement patent holder if the improvement is to be worked.

Whereas in some countries such a patent is granted irrespective of whether or not the subject matter is universally novel and involves any inventive step, under the Iranian law, the improvement patent should also meet the basic requirements of patentability. As a consequence, there is little possibility for local enterprises to be able to secure patents for improvement of foreign patents. Even when such a patent is secured by a domestic entrepreneur, as was mentioned above, he cannot utilise it without the permission of the original patentee.

(d) Patents of Importation or Introduction

Another type of patent which has been introduced to encourage and facilitate the transfer of technology is the patent of importation. Patent of importation which is also called the patent of confirmation, revalidation or introduction, is a patent generally awarded for the import of economically desirable technologies previously unknown in the granting country but which are available abroad. The key purpose of patent of

52 Iranian patent law, Art. 30, the Regulations, Art. 24 and 36. The duration of such a patent is restricted to the unexpired term of the basic patent.


54 For instance Colombia does not require novelty for this type of inventions, Baxter and Sinnott, op. cit, note 33.

55 See Iranian patent law, Art. 37 (remark). It states:

Any invention, or any improvement of an existing invention shall not be considered novel if, prior to the date of application, its descriptions or plans thereof have been printed, in writings or publications available to the public, or if it has been worked or utilised either in Iran or abroad.
introduction is to encourage the introduction and adaptation of an existing technology to a new market.\textsuperscript{56} Stringent novelty requirements\textsuperscript{57} are overlooked with the expectation that the patentee or preferably a local enterprise will exploit the technology within the country.

Surprisingly, the Iranian patent regime, which mandates absolute novelty for local and foreign inventions, has placed severe restrictions on the patent of importation notwithstanding its reasonable objectives. According to Article 30 of the Iranian Patent Act, inventions registered abroad may be patented in Iran for their remaining term, not by local entrepreneurs, but specifically by the registered foreign owners of the patents.\textsuperscript{58} The only restriction imposed on the foreign patent holder is when a person or firm in Iran has worked the patent wholly or in part or made preparations for such use prior to the date of application for the registration.\textsuperscript{59} In this regard, the foreign patent holder although he may still obtain a patent for his invention in Iran, he cannot object to the operations of the local person or firm in the country. This exception was adopted from the Swiss patent law which supports those who have used or have made preparations of use of the invention in goodwill in Switzerland.\textsuperscript{60}

Iran, however, has not recognised the importance to her economy of importation and exploitation of those foreign inventions which have not been patented

\textsuperscript{56} Since, a considerable number of patents are industrialised countries-oriented inventions, even when those inventions are patented in non-industrial countries, certain adjustments are required to be adapted to the developing countries. Accordingly, there should be some incentives for technology owners as well as for local enterprises to adapt and commercialize the imported technology.

\textsuperscript{57} It is worthy to be recalled, when an invention patented abroad and its priority period has been exhausted, it can not fulfil the universal requirements novelty of other countries. In fact, countries patent those inventions, extend the priority period until the invention is produced or sold in the country.

\textsuperscript{58} Iranian patent law, Art. 30. "An inventor who has obtained a letters-patent for his invention in his name outside Iran in accordance with the local laws and regulations can, if the term of the patent has not expired, apply for a patent in Iran for the remaining term thereof.

\textsuperscript{59} Iranian patent law, Art. 30.

\textsuperscript{60} Imami N., \textit{Inventor's Right: Comparative Study of a Branch of Industrial Property}, Teheran, 1971, p. 155. (in Persian)
in Iran but which are required for her economic and industrial development. Iran has not recognised that local entrepreneurs should be encouraged to do so. One of the main problems of the Iranian Patent Act has been its isolation from the scientific and technological needs of the country. The law was devised to grant patents to foreign and national inventors on equal terms without realising that they are not on the same footing economically and technologically. Having such an inappropriate law inevitably would weaken the local licensees’ bargaining power vis-a-vis foreign licensors. Thus, there should be a serious examination of what the Iranian patent system was supposed to do as regards local inventors and public interests when it was brought into existence.

Still there are other differences between patent of introduction granted in Iran and other developing countries. Unlike Iranian patent regime, some countries, which adopted such a patent\textsuperscript{61} to ensure local working of the invention, have allowed importation of the subject matter of the invention by third parties.\textsuperscript{62} Meanwhile, it has been proposed that the owner of the patent or the licensee would be penalised for not working the invention.\textsuperscript{63} The BIRPI Model Patent Law requires annulment of the patent of introduction if holder of such a patent does not work the invention within the country within two years of the date of grant of the patent, or if effective exploitation subsequently ceases for a period exceeding two years.\textsuperscript{64}

\textsuperscript{61} Twenty four countries offering such patents were listed in Ladas S., Patents, Trademarks and Related Rights: National and International Protection, 3rd ed., 1975, p. 218.

\textsuperscript{62} See e.g. Uruguay patent laws in Baxter & Sinnott, op. cit., note 33, pp. 8.3-8.4.

\textsuperscript{63} BIRPI Model Patent Law, op. cit., note 41, Sec. v.

\textsuperscript{64} Ibid, Sec. iv, par.(d).
Another proposal for the optimal exploitation of inventions and for the provision of adequate incentives to the foreign patentee to cooperate fully in achieving the successful working of the invention is what the WIPO calls the "transfer of technology patent." Here again, the legal requirement of novelty is reduced as regards this untypical patent for the guarantee of acquiring needed existing technology. As discussed above, the technical information that patents have to provide is not sufficient for a large number of patented inventions to be worked economically in the developing countries. Additional technical information is required.

This information might be obtained either by indigenous research and development which can be very expensive and take a long time, or by purchasing the information from the patent holder or other firms. Almost invariably, the additional knowledge is sold to the transferee through know-how licensing. It is interesting to note that WIPO, by introducing this form of patent title, has recognised the inadequacies of the traditional patent system in providing enough technical information for the sufficient utilization of patented inventions in developing countries.

The "transfer of technology patent" is granted to the existing foreign patent holders, providing that the foreign party has concluded a transfer of technology contract with a local party. The patent is granted jointly to the foreign and the local parties, but the invention should be worked either jointly or by the domestic


66 Ibid. Sec. 603(1)(i).

67 Ibid, Sec. 604(1)(b). The domestic party required to be a person having an effective and serious industrial establishment in the country or proving that he will have such an establishment. Ibid, Sec. 604(1)(ii). This paragraph continues, if the domestic party is a legal entity, the majority ownership and effective control thereof is vested in nationals of the country.

enterprise alone.\textsuperscript{69} The foreign party transfers to the local party all the know-how related to the invention which is necessary to enable the invention to be worked.\textsuperscript{70}

Although the proposed patent has tried to respond to the needs of developing countries for the transfer of technology and cooperation,\textsuperscript{71} the results would be even better if such patents could be granted unconditionally even in circumstances where a foreign grant does not exist and the original owner of the patent is not available. Foreign patent holders will be under great pressure to seek for themselves transfer of technology patents and patents of importation because failure to do so will result in other foreign and local firms applying for these secondary grants. It should be borne in mind that, as has bee examined above, granting of such patents would not violate the Paris Convention and the TRIPS Agreement. Developing counties through such patents would provide sufficient incentives and protection for local firms as well as for foreign patentees to invest in working those technologies that are new and needed in the country. The granting of such patents, however, would be advisable only if key and valuable parts of the technology are included and the law is enforced. Otherwise, it will lead to monopolies for inventions which are already in the public domain causing still more harm to a country's economic development.

\textbf{(f) \hspace{1em} Direct Protection of Innovations}

For a country like Iran where private entrepreneurs are supposed to have a wide role to play in the economic and industrial development and to increase

\textsuperscript{69} Ibid, Sec. (604)(2)(i).

\textsuperscript{70} Ibid, Sec. 604(b)(ii)

\textsuperscript{71} It may be recalled that, a prominent characteristic of transfer of technology licensing in developing countries is the supply of additional technical information through know-how agreements. See for instance, Dessemontet F., \textit{Transfer of Technology Under UNCTAD and EEC Draft Codification: A European View on Choice of Law in Licensing}, J. Int'l. Eco. vol. 12, 1977, pp. 1-55. The author quoted that licences on unpatented know-how account for approximately 98 percent of technology transfer to non-industrial countries. Ibid, p. 14.
productivity, still other unconventional patents are conceivable. As was noticed in the historical survey of the industrialisation of Iran, Chapter One, almost all improvement activities and programmes in the country started from the top downwards and did not succeed to involve people into productive activities. In other words, there has not been any serious plan and action to create a favourable climate for the flourishing and development of private sector in manufacturing products required by society. Unfortunately, as noticed above, Iran has not benefited from the protection of traditional patents. The Iranian Patent Act has not created a supportive and encouraging environment for local innovative activities. It has not been also an effective vehicle for industrial investment and the transfer of technology. Such insufficiencies have been more harmful in the present economic and political situation of Iran in comparison with the time of Shah.

Before the fall of Shah, Iran’s oil revenue was huge to the extent that the country could not absorb it. Therefore, Iran either invested or gave as loan a part of her income to some foreign countries. The political situation of Iran, at the same time had provided circumstances in which, as considered above, some foreign investments took place in the country, albeit as assembling industries with low local content and little effective transfer of technologies.

In the post revolutionary Iran, however, the country’s oil revenue has dropped significantly. The government invested a considerable amount of its income in providing a sound infrastructure and in establishing heavy industries. But, the government has not succeeded to create a favourable climate for industrial investment by the private sector although it has conceded the need for incentives to the private sector to invest in manufacturing as a solution for rescuing the economy. There is a huge amount of private capital in Iran which unfortunately is rarely invested in manufacturing industries. The capital, instead, is used in buying and selling foreign

72 For instance see article written by Mr M. Assali in Keyhan Havai, March 2, 1994, p. 18. Other requirements for the recovery of Iranian economy are passage of specific law regarding monetary policies, encouragement of export of non-oil goods, transfer of advanced technology to the country and education and training of needed labour. Ibid.
currencies, gold, other capital properties and investment in the non-productive sector. This trend raises an important pertinent question: in circumstances where a country is not able to create favourable climate for industrial investment by the local private sector how can foreign nationals be expected to do so?

One answer to the problem lies in the lack of sufficient legal protection of investments in the manufacturing sector. The deficiencies in the legal system do not present the same risks and insecurity to those engaged in buying and selling and in areas of the service sector. The manufacturing sector is perceived as risky, legally insecure and less profitable. Unfortunately too, Iran has not benefited from the unimaginative protection of conventional patents for encouraging industrial and innovative investment. The direct protection of innovations in a way that will be introduced by this work will help Iran to provide the right incentives to the private sector to invest in innovative and technological activities and apply the results to the manufacturing of products competitive in the domestic and world markets.

It is interesting to note that in 1994 investment in non-productive sector in Iran could secure 20% profits while maximum profits for production and innovation was between 10 to 15%. See Keyhan Havai, April 6, 1994, p. 25.
(g) Innovation Warrant and Innovation Patent

Professor Kingston and Krononz have already addressed the question of direct protection of innovations. They quite independently proposed two almost identical models designed to promote creative activities and manufacturing capacity.

Kingston’s model is usually called innovation warrant. He has chosen "warrant" rather than "patent" because warrants are granted by a newly established innovation office and in exchange for actual investments in working the new ideas rather than the ideas themselves. He places more weight on innovation than invention. This school of thought believes that in the process of technological change while invention is the easy part, innovation is much more difficult. Through the introduction of the innovation warrant local as well as foreign firms will be encouraged to use any information in the public domain to manufacture those new products which were not previously manufactured locally and which are badly needed by the country.

Like during the early years of patent grants, the true and first inventor is the true and first founder or promoter of a manufacture. Invention in the abstract meaning the mere exercise of the inventive faculty unaccompanied by actual manufacture of the invention would not be sufficient to secure a patent grant. The valid consideration for the grant of an innovation warrant will be the manufacture of the subject matter itself regardless of the origin of the inventive ideas which are applied in the manufacture. Therefore, Kingston’s proposal would involve the re-introduction of something like the old system under which limited monopolies were granted in return for the introduction of new industries.

Kingston has argued that in a competitive market where prices are pushed down as much as possible investment is not made for the production of a first-time

product unless there is a real and strong monopoly that will give sufficient "head start" over competitors and a legal security to encourage firms to invest in innovation. In other words, market power\textsuperscript{75} is an integral part of innovation. Multinational corporations in commercialising new ideas have relied mainly upon their capability, secrecy and persuasive market power. Patent monopoly rights are used to reinforce the other market powers. For those entrepreneurs which do not possess such market powers, a real and strong monopoly should be devised in order to encourage them to invest and to innovate products and compete with imported products. As a result of such a "real monopoly", investments are increased, employment is created, smaller firms grow and the power of multinationals decreased and foreign economic pressure is resisted. The length of the monopoly period of innovation patent depends on the project and the commercial risks involved.

In granting a innovation patent, the legal requirement of inventive step and universal novelty criteria for ordinary patents are replaced by the single criterion of local novelty alone. This can have a stimulating effect on both inventive activity and investments in the country.

In order to provide circumstances in which innovations are worked, Kronz also has introduced an almost identical new protection which he calls innovation patent. Some important differences exist between the Kingston and Kronz's models. In the Kronz's scheme, the patent office is responsible for granting innovation patents as well and, therefore, the establishment of a new office is not necessary; the innovation warrant is not granted for mere importation whereas importation may satisfy the requirements for innovation patents; innovation patent may be secured by commercial enterprises as well as individuals and research and development institutions and new processes are not granted innovation patents.\textsuperscript{76}

\textsuperscript{75} Power which act to keep others out to excludes others from competition and to erects barriers to entry to a market.

\textsuperscript{76} Kronz, Part 1. op. cit., note 74, p.181.
It can be seen that the adoption of the local novelty criterion in the grant of patents can have positive effects on industrial investments, increase the flow of technology and strengthen the bargaining power of the technology recipient countries. However, one should notice that Kingston and Kronz designed their innovation schemes for promotion of manufacturing capacity and incremental innovations within developed Western economies. In other words, not all developing countries may benefit from the application of such schemes. It is submitted that a successful and effective innovation certificate scheme for the developing countries is highly dependent on, at least, two factors:

- the administration of the competent office which should be more active than a present-day patent office; and
- the existence of a big enough market to generate competition.

Iran has a huge market and already has started the process of dismantling trade barriers and has committed herself to a free market economy. But, unfortunately the Iranian patent law has established a patent office whose main function is nothing more than the registration of the patent applications. Such a patent office understandably is not an effective instrument for certifications of innovations.

In the next chapter based on the considerations above and given the particular problems facing Iranian industries, and the positive role of the local novelty criterion, the thesis will recommend a development of technology law which encompasses patent


79 See supra, Chapter One, text accompanying note 77.
rules, transfer of technology rules and antitrust rules in a single piece of legislation. The proposed Patent Office has a structural relationship with the offices dealing with Transfer of Technology and Competition. These offices will be under supervision of a single independent agency whose central purpose will be to develop a technological base in the country and advance industrial progress. Such an institutional arrangement will make the Iranian patent system an industrial development-driven system, thus, capable of effectively administering the grant of innovation certificates.

IV. Examination of Patent Application

Another shortcoming of the existing Iranian law lies in its provisions governing examination of patent applications. The examination of patent applications to decide whether the invention and its specifications satisfy the law is important for the diffusion of new technologies. There are basically two distinct approaches regarding the examination of patents; pure registration or minimal examination and substantive examination.

(a) Registration

Iran grants patents upon registration and doing only procedural examination of documents and fees without making adequate inquiry about the patentability of the invention. The law states that such a patent "shall in no way constitute proof of utility or novelty or genuineness of the invention, and likewise the said document shall in no way constitute a proof that the applicant or his principal is the real inventor, or that
the description of the invention or its drawings are correct." In other words, patents are granted at the risk of the patentee and without any guarantee as to their validity. Naraghi in his article about intellectual property in Iran has recognised two main advantages of such a system for Iran. First, it is the most economical method for the registration of patents. Second, no one knows better than an inventor that his invention "has reality" and whether his invention is novel or not.

The above reasoning misses the overriding purpose of a patent law in a developing country, namely, to enable the country to develop its own technological base. A serious disadvantage of the minimum examination of inventions is that there is no assurance of the validity of an Iranian patent. The validity of such a patent is difficult to ascertain until the patent holder is forced to defend the patent against an allegation in court that he has infringed another's patent. This certainly discourages investment in the commercialisation of patented technology. The grant of such patents will not help the growth of indigenous research and development and will not create a suitable environment for the innovative talents to flourish. As Professor Cornish states: "if the patent system is to provide a useful incentive for the making and commercial introduction of major inventions, it must give sound rights of clear scope. The current movement to strengthen the examination procedures of patent offices should accordingly be pressed ahead." 

It is also unrealistic to believe that the minimal examination approach will attract many applications for patents and encourage the transfer of needed technology. This is partly because the purchaser of a technology which is covered fully or partly by patents generally is interested in obtaining a position that is not likely to be endangered by the invalidation of those patents. According to the Iranian Patent Act,

80 See Iranian patent law, Art. 36.


to invalidate a patented invention, it is sufficient for an interested party to prove that the invention is not novel in the world. This uncertainty would be worse for those small and medium-sized firms that lack other market powers to rely upon them for innovative activities. As a consequence, the validity of a patent and its value is very dependent on the type of examination procedure.

Besides, the granting of invalid patents burdens patent documentation and decreases and weakens the informational function of patent protection. The latter is particularly true in the case of Iran. In an interview with the director of the Iranian patent office, it was revealed that the patent documents in Iran disclose little information, thus, are rarely used by Iranian firms and researchers. Likewise, in the absence of sufficient examination, the patent system may be abused by the granting or upholding of patents for inventions that do not actually merit protection. This in turn may result either in discrediting genuine and valuable inventions in the country, or in using such patents to take advantage of licensees who normally lack enough bargaining power in the first place.

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83 Iranian patent law, Articles 36-37. It should be noted that the present Iranian Patent Law would not also satisfy the TRIPS Agreement which requires transparency as to the administration of intellectual property laws of Members. See Article 63 of the TRIPS. The patent law proposed by this thesis would provide for such transparency through an enhanced administration, including thorough patent application research, and effective protection of patent rights on the basis of the TRIPS Agreement. See infra, Chapter Ten and Appendix Two.

84 Interview with the Director of the Iranian Patent Office, supra, Chapter Three, note 57.

85 In many developing countries including Iran, save a few people, even those who are involved with the industries have insufficient knowledge about the patent system. Thus, at the outset they use to attach a considerable importance to a registered invention. But sham inventors who just by fulfilling the easy requirements -in most cases by paying the legal fees- obtain patent grants, because they are not able to bring about any actual innovation, cause a distrustful environment in which even the genuine and actual inventions and innovations are distrusted.

(b) Substantive Examination of Inventions

Under another approach, the patent is granted following a thorough examination of the prior art and applying strict requirements of patentability. Most industrialised countries have adopted the thorough examination. The examination as to substance indeed is very crucial for the acquisition of new foreign technology. However, to carry out a comprehensive examination and research, a competent system with qualified staff is required. Today, Iran has research facilities, data banks, and skilled scientists and engineers needed to conduct such an extensive examinations.87

Iran may adopt the principle of "deferred examination." This is a system of examining procedure whereby patent applications are examined comprehensively at the request and payment of the applicant or a third party within a specific period of time. Under such a system, economically immaterial inventions are granted patents without the burden of excessive fees and comprehensive examination but more precious technologies would be subject to a substantive examination. In this regard it has been recommended that Iran to ratify the Patent Cooperation Treaty (PCT) which has provided a universal network procedure to facilitate a thorough research and examination of patent applications.88

87 Interview in Teheran by the author with the authorities of Organization of Scientific and Industrial Research, Scientific and Information Services Centre of Ministry of Jahad Sazandegi, Research and Training Department of Ministry of Industry, and the Iranian Patent Office, January 1995.

88 See Fasih Marnani M., The Patent Cooperation Treaty, University of Kent, 1989. The (PCT) to which about 40 countries are parties, is designed to achieve greater uniformity and less cost in the international patent filing process, and in the examination of prior art. Under the (PCT), a single patent examination is performed for all relevant prior art, and the result is reported to each member country in which the patent applicant desires to file an application. PCT was done at Washington on June 19, 1970, amended on September 28, 1979, and modified on February 3, 1884. For the text, see WIPO Pub. No. 274(E), ISBN 92-805-0356-1, WIPO, 1994.
(c) Disclosure Requirement

Due to the importance of sufficient disclosure of patent information most statutes in return for granting patent monopoly to the inventor, require adequate disclosure of the invention in a clear and complete manner so that a person skilled in the relevant technology can manufacture the patented product if he can legally do so. The disclosure of patented technology accelerates the erosion of the value of monopoly rights and stimulates "inventing around" behaviour by local entrepreneurs.89 As a consequence, some laws enacted to alleviate the insufficiency of disclosure necessitate stricter requirements such as the so called "enablement" requirement (the best methods of making or using the invention). In this regard, Section 112 of the American Patent Act reads:

*The specification shall contain a written description of the manner and the process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.*90

Similar provisions are contained in the U.K patents Act of 1977. India’s Patent Act of 1970 also emphasised on Indian nationals possessing average skill in the art to be able to work the invention on the basis of the description. Such requirements assure that the public receives "*quid pro quo*" for the limited monopoly granted to the

89 Evenson, *supra*, Chapter Four, note 130, p. 331. Evenson has divided inventors into three categories; (1) those who are pioneers and initiate technology field; (2) those who produce inventions for the major consumer and derivative factor markets; and; (3) those who adapt primary market inventions to secondary markets. Most inventors in non-industrial countries belong to the third category in which exclusively depend on disclosure effects. Ibid.

inventor. It is submitted that the stringent disclosure requirements can be effective to decrease and eliminate the need for additional cooperation of the patentee to provide necessary know-how for the successful working of the invention in the case of the compulsory licensing.

In this regard, the Regulation of Iranian Patent Act requires that the specification of inventions must be "legible and written in such a way that, by reading it, people in position of information be enabled to understand its subject and novelty." The latter requirement seems very odd because one should not expect the "novelty" to be recognised from the specification of inventions. With regard to the huge number of new patent documents which are filed every year worldwide, the question is whether the Iranian patent office can assess novelty of an invention from its specification in the absence of sufficient trained officers and an exhaustive research capability throughout the world. The former requirement namely, understanding of subject matters of invention by reading the specifications, does not mean that the disclosed information is sufficient for working the invention as well.

Patent specification usually includes the description which may be accompanied by diagrams and drawings, and the claims. What the descriptions provide is to show how to work the invention and detailed claims. Such a disclosure must be sufficient for it to be performed by an appropriately skilled person. The legal requirement that descriptions should be "clear" in practice indeed is open to different interpretations some of which may be insufficient for the effective dissemination of technology. The weakness in the Iranian Patent Act is the absence of sanctions that must be applied in the event of insufficient disclosure. By contrast, under some patent laws failure to

91 See Chisum D. S., Patents, 1992, vol. 2, at 7.01. The TRIPS mandates disclosure of issued patents, and it also requires explanations of the best mode for practising an invention known to the inventor at the time of filing. TRIPS Agreement, Art. 29(1).

92 The Regulations of Iranian patent law, Art. 26.

93 Between 1,500,000 to 2,000,000 patent documents are filed per annum, see the interview with Mr Jaiya, from WIPO, op. cit, note 39.
disclose the invention sufficiently is regarded as an abuse of monopoly right and the patent could be invalidated.\textsuperscript{94}

It is not surprising, thus, that patents granted in Iran are rarely mentioned as sources of technical information for research and development. This does not mean, however, that the Iranian authorities are not aware of the real value of patents' technical information. Several Iranian research centres have already attached importance to the information disclosed in patent documents. For instance, in a research centre belonging to the Ministry of Jahad Sazandegi, by now about 4,000,000 foreign patents' specifications, have been bought from international organisations, and are kept and available as sources of technical information for further research activities.\textsuperscript{95} Iranian Patent Act has failed to provide a legal framework within which the accumulation and dissemination of valuable technical information through disclosure of patent specifications can take place.

\textsuperscript{94} For instance, under the U.K patent law the specification of inventions which do not disclose the invention clearly and completely enough for them to be performed by a person skilled in the art, constitutes a breach of contract by the inventor and results in a loss of patent rights right and revocation of the patent. The U.K Patents Act of 1977, Article 72(c).

\textsuperscript{95} Interview in Teheran by the author with Mr Taghavi the Director of Scientific and Information Services Centre of Ministry of Jahad Sazandegi, January 8, 1995.
V. Working Requirement

As discussed above, a patent is granted in return for the patentee's undertaking to exploit the technology within the country to give benefits to the local economy. 96 The exploitation of patented inventions locally generates some benefits for the patent-granting country: it absorbs surplus labour and creates local income, the technology is learned and applied by nationals involved in manufacturing the product (learning by doing), technical know-how which is very vital for a more economic exploitation of the patented technology is transferred, national resources are used more efficiently, the country gains foreign exchange if the products are exported and saves foreign exchange by reduction of importation of the manufactured articles. Therefore, most national patent laws require that a patent must be applied commercially within a certain period of time within the country. This requirement is so important that most patent laws mandate a "compulsory licence" to local firms and provide for revocation of the patent or automatic lapse if a patent is deemed unworked. 97

(a) Patents in Technology Transfer

The importance of the working requirement in patent law stems from the fact that foreign technology is transferred when a patent is exploited either by the patent holder himself or when the patent is licensed accompanied with the needed technical know-how in the patent granting country. There is no doubt about the importance of the actual utilization of patents for the economic and industrial development of developing countries. Such an important role when viewed with the facts that patent laws prevent nationals from making, using, selling and even importing the patented

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96 See Cornish, op. cit., note 82, p. 78-85.
97 For instance see the U.K Patents Act of 1977, Article 48(3).
article and competing with patentees made most countries to devise appropriate requirements. The situation is exacerbated by the fact that more than 90 per cent of granted patents in Iran were owned by foreigners, mostly multinationals, and 99 per cent of these foreign patents were not used effectively in the country.\(^{98}\)

With regards to patents granted to proprietors of foreign technology, therefore, the primary concern for a developing country like Iran should be to ensure that these patents are worked in the country. It is the actual working of patents that, among other things, will help to build a strong technological base in Iran. Other advanced developing countries also reasoned that, although patent systems may stimulate new inventions and innovations, but, in fact, the actual working of inventions makes the most positive impact on economic and industrial progress.\(^{99}\) The actual utilization of inventions also leads to innovations and new related inventions and the financial power of a successful utilisation enables more research and further development of the patented product.\(^{100}\) Iran also must have adequate controls over foreign patents to be sure that those technologies which are important to her economic development are worked in the country as quickly as possible to the maximum extent feasible.

In short, intellectual property law in general and patent law in particular, should be viewed in developing countries as an instrument for economic and

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\(^{98}\) Interview with the Director of the Iranian Patent Office, op. cit., note 26; for the similar figure in other developing countries see UNCTAD, U.N. Doc. TD/B/AC.11/19/REV1, p. 56. It is worthwhile to note that, compared to developing countries, the number of unused patents in the developed market economy countries, have been very few. Among different reasons for that is that foreign firms fail to utilise their patents in a developing country like Iran because the expense involved is about $100 for twenty years protection and they do not feel financial pressure as well to utilise their patented technology in the country.


\(^{100}\) It is interesting to note that, a country like Spain which in the line with some developing countries enacted technology transfer regulations, in its recent law on patents has placed a great significance on the obligation to work of patents. The reasons that led the legislator to require such a measure was stated, among other things, the idea that the main objective of patent system is to promote technological and industrial progress in a country through the effective working of patents, therefore the working of the patented invention is an obligation for its holder to be fulfilled. See Casado Cervino, supra, Chapter Four, note 50, p. 334.
technological progress. The law must strike a proper balance between the monopoly rights to stimulate the creation of new technology and the dissemination of both new and old technological skills and knowledge.

According to UNCTAD reports, unlike Iran, a number of developing countries have introduced changes in their patent system during the 1970s. Depending upon the degree of their development, the changes have generally tended to reinforce the provisions governing the actual working of patents and to prevent the use of intellectual property regimes as means to preserve import monopolies through introduction of stricter provisions for compulsory licences and revocation as remedies for non-use and through strong provisions against abuses in patent licensing agreements. 101

For example, section 83 of the Patent Act (1970) of India accentuates that: (a) patents are granted to encourage inventions and to secure that the inventions are worked in India on a commercial scale and to the fullest extent that is reasonably practical without undue delay: and (b) they are not granted merely to enable patentees to enjoy a monopoly for the importation of patented article. Apart from India, between 1970 and 1975, four other developing countries introduced changes in their patent legislations: Peru in 1970, Brazil and Colombia in 1971, and the Republic of Korea in 1973. 102 Since December 1975, at least 10 developing countries, of which three (Mexico, Philippines, and Sri Lanka) are members of the Paris Union have introduced substantive changes in their industrial property legislations.

These changes emphasised the working obligations of patentees, and they were recognized as significant steps towards adapting the patent system to the needs of


economic development.\textsuperscript{103} It is interesting to note that, industrial countries themselves, at earlier stages of their own industrial growth had the same propositions. As a writer puts it, the United States of America during its first hundred years seems to have behaved as many developing countries do today:

\begin{quote}
When the United States was still a relatively young and developing country...it refused to respect international intellectual property rights on the grounds that it was freely entitled to foreign works to further its social and economic development.\textsuperscript{104}
\end{quote}

However, the issue of actual working has been underestimated in Iran. By virtue of Iranian Patent Act only after 5 years have elapsed from the issuance of the letters-patent and the invention has not been actually worked that an interested party may bring a legal action to nullify the patent. Since importation of patented goods is one of the rights conferred upon the patentee a foreign patentee has at least 5 years exclusive right to import the patented goods to Iran.\textsuperscript{105} There is no compulsory licensing provision in the patent law of Iran. In this regard it may be argued that if a foreign patentee gains significant revenues from the importation of patented articles to Iran there would be little incentive for him to transfer technical knowledge related to the patented technology to the country and manufacture locally. In other words, patent privileges may be used to secure export markets in other countries, in particular, in those countries which do not have sufficient legal safeguards to compel the patent holders to work their inventions in the country.

\begin{itemize}
\item \textsuperscript{103} See U.N. Doc. TD/B/C.6/AC.5/3, op. cit., note 101, p. 3.
\item \textsuperscript{105} Iranian patent law, Art. 37(4).
\end{itemize}
(b) **Moltilan v. Iran Rehabilitation Industries**

An interesting case which, among other things, reveals the insufficiency of the Iranian patent system concerning the actual working of patented technologies is Moltilan v. Iran Rehabilitation Industries. In 1975 Moltilan, a Swiss company was granted a patent for an instrument, called I.U.D., which is used for the prevention of unwanted pregnancy. Although there has been a sizable market and sufficient facilities for the production of the patented article in Iran, the company has imported the article to the country for more than 18 years. In 1990, following the declaration of government policy on population control, the defendant, an Iranian company, after investing two years in research and development succeeded to manufacture a high quality I.U.D. The Swiss company took an action against Rehabilitation Industries Company in the Iranian courts on the ground that its patent rights has been infringed by the defendant. Unfortunately, despite the fact that the plaintiff has not manufactured the patented article in Iran, the defendant was condemned as infringer of the patent rights and was ordered to stop manufacturing and marketing the I.U.D.

This case also confirms the general statement in the earlier chapters that in Iran patents are obtained by foreign nationals mainly to secure a market in Iran and expand their exports and not for the working of the patented technology inside the country. Ninety-nine percent of patents granted to foreign nationals in Iran have not been worked locally.

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106 Moltilan Co. v. Iran Rehabilitation Industries Co. The case that was classified as 671/73, 1995 at the Branch 24 of the Tehran Appeal Court, has been recently referred to the first court to do more investigation. More details of the case have not been disclosed yet.

107 Interview with the Director of the Iranian Patent Office, op. cit, note 84.
VI. Compulsory Licensing

In the event a patent holder retains full control of his patent and does not exploit it sufficiently, in most industrial and developing countries, he becomes subject to the national compulsory licensing scheme. Compulsory licensing as a protectionist policy\(^{108}\) is designed to empower the patent granting country to grant a licence to anyone else to work the patent, whether the patentee is willing or not, in return of reasonable remuneration that is fixed by the competent authorities. For instance, the U.K Patents Act grants compulsory licensing where: the patented invention is not being adequately worked within the U.K.; the demand for the invention is not being met; demand being met on unreasonable terms; demand being met by importation; working of other improvement inventions being hindered or commercial or industrial activities in the country being unfairly prejudiced by refusal to license the patented invention on reasonable terms or at all; and unacceptable licence conditions and unwarranted restrictions on unpatented materials.\(^{109}\)

The BIRPI also has recommended adequate provisions for compulsory licences as of "exceptional importance" for developing countries\(^{110}\). It may be argued that the patentee by blocking and non-using the patent does not bring economic benefit of the invention to the society, thus, the main ground for its protection is destroyed. Furthermore, where a patented invention cannot be worked without using an invention which has been patented by another person, compulsory licensing would offer a good solution. Likewise, on the ground of public interests, such as public health and interest of national economy compulsory licensing is justifiable. Lastly, compulsory licensing should be imposed where the working of the invention within the country is being

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108 Cornish, op. cit., note 82, p. 208.
110 BIRPI Model Law, op. cit., note 41, p. 58.
prevented or hindered by the importation of the patented article. Some economists also have recognised compulsory licensing as the most important limitation of the patentee’s exclusive monopoly and the most effective and flexible method for working the patented technology and enabling the States to control more of the serious restrictions in industry. Compulsory licensing provisions will induce patent holders to work their technology themselves or to grant contractual licences on reasonable terms. Thus, the objective of actual working of the invention is accomplished.

Despite these facts, the Iranian Patent Act has neither adopted this solution to encourage domestic use of patented inventions that are dominantly owned by foreign firms nor has devised any alternative legal instrument.

VII. Restriction on Subject Matter

The exclusion of some inventions from patentability in most developed and developing countries is decided based on different reasons. Among them are:

(i) when granting a monopoly to an inventor costs more than its benefits to society. Foodstuffs, drugs and chemical substances usually are excluded based on that consideration. In other words, these types of inventions are excluded since, they are

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111 It is interesting to note that many countries apply the compulsory licensing and provide for revocation of the patent base on the public interests even in situations where the patentee has been exploiting his patent. In many cases, however, these provisions apply only to food and medicinal products. See UNCTAD, U.N., Doc. E/3861/Rev.1, supra, Chapter Four, note 65, p. 25.

112 For instance see Penrose, supra, Chapter Three, note 28, pp. 231 and 423.

113 The Paris Convention and TRIPS because of their many reservations, have adversely affected the effectiveness of compulsory licensing provisions. See supra, Chapter Four, text accompanying note 123, and note 29.
of vital importance for the people of the country and the grant of patents could have adverse effects on the general availability or the price of these commodities;

(ii) if an invention is considered contrary to public morality, order, and public health;

(iii) to protect infant indigenous industries from foreign firms with dominant market power and superior technology. Japan, for instance, applied such a restriction until Japanese pharmaceutical companies could compete with the pharmaceutical firms of industrialised countries;¹¹⁴

(iv) to control the development of the country;

(v) special importance of a technology to national defence or energy supply, such as, nuclear materials, atomic energy, atomic weapons;

(vi) inventions that lack technological nature, such as plant varieties and animal breeds.¹¹⁵

The Iranian Patent Act seems to have not taken into account the above mentioned considerations. In a general and ambiguous language, the Act excludes three categories of inventions from patentability. 1: Financial plans. 2: Any invention or improvement of an invention disturbing public order or contrary to morals or against public health. 3: Formulae and pharmaceutical compositions.¹¹⁶ In other words, other inventions whether products or process which are not covered by the


¹¹⁵ Ibid.

¹¹⁶ Iranian patent law, Art. 28.
above categories and fulfil other requirements of the law, such as novelty, are patentable in the country.

The apparent broadness of this provision has left enough room for the patenting of products and processes of a wide range of inventions in various fields of industry and agriculture including essentially biological processes for the production of plants and animals and plant varieties. These matters even in the industrialised countries are not either available or are very restricted. The European Patent Convention contains provisions which exclude plant and animal varieties from patent protection and does not explicitly allow the patentability of microorganisms. 117 Mexico to facilitate her trade relations with the United States has recently enacted to extend patent protection of biotechnological inventions only after 1997. 118

From the practical point of view, as noted above, the sheer broadness of Articles 26 and 28 of the Iranian Patent Act have also provided an ambiguous environment in which even exclusion of formulae and pharmaceutical components, in a way that the law has put, has been a matter of controversy. 119

It may be argued that the broad approach which has been adopted by the Iranian law could be useful when, other measures such as compulsory licences was actively available to prevent abusive practices. Compulsory licences, the exploitation by the Government or by third persons authorized by the Government can alleviate the disadvantages of such a policy. As was indicated above, the Iranian patent law contains no compulsory licences as well. Nevertheless to remove the existing uncertainty that would discourage research and industrial investment and at the same

117 Article 53(b) of the European Patent Convention states: “European patents shall not be granted in respect of patents and animal varieties or essentially biotechnological processes for the production of plants and animals. the provision does not apply to microbiological processes or the products thereof.”
119 See Abastra Co. Ltd. v. Industrial Patent Office of Iran, Branch 24, Supreme Court, 1995, Teheran.
time lead to court cases, the wordings of Article 28 must be improved. This has been suggested in the proposed law in the next chapter.\textsuperscript{120}

VIII. Rights of Patentee

(a) Assignment of Patent Rights

The most important requirements for any type of transaction relating to patents in Iran are "authentic act" and registration with the patent office.\textsuperscript{121} Otherwise the transaction, be it assignment or licence, shall not be valid as against third parties.\textsuperscript{122} Furthermore, when a patent transaction is concluded abroad, the transaction shall be valid against third parties in Iran after its registration at the "Teheran Registration Office of Deeds".\textsuperscript{123}

Of course the mandatory registration of patent transactions is desirable, necessary and important. The problem, however, is while assignments are not very common for the purpose of transfer of technology, they have been overemphasised by the law of Iran, as if the registration of inventions, without thorough investigation, and the registration of patent assignments like other type of tangible property are the main objectives of the Iranian Patent Act. It is in this regard that the designation of the Teheran Registration Office of Deeds for the implementation of the law makes sense. Furthermore, unlike other advanced developing countries, such a compulsory

\footnotesize{120} See also Appendix Two.
\footnotesize{121} Iranian patent law, Art. 40.
\footnotesize{122} Ibid.
\footnotesize{123} Ibid.
registration in Iran is not carried out to, among other things, inform the government about the grant of all assignments and licences and about the economic value of the patents involved.

(b) Patent Licences

Under the Iranian Patent Act, a patentee may license the right to use his invention, totally or in part, to another person.124 Similar to the assignment agreements, licence agreements to be valid should only be registered at the patent office. Given the nature and objectives of the Iranian Patent Act, it is not surprising that a minimal and liberal approach to patent licensing agreements was adopted by the law. Indeed such agreements are too important to be left entirely as a matter between the parties.

It is generally accepted that foreign industrial property rights, in general and patents in particular, are not utilised commonly in developing countries by the holders themselves but by domestic firms. Patent licence provisions, therefore, are stipulated in most enhanced patent laws to facilitate the utilization of patented inventions and establish a legal framework for the transfer of technology. It should be recalled that the main objectives of national patent systems among other things are: the encouragement of the indigenous innovative activities, industrial investment, scientific and technical research and development and the maximum exploitation of the inventions in the country. It is for the achievement of the above items that most well designed and enhanced patent laws usually facilitate the licensing agreements in the country. In the next chapter the thesis will suggest a comprehensive development of technology law which among other things deal effectively with the issue of technology licensing agreements in Iran.

124 Ibid. Art. 39.
Enforcement of the Iranian Patent Act

In addition to the weaknesses of the law itself, sad to say, there has not been effective enforcement of the law as well. It has been revealed that before 1979, about 500 songs were registered as inventions in the country.\(^{125}\) Similarly, despite the explicit prohibition of granting patents to formulae and pharmaceutical compositions by the law\(^{126}\) court proceedings in an undecided case\(^{127}\) disclosed that formulae and pharmaceutical compositions have been protected by the patent office during the last sixty years. The court reasoned that because the provision against such protection has not been implemented for the last sixty years the patent office has to register the plaintiff's application for the protection of pharmaceutical compounds.\(^{128}\)


\(^{126}\) Iranian patent law, Art. 27(3).


\(^{128}\) Judgment number 1238 of Branch 24 of First Degree Civil Courts, 837/72. Abasta, a Swedish company, through its Iranian lawyer based on the priority right provided by the article 4 of the Paris Convention applied for a patent for a pharmaceutical product. The patent office rejected the application based on a provision of the patent law which explicitly prohibits grant of a patent to formulae and pharmaceutical compositions. The company petitioned the Iranian courts for an order requiring the patent office to comply with the procedure lay down in the law and register the invention.
IX. Conclusion

In this chapter, the main features of patent law were examined in the context of its role in the transfer of technology. Some obstacles to the development of local technological capability and the legal devices to avoid the abuse of patent rights by foreign holders of patents were examined. By selecting the Iranian Patent Act as a case study, the intention was to show that, before the sixties almost all patent systems in developing countries had more or less the same shortcomings. They were a legacy of the colonial era and the developing countries did not have the required knowledge and experience of the workings of the patent law. As a result, the revision and adaptation of national patent laws as an instrument of their industrial and economic policy was among the first developmental activities of developing countries.

The chapter analyzed many loopholes in the Iranian Patent Act such as, the absolute novelty criterion, insufficient disclosure, non-working etc. However, it should be born in mind that national patent law reforms alone will not be sufficient to achieve Iran’s technological development goals. The patent law reform is only a part of a comprehensive law which deals with the legal elements that comprise the entire complex process of transfer and development of technology. In the next chapter, the thesis makes proposals for a unitary legal framework within which all industrial activities must take place in Iran and for the establishment of the institutions to administer and enforce the laws and provide the necessary balance between local and foreign interests. In the main, the legal framework will be concerned with the:

- implementation of intellectual property law;
- control of restrictive business practices;
- monitoring the transfer of technology transactions; and
- considering and awarding the innovation patents.
SECTION IV.

PROPOSALS FOR AN OPTIMUM LEGAL AND INSTITUTIONAL REGIME TO MAXIMISE THE TRANSFER OF FOREIGN TECHNOLOGY AND PROMOTE AND DEVELOP DOMESTIC INNOVATIVE ACTIVITIES
Chapter Ten

CONCLUSION: PROPOSED DEVELOPMENT OF TECHNOLOGY LAW OF IRAN

According to the thesis, patent laws of most developing countries are not the products of efforts to address their particular needs and circumstances: the privileges created by the Iranian patent system, for instance, have failed either to stimulate national inventive and innovative activities or to encourage rapid transfer, development and adaptation, through assimilation and widespread diffusion of imported technology.¹

Developing countries as a group have not succeeded in securing an international legal framework responsive to their particular needs in the area of transfer and development of technology. Despite the space provided by the Paris Convention and the TRIPS Agreement for developing countries to fashion their national laws, they continue to seek to reform the international patent system instead of directing their attention to adopting appropriate domestic legal measures to encourage the transfer and promotion of technology.

As a result, the current legal frameworks of developing countries do not yet provide effective institutional arrangements to resolve the conflicts that inevitably arise from the parallel enforcement of antitrust, intellectual property and transfer of technology laws by disparate government agencies with little coordination of purpose.

Intellectual property rights are protected in a separate legal framework and organisation while other aspects such as the registration of transfer of technology

agreements and control of restrictive business practices are dealt with by other independent organisations.²

The problem is a conceptual one. The government should be clear as to its technology development goals and conceive an appropriate institutional framework which can then be embodied in effective legal instruments. This thesis does both for Iran, but many of the proposals can apply to most developing countries in the process of industrial development.

The thesis proposes the enactment of a Development of Technology Law of Iran which would lay down rules for patent, transfer of technology agreements and protection of competition in Iran and, for the first time, would bring the three important areas of law under the supervision of a single independent agency of the government whose central purpose would be to develop a technological base in the country and advance industrial progress. In the post-TRIPS universe, such a technology-based legal framework is essential for developing countries to encourage technological innovations and competition and to prevent any abuse of a dominant position in the market. This represents a new approach to an old problem of developing countries. Hopefully, the impact in Iran would be the equivalent of the industrial revolution in Britain and Europe in the nineteenth century.³

The proposed new law (Appendix Two) is divided into four parts, Part One providing for the establishment of the Iranian Board for the Transfer and Promotion of Technology and describing the powers of its Director-General, Part Two, Three and Four detail the respective functions of the Patent, Transfer of Technology and Protection of Competition Offices and the powers of their Directors.

² Nigeria, for example has divided the functions between National Office of Industrial Property Act, 1977, which mainly deals with the transfer of technology transactions, and Patent Act of 1970 which deals with the patent grants. In India and Colombia also the implementation of transfer of technology, patent and control of restrictive business practices laws are divided between different ministries and agencies. See, UNCTAD Compilation, supra, Chapter Two, note 25.

³ It should be borne in mind that the effectiveness of all that proposed in this thesis will depend very much on the economic and monetary policies and goals pursued by the government. What has been done by this thesis is just an indispensable starting point.
I. Part One: Administration of Development of Technology Law

(a) Introduction

Legal reforms introducing better focused laws are not by themselves sufficient to extract maximum benefits from Iran’s efforts to acquire foreign technology and provide incentives for the participation of local and foreign nationals in the development of a local technological base. In addition to the enactment of new rules of law, professionally staffed institutions must exist to apply intellectual property, transfer of technology and competition rules in a way so as to ensure the achievement of the common objective of promoting industrial development without prejudice to the overall economy and the acquired interests of local and foreign investors. There is obviously the need to establish a suitable institutional framework to coordinate the enforcement of the three laws, which are most involved in the movement of technology across and within a country’s borders. The link between law and economic development is nowhere more conspicuous than in this process of technology exchange.

The fact that the protection of intellectual property rights, transfer of technology and maintenance of competitive markets cannot cohabit without some give and take between the different sets of legal rules suggests that the responsibility for the administration of the three functions should fall within the purview of a single agency. The reasons to support a single all-embracing organisation encompassing the functions of the patent, transfer of technology and protection of competition offices may be summarised as follows:

Patenting is a highly technical operation requiring the evaluation of the scientific and technological implications. While the legal implication is very important, protection of industrial property is not an end itself. As examined and submitted by this thesis, in developing countries, patent offices should shift their emphasis from merely providing legal protection for the applicant to using patenting as a means of
enhancing technological development in the country: Iran should strive to move in this
direction;

Distribution of the registration of patent rights and regulation between different
organisations with different registries is to create an unnecessary dissipation of energy
and hardship for users.

Such an arrangement would enable the optimum use of scarce professional
manpower.

With the continuing technological self-reliance and technological development
of the country, the scope of the statutory functions of the national transfer of
technology office as an independent unit would diminish progressively. The country,
therefore would rely more on:
   i) its local research findings and commercialise them as this is the key
to the actual development of technology, and
   ii) its competitive market.

The present dual patent licensing arrangement in most developing countries
which have enacted transfer of technology law, is a confusing overlap. While licensing
of patents is provided in the patent law, its duplication in the transfer of technology
law must have been prompted by the fact that the machinery for coping with these in
the registries were either inadequate or non-existent.

If the patent office and the office for transfer of technology and for protection
of competition were the offices of the same organization, it would be easier to find
whether technology to be acquired already exists in the patents office, and the
excessive restrictive clauses in the patented technology licensing agreement could be
controlled more effectively.

There are also circumstances in which a needed technology is patented in the
country but is not worked due to the lack of capital or/and additional know-how. In
this regard, the Transfer of Technology Office would be actively prospecting for potential investors and technology suppliers, national or foreign, and helping them to utilise the patented technology.

The present dual system in developing countries which have enacted transfer of technology law and antitrust law, is another confusing overlap. While controlling of RBPs is provided in antitrust law, its inclusion in the transfer of technology law must have been prompted by the fact that the machinery for controlling RBPs in the relevant offices was considered weak.

While there are many precedents to resolve the conflicts between industrial property rights and competition rules and to share jurisdictional power over common areas of interest, none exist to resolve issues raised by conflicts between competition rules and transfer of technology objectives. In the resolution of the issues relating to competition rules and industrial property rights, the Courts such as the European Court of Justice have played the dominant role. The thesis proposes a unique administrative arrangement for experts to deal with the conflicts on a routine basis.

Independent opinions support this proposal: for example the Director of the Scientific and Research Organisation and the Director of the Industrial Property Office of Iran have recommended that patent registry office should be merged into the proposed transfer and promotion of technology organisation.

4 For instance see Case 262/81, Coditel SA v. Cine-Vog Films 1982, E.C.R 3381, 1 C.M.L.R. 49 (1983), in which the Court has drawn a fundamental distinction between the existence of intellectual property rights and the exercise thereof. The Court also has developed the exhaustion doctrine of intellectual property rights. See case 192/73, Van Zuylen Freres v. HAG AG 1974 E.C.R., 73.

5 Moatamed M., supra, Chapter One, note 81; interview with the Director of Iranian Patent Office, supra, Chapter Three, note 57; interview with Sharifzadgan, supra, Chapter One, note 81; Mashaiekh, supra, Chapter Eight, note 68; see also Abaspour M., Technology and Contemporary World, Sadra Pub. Teheran, 1990, p. 186 (in Persian).
According to a field research conducted by this writer in Iran, many Iranian-owned firms found that they would benefit from the proposed IBTPT's application of the rules. (See Appendix Three)\(^6\)

The proposal would not violate Iran’s international obligations under the Paris Convention and the TRIPS agreement when the country becomes a member state of the WTO.\(^7\)

In general, the proposed IBTPT’s operations would not result in any conflict with technology suppliers, nor would they give rise to any restriction on the flow of technology to Iran. On the contrary, the proposed IBTPT rules would provide more legal certainty and security for foreign investment in Iran.\(^8\)

It is in the light of the above that the thesis proposes the creation of an Iranian Board for the Transfer and Promotion of Technology (IBTPT).

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\(^6\) A field study as to the proposed IBTPT was conducted by the writer in Iran. The Director of Twenty-five Iranian enterprises in the manufacturing sector (two automotive; ten rubber, glass, synthetic fibbers, petrochemical; and thirteen metal working, electrical, and non-electrical) were interviewed. See Appendix Three. Recently, the Iranian Chamber of Commerce, Mines and Industries which represents a considerable number of Iranian enterprises, stressed that, "although the protection of new inventions is necessary, such legal protection should not be used only for importation of the patented articles and to prevent the transfer and dissemination of technology in the country. Accordingly, the creation of a fair balance between the national and public interests, particularly in the post-TRIPS era, requires a sound and appropriate and responsive national legal framework." A paper submitted by Mr Khamoshi, the head of the Iranian Chamber of Commerce, Mines and Industries, to National Seminar of Reviewing Industrial Property Rights in Iran and TRIPS in World Trade, Teheran, Dec. 16-17, 1996. Stress added.

\(^7\) It should be noted that, according to the TRIPS Agreement all developing countries obtain a five-year transition period during which they need not conform domestic laws to the proposed international minimum standards. For the Least-Developed Countries, this blanket exemption lasts ten years and may be extended as circumstances require. Nevertheless, one year after the Agreement takes effect, all member countries must forego patent regulations that discriminate against foreigners. See TRIPS Agreement, Articles 65-67. No rules of the IBTPT would discriminate against foreigners: the rules would require effective implementation of granted rights.

\(^8\) See infra, IBTPT and Foreign Investment.
II. The Iranian Board for Transfer and Promotion of Technology

(a) Governing Body for the IBTPT

Given the importance of the subject matter of acquisition and promotion of technology, one of the most important questions is the authority that would govern and direct the IBTPT. It should be borne in mind that ministerial control of this type of corporation should be minimal and that the central objectives should be which governmental body has the closest connection with the IBTPT and therefore likely to give it the most attention, direction and assistance.

The first socio-economic development plan of Iran9—as well as the views of many Iranian authorities and scholars—10 has required the establishment of a Supreme Technology Council (STC) whose functions have the closest connections of all with the IBTPT. (Appendix One)

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9 See First Socio-Economic and Cultural Plan of Iran, Teheran, 1990, Article 4(8). The Plan was prepared by the planners and experts of Iran’s Planning and Budget Organisation and was passed by the Parliament.

The main role of the STC is to prepare a medium and long term national technology plan.\textsuperscript{11} The technology plan which would consist of important issues, such as the national technological priorities, would be expected to harmonise and converge all technology transfer, adaptation and development activities of the country.\textsuperscript{12} Equally important is that the STC would be responsible for correcting and improving the national rules relating to the transfer and development of technology\textsuperscript{13} as well as the organizational structure of the country’s technology.\textsuperscript{14} Further, the STC monitors the transfer of foreign technology to the country\textsuperscript{15} and determines the priorities of foreign investments for national technological needs.\textsuperscript{16} The STC is also responsible for encouraging the private sector to invest more in the transfer and development of technology.\textsuperscript{17} The creation of a suitable environment for local innovative activities is another function of the STC.\textsuperscript{18} Finally, the STC acts as a forum for achieving coordination between R&D centres and the industrial sector.\textsuperscript{19}

In the light of the situation in Iran and the close relationship which the functions of the STC would have with the proposed IBTPT, it is believed that the latter should be governed by the STC. In fact, the IBTPT with the administrative arrangement that is proposed by this thesis, would act as the executive arm of the STC. Having close and structural links with the STC, the IBTPT would be aware of the technology and investment priorities of the country and would then facilitate an

\textsuperscript{11} See Appendix One, Art. 2(a). The Appendix contains the proposed functions and composition of the STC provided on the basis of the First Socio-Economic and Cultural Plan of Iran and different sources mentioned in notes 2 and 10.

\textsuperscript{12} See supra, Chapter Two, pp. 34-36.

\textsuperscript{13} See Appendix One, Art. 2(d).

\textsuperscript{14} Ibid.

\textsuperscript{15} Ibid, Art. 2(e).

\textsuperscript{16} Ibid, Art. 2(f).

\textsuperscript{17} Ibid, Art. 2(g).

\textsuperscript{18} Ibid, Art. 2(c).

\textsuperscript{19} Ibid, Art. 2(b).
ideal environment for the acquisition of those technologies that are needed but are not available in the country. While the STC itself would concentrate on the development of local technology, the IBTPT would focus on the transfer and promotion of required foreign technology. The ultimate goal of the STC and IBTPT, however, would be the building of a sound technological base in the country.

(b) Nature of the IBTPT

The IBTPT would be a body corporate with perpetual succession and the power to sue and to be sued. The President shall appoint a Director General for the Board who would be a person experienced and specialized in industrial property, competition and transfer of technology matters. The Director General would be appointed for a period of four years.

(c) Main Functions of IBTPT

Through the IBTPT, the government would institute incentive structures to promote innovative activities and to reward risk-takers; implement the STC policies regarding the transfer and promotion of technology; introduce acceptable criteria for the technology agreements such as their effects on environment, export and use of national sources; and control and eliminate excessive and harmful restrictive business practices. In doing this, and so as to contribute to the technological base of the country, the IBTPT would have the following functions:

20 It should be remembered that the development of indigenous technology covers a wide range of planning and training programs and coordinated actions of different authorities, while the transfer and promotion of technology is a part of national technological development and has a narrower scope.

21 Appendix Two, Articles 1-5.

22 The lesson learned from those countries that have made significant technological and industrial progress is that government has an essential role in providing national setting which supports technology-based developments at the firm, industry and national level. See supra, Chapter Two, pp. 40-41.
(a) administering the law relating to patent rights to ensure rapid and coordinated development of patent rights and their effective application;

(b) granting of patents, utility model, and innovation certificates;

(c) establishment and maintenance of an Industrial Property Documentation Unit for the public in general and for research institutions in particular;

(d) registering of agreements for the transfer of foreign technology to Iranian parties and ensuring the best contractual terms and conditions for Iranian parties entering into such contracts;

(e) encouraging a more efficient process of identifying and selecting foreign technology and developing the negotiating skills of Iranians;

(f) providing a more efficient process for the adaptation of imported technology;

(g) monitoring, on a continuous basis, of the execution of any contract registered pursuant to the Law;

(h) removing obstacles to the absorption and dissemination of technology, through measures to prevent the incorporation of implicit or explicit contractual restrictions in contracts for transfer of technology;

(i) promoting competition in the market for goods and services.

(j) obtaining, analyzing and providing technological and related economic and commercial information;

(k) formulating such policy as may be necessary to carry out the other functions of the IBTPT as may be conferred by the Law;
(l) recommending the desirability of signing, ratifying or withdrawing from international conventions and agreements on industrial property, competition and the transfer of technology.\textsuperscript{23}

(d) Authority of the IBTPT

For the achievement of the above objectives, while there should be a political commitment regarding the effective acquisition, adaptation and diffusion of foreign technology,\textsuperscript{24} the IBTPT would have to be politically independent and vested with sufficient authority.\textsuperscript{25} Otherwise, it would be a passive organisation and inadequate to make any serious improvement in the technological development process. Although, under the Constitution of Iran\textsuperscript{26}, the President and the Council of Ministers have the powers to enact the required legislation to establish the Board without referring to the Iranian Parliament, the thesis recommends that the proposed law be enacted by the whole Parliament in session so that all political factions can be involved in this sweeping exercise.

The IBTPT Director-General would report to the STC and would have overall responsibility for the Patent, Transfer of Technology, and Protection of Competition Offices whose Directors would undertake the day to day functions of their respective offices.\textsuperscript{27}

\textsuperscript{23} Article 6.

\textsuperscript{24} Nasirzadeh & Ghasemzadeh, op. cit., note 9, p. 47; Moatamedi, op. cit., note 4; United nations, Economic and Social Commission for Asia and the Pacific, \textit{Meeting of Ministers of Industry and Technology}, 23-29 June 1992, Teheran, p. 175.

\textsuperscript{25} Article 8.


\textsuperscript{27} Article 5. It should be noted that the President would be the head of the STC. See App. One, Article 3.
It is predictable that such an all-embracing legislation would be followed by a considerable amount of subsidiary legislation to deal with detailed matters of practice and procedure. Accordingly, it is necessary that for the exercise of his authority the Director-General be empowered to issue rules and regulations to govern the operations of the three Offices and to implement policies and guidelines relating to technology transfer, industrial property rights, and monopolies and restrictive agreements and arrangements. He would prescribe the forms and returns and other information and make all necessary inquiries, undertake all studies, publish reports and provide information to the public.

(e) Organisation

In the light of the above functions, as a necessary institutional arrangement, the principal role of the EBTPT would be the management and the coordination of the work of its three operations Offices: the Patent, Transfer of Technology, and Protection of Competition Offices, in such a way as to assist the country in achieving its technological goals. Such a setting would make for better coordination and effectiveness than achieved by the present system in developing countries where there are three different offices, each supervised by different ministries. (Appendix Four)

(i) Patent Office

The Patent Office would be responsible for the grant of patents of all kind in the country. Properly designed patents would encourage inventive and innovative activities on the part of local and foreign nationals to build a local technological base by assuring satisfactory returns on their technological investments. The Patent Office, while having substantially the same powers as the existing patent office, goes further and establishes, for the first time, structural links with the institutions that handle the allied subjects of transfer of technology and antitrust. The proposed patent law

28 Article 17.
29 Ibid.
provides more opportunity for the protection of local innovative activities, while it satisfies the Paris Convention and the TRIPS requirements as well.\textsuperscript{30}

A patent grant, however, would not be made if there were an objection from either of the other two offices which would have to be informed of all intended grants. The patent grant might then be modified or refused altogether if so agreed with the office that object to the grant.\textsuperscript{31} Where there were no agreement with the office that object to the grant, the Patent Office could request the intervention of the IBTPT Director-General who would ultimately decide the unresolved issues regarding the particular grant in contention.\textsuperscript{32} Thus, there would be a compulsory review of all intended patent grants by the Transfer of Technology Office and the Protection of Competition Office. This process would enable these two offices to record those granted patents in the country as well and take them into account in the fulfilment of their relevant functions.\textsuperscript{33}

\textsuperscript{30} The TRIPS Agreement also allows member states to devise patent laws that exceed the requirements of prevailing international minimum standards. See TRIPS Agreement, Article 1(1). This privilege is used by the proposed patent law to provide special incentives through untraditional patents to encourage private investment in sectors targeted for rapid development. See infra, Part Two.

\textsuperscript{31} Needless to say that the Patent Office and other offices would fulfil their functions as the law requires and with the strict observance of relevant international conventions and arrangements that Iran has signed them. Accordingly, those patents granted based on the national and international laws would not be rejected or modified by the other two offices. Of course, if a granted patent were misused or were not worked properly in the country, the other offices could request for the rejection or modification of the patent.

\textsuperscript{32} Article 21.

\textsuperscript{33} For instance, the Transfer of Technology Office would be aware of all available patented technologies in the country, thus, it would direct and encourage interested local enterprises to work those patented technologies through licensing, and discourage importation of similar technology to the country.
(ii) **Transfer of Technology Office**

The Transfer of Technology Office would be responsible for the registration, recording and monitoring of transfer of technology agreements which would, however, be subject to the scrutiny of the Patent Office and the Protection of Competition Office in the same way as patent grants.\(^\text{34}\)

(iii) **The Protection of Competition Office**

The imposition and incorporation of restrictive practices does not always arise through the pressure and bargaining power of technology suppliers. A considerable number of these practices are imposed because there is no particular law and organisation to observe the transfer of technology agreements. Accordingly, the Protection of Competition Office of the IBTPT would be responsible for:

- identifying, control and eliminating restrictive clauses of transfer of technology agreements;
- ensuring competition in the market for goods and services;
- taking action as necessary to prevent undertakings from behaving in manners that distort competition and from abusing a dominant position in the market;

The above mentioned tasks, however, would be fulfilled in the context of the overall technology plan and its objectives as to the transfer and promotion of technology, and not competition *per se*. Such actions would not be taken until after consultations with the other two offices which could object if they so chose, in which case, the IBTPT Director-General would intervene to resolve the dispute with the Protection of Competition Office. His decisions would be binding on the three offices in all matters.\(^\text{35}\)

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34 See Part III of the Appendix Two.

35 Ibid, Part IV.
(iv) Techno-economic Information Centre

The Techno-economic Information Centre would be associated with the Transfer of Technology Office to maintain continuously updated indexes of suppliers of technology and technology-related market information. This Centre would collect and maintain statistical data on the acquisition of foreign technology and development of indigenous technology and analyze technological and related economic and commercial information for the use of the public.\(^\text{36}\)

(v) IBTPT Tribunal

In Iran, industrial property cases have not been satisfactorily handled for various reasons. In order to ensure effective operation of industrial property cases as well as transfer of technology and competition cases, and for a better integration of the offices, an IBTPT Tribunal is proposed, hereafter named the Tribunal, presided over by the Directors and Assistant Directors of the IBTPT.\(^\text{37}\) It would be part of the duties of the Directors and Assistant Directors of the IBTPT to sit upon the Tribunal when disputes arising from the decisions of the three offices needed to be heard and determined.\(^\text{38}\)

These Directors and Assistant Directors, in particular, should provide a valuable field of experienced legal practitioners for appointment to the Teheran Court which would have the exclusive jurisdiction in industrial property, transfer of technology, and competition cases.

\(^{36}\) Article 10.

\(^{37}\) Article 11.

\(^{38}\) It should be noted that the Director General, or his/her Assistant, on the basis of each case, would decide the composition of the Tribunal, such that, for instance, disputes arising from decisions of the Patent Office would be heard and resolved by the Directors or Assistant Directors of the other two offices. Needless to say such a procedure would be in respect of the objections received from outside the IBTDT. The internal unresolved objections of the offices, as mentioned above, would be settled by the Director General.
technology and competition matters. Appeals as against the Tribunal’s decision would be directed to the Teheran Court.\textsuperscript{39}

(vi) Industrial Property Documentation Unit

For a developing country like Iran, the surest hope of technological development lies, to a great extent, in adapting existing technology and inventions. This is hardly possible if potential researchers and investors are not aware of existing inventions in any particular area at a given time.

It was observed by the present writer that few Iranian researchers and fewer Iranian research centres are aware that there are more than 4,000,000 patent records of foreign inventions in the information centre of the Ministry of Jahad Sazandegi and are accessible to the public.

Accordingly, to make the Patent Office a working instrument for transfer, development and diffusion of technological knowledge, apart from its integration into the IBTPT, an Industrial Property Documentation Unit (IPDU) would be established to provide patent information in a way that would facilitate the transfer of technology and enable enterprises and R&D institutions to develop endogenous technology. In doing so, the IPDU would maintain records of local inventive efforts as well as current world patent specifications in different fields of technology on a continuous basis.\textsuperscript{40}

\textsuperscript{39} Article 12.
\textsuperscript{40} Article 16.
The Offices would have their own register. The registers would at all convenient times be open to the inspection of the public, subject to such rules as were prescribed by the IBTPT.

III. Further Practical Issues for the IBTPT

Different questions may still arise as to the way IBTPT would work and implement its proposed functions.

A. Technology and Investment Priorities

A question may be how the IBTPT would work, given the technology and investment priorities of the country.

As was noticed above, IBTPT would be an executive arm of the STC. Luckily enough, the Government has been requested to provide a 25 year development plan for the country, which has been named "Iran of 1400". The technology plan of "Iran of 1400" would be an integral part of the overall plan. The STC would formulate and prepare the main lines of the country’s technology development plan. For the next 25 years of Iran’s history, therefore, the STC would introduce the technology and

41 Article 13.
42 Article 15.
43 The interview of the head of Planning and Budget Organization of Iran, April 1996, Teheran Newspapers.
44 See Appendix One, Art. 2(a).
investment priorities for the country. Further, on the basis of the country’s scientific and technological capabilities, the STC would specify those technologies that could be developed locally and those which should be acquired from other countries. This would give a clear vision and insight to the relevant institutions particularly to the IBTPT as to its functions and actions regarding the transfer and promotion of needed technologies.

Being structurally linked to and members of the STC, the Director General and Directors of the IBTPT would be informed of the country’s technology goals and priorities, and would discharge their functions on the basis of those priorities. This position would facilitate the decision-making process of the offices as to the transfer and development of technology agreements as well. Equally important is that, in such circumstances, the IBTPT would be able to be flexible enough to authorise those prioritised technology transfer agreements although they, for instance, include some restrictive clauses. Among its priorities the IBTPT would be concerned with the issue of foreign investment, discussed more fully in Section IV below.

B. Effective Integration of the Offices

Another possible question: how would the three proposed offices be effectively integrated? To answer this question it is worthwhile here to emphasise that these three offices are intended to handle three indispensable aspects of the transfer and promotion of technology. In other words, they have common ground and common objective. The supervision of these three offices by a single agency would provide effective integration of the offices. However, the system would have other particular involvements that would bring about further effective integration of those offices. Some points in this regard deserve to be mentioned here:

(a) As previously stated, the three offices are structurally linked. Each would be aware of the other two offices’ activities and decisions, and equally important, each would
have opportunity to raise its objection when necessary. In this regard, the proposed law requires that each office, before making any final decision, must inform the other offices of the intended decision.

The IBTPT would be well advised to take appropriate measures to make this procedure as short as possible. For instance, the Director General would prepare a special form to be used by the offices for obtaining any comments or objections of the others. The form would contain a clause that requires the requested offices to reply within a specific period of time. No subsequent reply from the requested offices would mean no objection.

b) As proposed by the thesis, the IBTPT Tribunal would be a forum in which the Directors and Assistant Directors would be involved in resolving disputes raised by third parties against decisions of the offices;

c) The Directors and Assistant Directors of the IBTPT would have regular Board meeting with the General Director twice a month. The Board meetings would be a suitable forum for establishing of effective coordination and integration;

d) the Director General would receive the offices’ day-to-day work reports and supervise their operations specifically with a view to achieving greater efficiency and integration;

e) The Directors of the Offices are members of the STC as well, so their awareness of the technology policies and objectives and the needs of the country would enable them to work towards the achievement of those objectives;
f) The work undertaken by each office would affect the other offices. Patents granted by the Patent Office, for instance, require that the Transfer of Technology and Competition Offices to follow up their effective utilization in the country. 45

C. Settlement of Conflicts Between the Offices

The question arises as to how conflicts from the parallel enforcement of patent, transfer of technology, and competition laws by the relevant offices would be settled.

It should be noted that although the Protection of Competition Rules of the IBTPT condemn restraints of trade and declares such practices unlawful, and the Transfer of Technology Rules condemn the static aspect of exclusive rights, the rules recognize the existence of intellectual property rights and the law governing those rights as a partner in meeting common economic and technological objectives. Such a coexistence, however, will only be possible and beneficial if the exclusive rights are utilized for the original and basic purposes of patent law - namely, to promote innovation and transfer of technology, encourage the society to become more creative, reward the owner for the time, effort and investment he puts into technology which eventually benefits the country's economy - and do not go beyond these purposes or otherwise abused.

There are, however, circumstances in which conflicts may arise between the proposed offices. For instance, a transfer of technology agreement that violates or limits the rights conferred to a patentee operating within the country may cause conflict between the Patent and Transfer of Technology Offices. Likewise, a conflict may arise between the Patent and Transfer of Technology Offices when a patentee

45 The Transfer of Technology Office should take the granted patents into account in different ways: the period of technology licensing agreements should not exceed the term of the concerned patents; the office should not register those agreements that may violate a right granted by the Patent Office; the office should facilitate the working of those useful patents in the country by giving required incentives, etc. The Competition Office also should prevent misuse of the granted rights.
does not disclose required information of the invention. Further, the registration of a transfer of technology contract that contains excessive clauses may raise disputes between the Competition and Transfer of Technology Offices.\textsuperscript{46}

The new structural link that is recommended to be established between the patent, transfer of technology and competition laws in Iran, on one hand, would assure the effective implementation of the laws, and on the other hand would minimise possible conflict between them. As has been noted, the offices would have opportunity to review the works of other offices. Through such a process, potential conflict may be settled amicably by the offices. Failing this, the conflict would be resolved by the Director General.

The question to be answered here is on what principles the conflicts may be resolved. It is submitted that the Director General, first, should examine whether the offices have implemented the related national law (rule of law). The second step to be taken by him/her is to establish whether the offices have violated the country’s international obligations. When the Director General finds that the offices have complied with the above principles, but the conflict still remains, he/she has to resort to the main principle on which the conflicts between the offices could be resolved: the so called "development test principle".

According to the development test principle, the country’s technological and industrial development should be the criterion for resolving disputes. This principle requires, for instance, that a technology transfer contract that contains a restraint of trade whose nature resulting in a conflict between the Competition and the Transfer of Technology Offices may be regarded as legal and authorised by the Director General, on the ground that such a contract, despite its restrictions, is beneficial to the

\textsuperscript{46} There might be other conflicts such as registration of those transfer of technology agreements in which the transferee is restricted excessively or is authorised to impose excessive clauses; when the Competition Office registers agreements and arrangements which may conflict with the Transfer of Technology Office’s objectives.
The principle is in conformity with the TRIPS Agreement as well.

This unique administrative arrangement, therefore, would provide a suitable forum for the General Director and the Directors of the IBTPT to deal with the conflicts and overlaps on a routine basis. For the first time in a developing country such a forum would be established to resolve issues raised by conflicts between competition rules and transfer of technology objectives.

III. Foreign Investment and the IBTPT

The current Iranian foreign investment law, another vehicle for transfer and development of technology, has been seen to be controversial and, since the time of the revolution, has no significance because foreign investments particularly in the

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47 Certain practices, in a transfer of technology contract, such as the use of local natural resources, the adaptation of technology transferred to local conditions, and research for latter purpose might also satisfy the Director General to authorise the contract and resolve the conflict between the offices.

48 According to the TRIPS Agreement, Members are allowed to adopt measures "to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology". See Article 8. See TRIPS Agreement, Articles 8 and 40.

49 It should be recalled that the IBTPT Tribunal shall deal with complaints and objections of persons firms and companies, local or foreign, as to the offices' decisions.

50 Although in some countries there are many precedents existing for resolving the conflicts between industrial property rights and competition rules, none exist to resolve issues raised by conflicts between competition rules and transfer of technology objectives.

51 Chapter Eight, particularly the legal environment of foreign investment after the fall of Shah.
industrial sector have become a trickle. An important question, therefore, is whether the recommended Law would facilitate foreign investment in Iran.

The experience of Iran indicates that having an encouraging foreign investment law does not necessarily lead to the transfer and development of foreign technology.\textsuperscript{52} However, although direct foreign investment flows are explained usually by a variety of reasons, it is apparent that the mere existence of a regulatory framework for transfer and development of technology does not affect those flows and may even facilitate them as follows:

The proposed Development of Technology Law recognizes the present Law Concerning the Attraction and Protection of Foreign Investment in Iran: thus, the foreign capital investment as well as profits will have legal protection.\textsuperscript{53} All rights, exemptions, facilities accorded to domestic capital and private enterprises also will apply to foreign capital and firms.\textsuperscript{54} The repatriation of the profits and capital derived from the investment in the same currency as originally imported is also guaranteed.\textsuperscript{55}

The patent rules proposed in this thesis would provide more legal certainty and security for investment in Iran with a view to facilitating transfer of technology and stimulating R&D activities. The rules contain numerous elements which, following the mainstream of trends in patent protection, substantially changed the previous legislation on the subject. For example, the scope of patentability includes all processes and products, including chemicals, alloys, pharmaceutical and biotechnology, while the term of protection would be 20 years.\textsuperscript{56}

\textsuperscript{52} Ibid.
\textsuperscript{53} Ibid, the Iranian Law of Investment, Article 1.
\textsuperscript{54} Ibid, Article 3.
\textsuperscript{55} Ibid., Article 4.
\textsuperscript{56} The World Bank has recently concluded that the current outdated Iranian patent law is a deterrence to foreign investment in Iran. See op. cit., note 1.
The Law proposed here would introduce a predictable and effective licensing system for the first time in Iran with a view to commercialising new technology in the country; thus, foreign technology suppliers would be encouraged to invest in the country, through technology licensing agreements. Given the importance of licensing agreements to actual working of new technology in the country\(^{57}\), the Law would provide circumstances in which interests of the licensor, licensee and the country are all adequately secured.

The Law mandates the provision of trade secret protection in the country for the first time. Such protection should therefore stimulate local innovation besides facilitating various forms of foreign investment\(^{58}\).

The direct protection of innovations in a way that would be introduced by the IBTPT would provide the right incentives to the private sector, national or foreign, to invest in innovative and technological activities and apply the results to the manufacturing of products competitive in the domestic and world markets\(^{59}\).

The proposed competition rules contain special exceptions under which some restrictive clauses and practices might be acceptable when they are in the national interest or contribute to progress in the economic and technological development of the country\(^{60}\).

The STC and IBTPT would act as appropriate and meaningful forums for determining and implementing the priorities of foreign investments for national

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\(^{57}\) See *supra*, Chapter Seven, notes 2 and 3.

\(^{58}\) See Part II of the Appendix Two, Article 69 (c).

\(^{59}\) The Innovation Certificate would be an effective vehicle for industrial investment since it would encourage joint investment of foreign and national enterprises for commercialization of useful and unpatented technologies for the first time in the country. *See supra*, Chapter Nine.

\(^{60}\) Article 86.
technological needs, thus, necessary coordination would be created between the relevant national organizations to facilitate the required foreign investment.\textsuperscript{61}

Accordingly, it is believed that the proposed Development of Technology Law would minimise the non-commercial risks of investing of foreign corporation in the country and concede their preferences to some degree so long as technology were transferred on terms which benefit the country. In doing so, the Law requires that the Transfer of Technology Office maintain a register of all foreign investments because of their connection with the ownership and exercise of industrial property rights and because of their potential for conflict with the competition rules and transfer of technology rules.\textsuperscript{62} The current Organization for Investment, Economic and Technical Assistance of Iran, thus, would fulfil its obligations regarding the foreign investors who their applications are registered by the IBTPT.

\textsuperscript{61} It should be borne in mind that the current foreign investment law of Iran is attached to the Ministry of economy and finance whose Minister shall be a member of the STC. This shall provide required coordination between the STC, IBTPT and the Organization for the attraction of foreign investment. See App. One Article 3.

\textsuperscript{62} See infra, Part Three.
II. Part Two: Patent Grants

Part Two of the proposed law establishes a substantially revised version of the existing Iranian patent system, a system which is out-dated and out of step with the social, economic and industrial developments in the country. Fundamental changes in the existing law have been recommended to make the Iranian patent system an industrial development-driven system which is capable of effectively implementing policies for national technology development. Many provisions in the proposed law are virtually new and others represent significant revisions of the existing law aimed at clarifying obscure provisions in the old law. Equally important is that the proposed patent law is in conformity with the new standards provided by the TRIPS Agreement.

(a) Criteria of Patentability

The proposed law introduces three requirements for patentability of inventions, namely industrial application, novelty and inventive step. The existing Iranian patent law provides for the first and second requirements but only in a round about manner. However, there is no stipulation in the old law as to inventiveness which could actually give an advantage to local inventors if other amendments are made to the law

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63 For more details see supra, Chapter Nine.

64 As was considered earlier, although the TRIPS Agreement has provided more stringent standards for the patent protection, it has established enhanced disclosure and patentability requirements, and it has to be enforced in such a way "to contribute to the promotion of technological innovation and to the transfer and dissemination of technology." See Article 7 of the TRIPS Agreement. Accordingly, although Iran is not yet a member of the WTO, the proposed patent law shall respect foreign new technological inventions and take into account the TRIPS requirements. See supra, Chapter Four.

65 Articles 23-26.
to clarify the status of many ideas which cannot properly be fitted into the definition of inventiveness. More importantly, the requirement of universal novelty required by the current law would negate any advantage derived from the requirement of inventiveness and the lower standards of originality.

Therefore, the proposed draft of the new law, while adding inventiveness as a criterion for the award of a patent also gives precise and explicit definitions of the term inventiveness. This would help the understanding of the law and ease its application for people as well as for the competent office. On the other hand, in Iran, inventions which are new and industrially applicable but are obviously deducible from the state of the art by a person skilled in the relevant art would no longer secure exclusive rights.

There has been great concern among those who wished to have their inventions patented in Iran about the timing of the disclosure of their inventions. Applicants for patents were uncertain if the disclosure of their inventions by a third party who had obtained the information directly or indirectly from the inventor during the preliminary proceedings for registration by the Patent Office would invalidate the novelty of the inventions. The proposed draft law would put an end to the obscurity of the current law and related regulations in this regard. The new law would allow a grace period of 12 months to patent applicants during which time any disclosure by parties other than the patent applicant would be ignored and not affect the patentability of the invention.66

66 Article 27.
(b) Restriction on Subject Matter

The existing uncertainty in the eventual success of a patent application has in Iran contributed to a lack of interest in investment in research and development and, in many cases, has led to litigation in the courts. The proposed draft of the new rules governing patent grants is expected to overcome these problems and encourage local as well as foreign inventors to seek patent grants with greater confidence than hitherto. Prospective patent applicants would know exactly what categories of inventions would be excluded from patent grants in Iran.\(^{67}\)

(c) Contents of the Description and Claims

The thesis has shown that the current Iranian patent law has also failed in respect of the disclosure of information requirements under the law. Disclosure facilitates the wide dissemination of the working of the patented product or process and serves as a vehicle for the transfer of technology for further development within Iran. Otherwise, developing countries are constantly faced with having re-invent the wheel, so to speak, in order to build their industries.

The proposed draft law, therefore, sets out in detail all the necessary requirements to satisfy the disclosure condition in the law.\(^{68}\) An applicant is required by the draft law to describe correctly and fully the invention and its operation or use as contemplated by the inventor. The applicant must set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which

\(^{67}\) Article 32.

\(^{68}\) Article 27.
it is most closely connected, to make, construct, compound or use it. In the case of a machine, the applicant must explain the principle thereof and the best mode in which he has contemplated the application of the principle. Such an "enablement" requirement has long been applied by the patent law of the United States and recently by the TRIPS.69

In the case of a process, the applicant has to explain the necessary sequence, if any, of the various steps, so as to distinguish the invention from other inventions. He has, in particular, to indicate and claim unequivocally the part, improvement or combination that he claims as his invention. The specification should be supported by a claim or claims stating unambiguously and in explicit terms the things or combinations that the applicant regards as new and in which he claims an exclusive property or privilege.70 The execution of the above mentioned requirements would make the Iranian patent system a valuable source of technological information.

(d) Examination of Application

One of the main functions of the patent law which is aimed at affording protection to patentees is to lend certainty and stability so that patentees can exploit their patents commercially with the secure feeling that under the law they have acquired distinct property rights. Unfortunately, under the current patent law, patents are granted upon mere registration and at the risk of the patentee and without any guarantee as to the validity of the patents. Such a shaky and vulnerable protection afforded by the law does not encourage the transfer and promotion of needed technology. The advancement of information technology and facilities rendered by some international

69 Members shall require that an applicant for a patent "to indicate the best mode for carrying out the invention known to the inventor at the filing date." See Article 29(1) of the TRIPS Agreement.

70 Article 29.
organisations and conventions have made the comprehensive examination of applications feasible and the prospects more promising. At the same time, one can see a demand for considerable number of educated and skilled manpower to be employed in examining patent applications. The Organization of Scientific and Industrial Research in Iran has such a capability and has already expressed its agreement with the present author to implement such a procedure in Iran.\footnote{Interview in Teheran by the Author with Messrs Bitarafan, Salehi and Nourozi, from OSIRI, January 19, 1995.}

The proposed draft patent law is aimed at establishing a comprehensive search procedure in the country\footnote{Article 30.}. The Patent Office, therefore, at the request of the applicant or of another person or \textit{sua sponte} would carry out a full examination of the application for an invention to ensure that it meets the conditions for granting a patent as laid down by this law\footnote{Ibid.}. In this regard, the thesis recommends that Iran should join the Patent Cooperation Treaty (PCT), in view of the advantages set out above\footnote{See supra, Chapter 9, p. 260.}.

\textbf{(f) Contents of the Exclusive Right in an Invention}

The proposed law enumerates the rights which are conferred on a patentee\footnote{Article 31.}. The patentee would have exclusive right in his invention comprising the making, and offering for sale the patented goods and putting on the market the subject matter of the invention, the intended use of the subject matter as well as the application of the patented method. The draft law, however, lists occasions that using patented inventions...
by others would not be illegal.\(^\text{76}\) This provision is new to Iran and enables knowledge of the patent and its working to be embedded in the local technological base through utilization in experimental work, research and other non-commercial purposes. Accordingly, the proposed law contains a provision to the effect that a patent would not be extended to: use of the patented invention for non-commercial purposes reflecting private needs, where such use does not cause significant material prejudice to the owner of the patent; use of the invention for experimental or research and development purposes relating to the subject matter of the patented invention; extemporaneous preparation for individual cases in a pharmacy of a medicine in accordance with a medical prescription; use of a product covered by the patent after the product has been lawfully acquired under a license giving "the right of use of the subject invention, totally or in part, and in any manner."\(^\text{77}\)

As was discussed above, the undefined exclusive right of patent grants has led to patentees bypassing the law by imposing restrictive and harmful clauses in the transfer of technology agreements. Although the whole problem of restrictive and anti-competitive practices would be dealt with by the Competition Office, considerable collaboration must take place between the three offices of IBTPT on a day-to-day basis to protect the interest of the local economy.

Thus, the proposed law invalidates any clause in a licensing contract which derogates from the rights under the new law.\(^\text{78}\)

\(^{76}\) Article 32.
\(^{77}\) Ibid.
\(^{78}\) Article 40.
(e) Licensing and the Transfer of Rights

The patent provisions in the broader law proposed in this thesis are intended to provide an appropriate legal framework for technology licensing agreements. Given the importance of licensing contracts to actual working of new technology in the country, the legal framework should provide circumstances in which interests of the licensor, licensee and the country are all adequately secured. With these objectives in mind, the draft law has stipulated some rights and responsibilities of patentees in the framework of the Patent regulations.\(^7^9\) As will be seen later, the draft law in terms of transfer of technology agreements also attempts to strike an equitable balance between licensor, licensee and the society.

(f) Non-voluntary Licences

For the control and prevention of abusive use of patent monopolies, the so-called "built-in safeguards" is introduced for the first time by the proposed patent law.\(^8^0\) The non-working problem of patented technology which is a common practice among patent holders can be discouraged by some form of compulsory or non-voluntary licences. In passing, it should be said that the compulsory licensing scheme under the proposed law is not in contravention of the Paris Convention and the TRIPS Agreement.\(^8^1\)

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79 Articles 33-37.
80 Article 42.
81 Under the TRIPS Agreement, as it was under Article 5A of the Paris Convention, the standard form of remedial action remains compulsory licensing, subject to some limitations that Article 31 of the TRIPS has introduced. In principle, both the public-interest exception and measures to prevent abuse, respectively stipulated in Articles 8(1) and 8(2) of the TRIPS, would justify resort to compulsory licensing. See supra, Chapter Four, p. 117.
(g) **Working of Patented Technology**

Although the existing law provides for invalidation of a patent if it has not been worked for a period of 5 years, it has not been effective because of the absence of a definition of the term "working of a patent". The provision in the law requiring sufficiency of information in an application for a patent is also obscure and, in any case, has not been enforced in practice. The proposed draft of the law strengthens both provisions by adding new provisions regarding the working of patented technology and patent disclosure. A patent grant may be revoked by court decision if the description attached to the patent is insufficient to enable a person skilled in the art to carry out the invention, the invention is not patentable in accordance with the provisions of this law and the patent has not been effectively worked for a period of four years after the grant. Article 31 of the TRIPS Agreement allows member states to impose compulsory licenses when, despite negotiations with the rights holders, the latter have failed to license the patented technology "on reasonable commercial terms and conditions."

(i) **Utility Model Certificate**

Iran by adopting a hybrid legal regime would modify the incentive structures of current patent system along the lines of historical models that many industrialised countries favoured at earlier stages of their economic development. The Paris Convention and the TRIPS Agreement have validated such devices as well.

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82. Iranian patent law, Article 37 (4).

83. Ibid.

84. Article 46-47.
Accordingly, the proposed law provides for the grant of a utility model certificate for any novel and industrially applicable three-dimensional object with a particular design and form, such as a tool, an instrument, a device, an apparatus, or part thereof, proposed as novel and industrially applicable and capable of providing a solution to a technical problem. If the application for a utility model relates to a three-dimension object and complies with the requirement of the proposed law and its regulations, the Patent Office would grant a utility model certificate without prior examination of the novelty and industrial applicability of the utility model at the risk of the applicant. The term of a utility model certificate would be seven years from the day following the filing date of the application. In all other aspects, the corresponding provision of Part One of the new law would apply, *mutatis mutandis*, to utility model certificates.

(j) Certification of Local Innovations

The introduction of some sort of certification of local innovations of existing technology is long over due. The proposed draft law provides for the issue of innovation certificates under conditions that are expected to encourage their exploitation within Iranian territory. The new Patent Office would have the primary responsibility to administer such certification.

In this part of the proposed law the patent principle is adapted to provide a new legal tool suited to Iran's economic and industrial position. This new legal tool is the innovation certificate which is aimed at extending the principle of protection of inventive ideas (inventions) *per se* to the protection of the commercial exploitation of innovative ideas (innovations).

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85 Articles 48-52.
86 Ibid.
87 Articles 53-59.
An innovation certificate, therefore, may be granted to any firms, whether foreigners or nationals, for their genuine endeavour to manufacture a new product or a product with a new feature which falls short of the absolute standard of novelty for a patent grant but which is not available in the ordinary course of trade from indigenous manufacture of the product in Iran at the time of making the application for protection. This definition shows that unlike conventional patents, innovation certificate protects more the structure of the market for the innovative product rather than the idea behind it.

(i) Requirements for Innovation Certification

A. Relative novelty: innovative object should be new in Iran.88

The thesis has already examined89 the merits of relative novelty requirement for developing economies like Iran.90 It is suffice to say here that from almost one million patents granted worldwide annually, a bulk of them has never been introduce and worked in developing countries. Understandably, it may not be practical to patent and commercialise those new technologies in all countries. They also lose their absolute novelty after the lapse of priority period (12 months). In other words, they are not novel absolutely, so they are not patentable under the patent system of Iran which requires absolute novelty. Therefore, there is no legal protection for an Iranian firm to invest and commercialise those technologies independently or jointly with the technology holder. This situation is aggravated if the import policy of the country does not take into account the legitimate interests of the indigenous manufacturers.

In sum, absolute novelty discourages local industrial investment for the acquisition and development of those valuable technologies that are new in the country but not worldwide. By contrast, the relative novelty in the context of innovation

88 Ibid.
89 See supra, Chapter Nine, p. 238.
90 Ibid.
certificates would encourage investments for the introduction and working of technologies required for the production of local manufactures or provision of services.

B. The innovative product should not be available in the ordinary course of trade from indigenous production

This requirement dictates that the availability of a product which has been imported to Iran would not disqualify the grant of an innovation certificate. In other words, given the importance of the actual working of patented and unpatented technologies in the country, what is vital is the local production of the innovative products. This would complement the import substitution industrialisation programme of Iran without raising the specter of overprotection of inefficient local industries.  

(ii) Grant

When a new product is granted an innovation certificate, the product is protected by the law in favour of the holder of the innovation certificate for a prescribed period.

(iii) Infringement

Infringement of such monopoly rights, thus, takes place when any attempt is made to diminish the value of the innovation to which the innovation certificate relates.

(iv) Term of Protection

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The period of the protection would be varied and decided by the Patent Office on a case by case basis taking into account such matters as the innovating firm, the market for the particular product and the manufacturing plans.92

III. Part Three: Registration and Monitoring of Transfer of Technology Contracts

(a) Registering, Recording and Monitoring of Technology and Industrial Property Licensing Agreements and Arrangements and Foreign Investments

The registration of all agreements and arrangements involving the procurement of technology and know-how from foreign sources such as patent licensing agreements and technical assistance contracts would be mandatory under the legislation proposed in the thesis.93 Such a requirement would enable the Transfer of Technology Office to collect detailed information on all such agreements and arrangements which can then be monitored as they are implemented for an evaluation to be made of their impact on the growth of a technological base in Iran. A fund of recorded experience is expected to be accumulated by the Transfer of Technology Office which would make it available to the public and enable that office to offer assistance to local and foreign investors in their negotiations to reach agreement on technology and know-how issues.

Through such interaction between the Transfer of Technology Office and investors it may be possible to maintain an adequate data base and would also help in identifying those arrangements which yield the highest returns to the local economy.

92 Article 53-59.
93 Articles 60-61.
The systematic registration and analysis and assessment of all technology dealings will be a rich source of information to those engaged in research and development, including public and private agencies, who will as a result be in a better position to plan and program their own activities.

(b) Registrable Agreements

A feature of the proposed law is the inclusion of a list of transfer of technology agreements that are registrable provided they are approved by the Transfer of Technology Office. Such approval cannot be refused except as provided under the law. The law also contains a list of agreements that would not be subject to obligatory registration.94

The office should have a special form regarding registration of technology transfer agreements. Accordingly the proposed law requires that the procedure for preparing, drafting and making available such a special form would be laid down by decision of the Director General.95

(c) Evaluation Criteria

The evaluation and registration of transfer of technology agreements under the new law would include consideration of technical, economic, financial and legal issues of these transactions.96 The question arises as to which aspect of technology control would reign supreme? What is important is that no arrangement or agreement between

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94 Article 62.
95 Article 17.
96 Articles 70.
foreign investors and local interests (public or private) would impede local technological development and would block the flow of technology into the country. However, the overall decision of approval of any arrangement or agreement would be on the case by case basis.  

(d) **Parties to Transactions**

Some developing countries have focused their laws on agreements involving private parties only but the state and state agencies are actively involved in Iran. Some technology suppliers can be local enterprises owned by foreign nationals. The proposed law, then, would apply to:

- transactions between private parties (natural and juristic), at least one party being resident, domiciled in or is an Iranian national;

- transactions between the Iranian state or an agency thereof and a foreign party (natural or juristic);

- transactions between a locally established foreign-owned enterprise and the Iranian state or an agency thereof or a private party.  

(f) **Rights and Responsibilities of the Parties**

As far as transfer and promotion of technology is concerned given the insufficiency of the Iranian classical law of contracts to govern the relationship between parties with an unequal level of development, an appropriate legal framework for this purpose,

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97 See Ibid, and Part Four, Exceptional Cases.

98 Article 63.

99 See supra, Chapter Seven, p. 185.
thus, should be established to encourage the parties to reach a satisfactory agreement based on good faith and on fair and honest business practices. In this regard the proposed draft of the Development of Technology Law mandates certain specific clauses in all transfer of technology agreements.\(^{100}\) In addition to compliance with the rules of general contract law, parties to a transfer of technology agreement are committed by the proposed law:

- To perform an effective transfer of technology;
- To supply all information necessary for the processing and execution of the contract.
- To maintain absolute secrecy or confidentiality with regard to the technical information disclosed during the period of validity of the contract, unless the said information is in the public domain or other party has given its express content;
- To choose, by common consent, the applicable law to govern their contractual relations but mandatory rules of the national legal system cannot be avoided by contract.\(^{101}\)

Before the registration of any transfer of technology agreements, the Director of the Transfer of Technology Office would give notice to the Directors of the other two Offices, stating the terms and conditions of the agreement and that he proposes to make such registration.\(^{102}\) It is recommended that within a specified period of time, the other two offices should inform the Transfer of Technology Office, in writing, any objections or representations they have with respect to the proposed agreement. In this case the Transfer of Technology Office would register the agreement only after any

\(^{100}\) Article 68.

\(^{101}\) Ibid.

\(^{102}\) Article 71.
differences, objections or representations have been resolved or after receiving the
approval of the Director General where an agreement cannot be reached. 103

A certificate of registration issued under this Law would produce legal effect
between the contracting parties or in relation to third parties. The certificate also
would give right to the transferee to pay in Iran to the credit of the transferrer outside
Iran and use available tax exemptions.

A designated department of the Transfer of Technology Office would be
responsible to monitor compliance with the conditions for registration of transfer of
technology agreements. For this purpose, the department may enter into arrangements
with appropriate government offices which have supervision over the technology
recipient to avoid duplication and for a more effective supervision of the applicant
firm. 104

103 Ibid.
104 Article 72.
IV. Part Four: Competition Rules

Controlling/Eliminating Restrictive Contractual Clauses and Restrictive Business Practices

The First Five-Year Development Plan of the Republic saw Iran moving away from state monopolies, state subsidies, and price controls. Currently, Iran is in the process of dismantling trade barriers and committing itself to free markets and the globalisation of the world economy. The government's intention to become a member of the WTO is evidence of Iran's determination to become more active in the international trade and economy.

The membership of the WTO requires that the government pursues, inter alia, a policy of law reform aimed at eliminating restrictive business practices. Iranian markets would be opened gradually to foreign direct investments which would be accompanied by technology exchange on a much greater scale than hitherto. In the absence of any specific binding international competition law, Iran has to fall back on its own laws to devise ways to maintain competition in its internal markets free of distortion by the conduct of foreign undertakings and to prevent concentrations of market power.

Although the repression of abuse of economic power is engraved in the Iranian Constitution, Iran has not enacted an antitrust law as such and no regulations exist

105 See supra, Chapter One p. 26.

106 This decision was announced by the Minister of Industries of Iran, see International Ettelaat, London, No. 233, April 21, 1995, p. 1; see also Financial Times, 31 October 1996; Ettelaat, No. 20905, 2 November 1996, p. 2.

107 The Constitution, Principle 3 (6), Principles 81 and 153. It should be noted that, the above principles are broad sweeping constitutional prohibition of all attempts to monopolise power. They should be enforced through the issuance of regulations promulgated by the Iranian Parliament or the executive upon delegation from the legislature. The President Legal Deputy has called for a
to enforce the constitutional requirement. The present thesis proposes such a law but in the context of the overall objective of developing a strong technological base in the country. In this respect, the TRIPS Agreement has allowed the developing countries to pick and choose among differing regulatory frameworks with a view to fashioning a set of anti-competitive practices that reflects their own needs and national development strategies.\textsuperscript{108}

Reflecting the argument in the thesis, the proposed competition rules would be administered and enforced together with industrial property and transfer of technology laws within a single body, the IBTPT, which would coordinate the work of the Protection of Competition Office with the work of the Patent Office and the Transfer of Technology Office and have ultimate responsibility. The Competition Office, in close relation with the other Offices, would be responsible to control and eliminate those restrictive clauses that may have adverse affect on the economic and technological development of the country. Through such interaction between the three Offices it may be possible to eliminate those restrictive practices that go beyond legitimate industrial property rights and are detrimental to the industrial progress of the country.

\textsuperscript{108} Article 40(1) of TRIPS allows action against licensing practices that restrain competition or impede the transfer and dissemination of technology. Article 40(2) specifically authorising measures to regulate "exclusive grant back provisions, conditions preventing challenges to validity and coercive package licensing." The TRIPS Agreement has also empowered developing countries to adopt appropriate measures to deal with abusive practices that "adversely affect the international transfer of technology." See Article 8(2) of the TRIPS. See also supra, Chapter Four, pp. 116-119.
A. Elimination / Control of Restrictive Clauses of Technology Transfer Agreements

(i) A General Provision

The proposed Development of Technology Law contains a general provision stating that in contracts on transfers of technology, patents and other items of industrial property rights shall not be enforceable if agreements involving such rights contain restrictive business clauses which could lead to restricting business, development and self-management functions of local firms and the use and development of social, economic and technological resources, or which have a harmful effect on the economic development and competition in the country.

(ii) Unacceptable Clauses in Technology Transfer Agreements

Although a general provision on restrictive clauses standing alone would bring about a high degree of flexibility in the administration of transfer of technology agreements, it would leave a great deal of uncertainty about acceptable and unacceptable clauses and also present the competent office with excessive discretionary power which is not always satisfactory. The proposed law, therefore, includes an illustrative list of unacceptable clauses of a restrictive nature in addition to the general provision against unsatisfactory restrictive business clauses.109

Such an illustrative list would capture the bulk of the objectionable restrictive clauses and help to expedite the approval and registration of transfer of technology agreements. This would be a great advantage to Iranian government administrators who would be dealing with these issues for the first time. Iran is a relative newcomer

109 Article 75. This approach is what matured competition laws such as the European Union has adopted. See Article 85 of the European Economic Community.
especially to administer antitrust institutions. The illustrative list would form the basis for the interpretation of particular cases, and determination of the acceptability of those practices that are not listed. Among the restrictions\footnote{110 For the harmful effects of these restrictive clauses for a developing country like Iran see supra, Chapter Five, p. 124.} that are included in the illustrative list are: tied-purchase, fixing of price, continuing payments after expiration of industrial property rights; grant back clauses; restrictions on research; restriction on adaptation; restrictions on scope, volume and price; no competition clause; export restriction; compulsory use of trademark.\footnote{111 Article 85.}

(iii) Catch-all Provision

In formulating the list of objectionable clauses, the thesis intentionally rejected the exhaustive list and adopted the illustrative list instead. Given the dynamism of commercial relationships, the inherent rigidity of the exhaustive list may result in still unknown practices falling outside the scope of the exhaustive list. The illustrative list, is open ended and is not limited to known practices. To bring more certainty to the illustrative list the proposed law has provided a catch-all provision. Similar to the European Economic Community competition law,\footnote{112 See EEC Competition Law, Article 85(1).} it has provided that the restriction provisions in the new law would apply also to other clauses having equivalent or similar objects or effects to those listed as unacceptable.\footnote{113 Article 85(1).}

(iv) Exceptional Cases

It may be recalled that the thesis attached great significance to the criterion for rejection of a restrictive clause. If Iran adopts the "competition approach" she would face the problem of shortages of foreign technology. Pursuant to the competition approach, she has to declare invalid any agreements that contain restrictive clauses,
though those agreements offer more advantages to the country. By contrast, the "development approach" permits those contractual clauses that are anti-competition but at the same time the contract as a whole has beneficial effects for the country. Therefore, the yardstick is development rather than competition.

The possibility of allowing such contracts should be provided by the law. In cases where substantial benefits would accrue to the Iranian economy, such as in export-oriented ventures, labour-intensive industries, those that would promote regional dispersal of industries or which involve substantial use of local raw materials. These contracts may be allowed when feasible under such regulations to be determined by the Protection of Competition Office.\textsuperscript{114} This approach is consistent with the TRIPS Agreement that has empowered developing countries to adopt appropriate measures to deal with abusive licensing practices that "adversely affect the international transfer of technology."\textsuperscript{115}

\textsuperscript{114} Article 86.

\textsuperscript{115} See Article 8(2) of the TRIPS Agreement.
B. Control of Agreements Between Competitors

In the absence of international accord on rules against anti-competitive behaviour in international business transactions, the thesis affirms Iran's right to regulate the terms of horizontal and vertical agreements between foreign competitors in the market to supply technology to the country as well. But unlike the current dual system of eliminating business practices in developing countries, the proposed Competition Office would deal with such restrictive practices as well.\(^{116}\)

Although the mere recital of the general and broad objectives of the competition law may be sufficient for their administration within the common law system, it is probably inappropriate in the case of Iran which has the civil law system. While the former system is workable because of the power of the courts to refine the applications of the law through judicial interpretation and to even make new law,\(^{117}\) the latter system requires all legal obligations to be ideally spelled out in specific provisions in law passed by the legislative bodies.\(^{118}\) Iranian Courts do not also have the vast resources in terms of expertise to administer a broadly phrased law which depends on judicial interpretation to apply in the practical world. Moreover, the weakness in a less comprehensive law is that it encourages litigation because of the need to resort to the courts for a secure decision. For example, huge amounts of resources are employed in the US and the European Community for the interpretation and enforcement of competition rules.

\(^{116}\) Articles 87 and 89.


\(^{118}\) It may be recalled that the Iranian Civil Code contains abstracts provisions that regulate all aspects of a person's legal relationships from birth to death. For more details see Shaygan, S. A., *Civil Law*, 3rd edition, Teheran. 1945, (in Persian); Katouzian, N., *Introduction to the Science of Law*, 4th edition, Teheran. (in Persian)
The thesis, therefore, concludes that the competition rules of the proposed Development of Technology Law should be spelled out in sufficient detail to make the administration of the law simpler and to provide adequate information to local and foreign undertakings to make investment decisions with relative confidence. Articles 87 and 91 of the proposed Law have stipulated a series of specifically prohibited restrictive business practices agreements and arrangements. These specific prohibitions would apply to any agreement between rival or potentially rival firms, regardless of whether such agreements are written or oral, formal or informal, legally enforceable or not, without regard to the location of its execution which have the intent or effect of: the fixing of prices or other terms of sale, including in international trade; collusive tendering; market or customer allocation; restraints on production or sales, including by quota; concerted refusals to purchase and to supply; and collective denial of access to an arrangement, or association, which is crucial to competition.\(^{119}\)

(a) **Scope of Application**

In order to be effective, the scope of application of the competition rules includes all firms, partnerships, corporations, companies, associations and other judicial persons in regard to all their commercial agreements, actions or transactions regarding goods, services or intellectual property.

For both theoretical and practical reasons, similar to other competition laws\(^{120}\) the scope of application of the competition rules would not include the acts of the Iranian government itself, or to those of local governments, or to acts of

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119 Article 87.

120 Treaty of Rome, Article 90.
enterprises or natural persons which are compelled or supervised by the State or by local governments or branches of government acting within their delegated power.\textsuperscript{121}

C. Control of Abuse of Dominant Position

The agreements and practices cited above can be characterised as vertical and horizontal agreements among competitors. In addition to those restrictive business practices, it is necessary that the competition rules restrain the acts of dominant firms which may unilaterally restrict competition as well. In this regard, the standards of "monopolization"\textsuperscript{122} or "attempted monopolization"\textsuperscript{123} are too vague for application in Iran. Instead the European term "abuse of a dominant position"\textsuperscript{124} which adopted also by the UNCTAD Code on restrictive business practices\textsuperscript{125} can be effectively applied to the Iranian legal system.

The term "abuse of dominant position" must however be clearly defined. The competition rules of the proposed Law refers "dominant position" to a situation where an enterprise, either by itself or acting together with a few other enterprises, is in a position to control the relevant market for a particular good or service or group of goods or services.\textsuperscript{126} Such a definition suggests that even a 50% market share of

\textsuperscript{121} Article 87. The present writer believes that state agencies which are engaged in commercial activities should be subject to the competition rules as private undertakings. This view is generally not accepted by the government authorities in Iran and parts of Europe.

\textsuperscript{122} Sherman Act, section 2.

\textsuperscript{123} Ibid.

\textsuperscript{124} Treaty of Rome, Art. 86.

\textsuperscript{125} See supra, Chapter Six, p. 167.

\textsuperscript{126} Article 82.
individual firms or firms acting in concert together can be adopted as a benchmark for a dominant position subject to rebuttal by any defendant. 127

Equally important is the concept of what constitutes an "abuse" of a dominant position. Certain of such acts and behaviour that are included in the competition rules of the proposed Law, are limiting production, markets or technical development to the prejudice of consumers; applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; dumping to eliminate competitors; tying obligations which have no connection with the subject of such contracts; misuse of intellectual property right to impede either import transactions or sales on the national market; and mergers, takeovers, joint ventures and other acquisition of control which impede effective competition in the relevant market. 128

IV. Enforcement Mechanisms

The proposed administrative arrangement of the IBTPT requires that, the Competition Office should review, eliminate or authorise restrictive clauses of transfer of technology contracts. The Transfer of Technology Office would notify the Patent and Competition Offices its intention for registration of a technology transfer contract. The latter, particularly is requested to inform the other offices about the restrictive clauses of the agreement. Through such procedure those restrictive clauses that go beyond

127 The United States' courts have elaborated their own benchmark for monopoly power. In their view, 90% market share represents monopoly power, 60% market share might represent monopoly power, and 30% market share was insufficient. United States v. Aluminum Co. of America, 148, F. 2d 416 (2d Cir. 1945).

128 Article 89.
legitimate intellectual property rights and are detrimental to the industrial progress of the country would be eliminated.

Regarding other agreements and arrangements, the proposed law sets out the procedure of notification of those practices which are not prohibited outright, and hence the possibility exists for their authorization. All agreements or arrangements not notified could be made subject to the full sanctions of the law, rather than mere revision, if later discovered and deemed to be illegal. Any authorization of the restrictive business practices under the competition rules is made by the Director of the Competition Office after differences, objections or representations, if any, of the Patent and Transfer of technology offices have been resolved or after receiving the approval of the IBTPT Director General where an agreement cannot be reached with the other two offices of IBTPT.

The Protection of Competition Office must review all authorizations every year in order to extend, suspend or subject an extension to the fulfilment of conditions and obligations. The Office may withdraw those authorizations where the circumstances of their authorizations have ceased to exist; the enterprises have failed to meet the conditions and obligations stipulated for the granting of the authorization; or information provided in seeking the authorization was false or misleading.

All enterprises or individuals, whether public or private that engage in activities enumerated in the Articles (87) and (89), without prejudice to any civil and criminal liability, would be guilty of an indictable offence and liable to imprisonment for a

129 Article 91.
130 Article 94.
131 Article 95.
132 Article 96.
term not exceeding five years or to a fine not exceeding hundred million Toman or to both.\textsuperscript{133}

It should be noted that the staff of the Protection of Competition Office is granted sufficient legal power to obtain required information and documents for discharging their duties.\textsuperscript{134} In the same way, the staff must observe the confidentiality requirements of their functions.\textsuperscript{135}

\textsuperscript{133} Article 98.

\textsuperscript{134} Article 17.

\textsuperscript{135} Ibid.
APPENDIX ONE

LAW FOR ESTABLISHMENT OF SUPREME TECHNOLOGY COUNCIL
OF IRAN

Main Functions of the Council

Article 1: By referring to articles 2 and 4 of the First Socio-economic Development of Iran, in order to institute an appropriate organisation for the adaptation of technology development policies with the economic, social and cultural policies of the country, and for following up the implementation of the technology policies, the Supreme Technology Council (Council) under auspices of the President shall be established.

Article 2: The Council shall have the following tasks:

(a) formulate a coordinated set policies for the preparation and implementation of a national technology plan for the transfer and development of technology as an integral part of the country’s national development plan;

(b) act as a forum for coordination and cooperation between all productive sectors and research and development centres;

(c) promote and encourage inventive and innovative activities that have industrial applications and also technical improvements and the dissemination of technological knowledge in the industrial production sector;

(d) correct and improve the rules relating to the transfer and development of technology and technology organizational structure of the country.

(e) monitor the transfer of foreign technology to the country

The proposed Law for Supreme Technology Council Law has been prepared on the basis of the first socio-economic development plan of the country and the relevant suggestions and studies by different government and private sources. See supra, Chapter Ten, note 10.
(f) determine the priorities of foreign investments regarding the national technological needs.

(g) encourage the private sector to invest more in the transfer and development of technology.

(h) pay due attention to the environment in the process of technological development of the country;

(i) direct activities of national R&D centres in order to use local raw materials for manufacture of export goods or those goods capable to substitute importing goods;

(j) planning for training of required experts and technology managers as the main factor of technology development;

(k) disseminate technology culture in the country;

Composition of the Council

Article 3: Members of the Council shall consist of:

(a) The President;

(b) Ministers of the following Ministries-

(i) Industry,
(ii) Justice,
(iii) Economic Affairs,
(iv) Trade,
(v) Jahad Sazandegi
(vi) Works
(vii) Environment

(c) The head of the Organisation of Scientific and Industrial Researches;

(d) The governor of Central Bank

(e) One representative of the universities in Iran to be appointed by the Ministry of education after
due consultation;

(f) One representative of the polytechnic and colleges of technology in Iran to be appointed by the Ministry of education after due consultation;

(g) One representative of Iranian Chamber of Commerce, Industries and Mines;

(e) The head and Directors of the executive body of the Council;

**Article 4:** The President shall be the head of the Council. Meetings of the Council shall be convened by the Industry Minister twice a year and extraordinarily if so required by him/her or a majority of the members of the Board.

**Article 5:** The Industry Ministry, within six months, shall prepare and submit to the Parliament its proposal for the establishment of required organisations to administer the executive tasks of the Council.
In the name of almighty the most compassionate, the merciful,
an Act to provide for the appointment and functions of a Board for the Transfer and
Development of Technology with powers to grant patents, register and monitor
transfer and promotion of technology agreements and control/eliminate restrictive
business practices in accordance with the following.

The Parliament of the Islamic Republic of Iran hereby enacts the Development of
Technology Law as follows:
PART ONE: THE BOARD FOR TRANSFER AND DEVELOPMENT OF TECHNOLOGY

Iranian Board for Transfer and Development of Technology

Article 1: There is hereby established a private law body with the name "Iranian Board for Transfer and Development of Technology", hereinafter referred to as the Board, with headquarters in Teheran.

Article 2: The President shall appoint an officer to be known as the Director General of Technology (in this Act referred to as "the Director General") to head the Board for the purposes of carrying out the functions assigned or transferred to him by this Act.

Article 3: An appointment of a person to hold office as the Director General shall be for a term not exceeding five years, but previous appointment to that office shall not affect eligibility for re-appointment.

Article 4: The Director General may be dismissed only by the President of the Republic.

Article 5: The Director-General shall be the Chairman of the Board and shall report to the STC.

Functions of the Board

Article 6: The Board shall contribute to the technological development of the country by performing the following tasks:

(a) administering the law relating to patent rights to ensure rapid and coordinated development of patent rights and their effective application;

(b) granting of patents, utility model certificates and innovation patents;

(c) establishment and maintenance of a Patent Information service to the Public in general and research institutions in particular;

(d) registering and recording of agreements for the transfer of foreign technology to Iranian parties
and ensuring the best contractual terms and conditions for Iranian parties entering into such contracts;

(e) encouraging a more efficient process of identifying and selecting foreign technology and developing the negotiation skill of Iranians;

(f) providing a more efficient process for the adaptation of imported the technology;

(g) monitoring, in a continuous basis, of the execution of any contract registered pursuant to the Act;

(h) removing obstacles to the absorption and dissemination of technology through measures to prevent the incorporation of implicit or explicit contractual restrictions in contracts for transfer of technology;

(i) promoting competition in the market for goods and services.

(j) obtaining, analyzing and providing technological and related economic and commercial information;

(k) formulating such policy as may be necessary to carry out the other functions of the IBTDT as may be conferred by the Act;

(l) recommending the desirability of signing, ratifying or withdrawing from international conventions and agreements on industrial property and the transfer of technology.

(j) publishing an industrial property bulletin and other publications to provide and disseminate information relating to patents, innovations and transfer of technology.
**Organisation of the Board**

**Article 7:** The Board consisting of three Offices, to be known as the Patent Office, the Transfer of Technology Office and the Protection of Competition Office for fulfilling the purposes of this Act as will be specified in the following Parts 2, 3 and 4.

**Article 8:** The each such Office shall be headed by politically an independent officer with special knowledge and experience of matters related to intellectual property, competition and transfer and development of technology.

**Article 9:** The Director-General shall appoint the Directors of the Offices in accordance with the conditions of public service in force at the time of appointment.

**Techno-economic Information Center**

**Article 10:** There shall be established a Techno-economic Information Center to maintain continuously updated indexes of suppliers of technology and technology-related market information. This Centre also will collect and maintain statistical data on the acquisition of foreign technology and development of indigenous technology and analyze technological and related economic and commercial information for the use of the public.

**IBTDT Tribunal**

**Article 11:** There shall be established a body to be known as the IBTDT Tribunal which shall be charged with the duty of hearing and determining disputes arising from applications for the registration of patents, utility models and innovation certificates and objections received as to the decisions of the three offices.

**Article 12:** The Tribunal shall consist of one or more Directors and Assistant Directors as may be determined by the Director General of the IBTDT. An appeal shall lie from the Tribunal decision to the Teheran Court.
IBTDT Registers

Article 13: There shall be established for the purpose of this Act, the following registers:

(a) register of patents;
(b) register of utility model and innovation certificates;
(c) register of transfer of technology agreements;
(d) register of notified agreements and arrangements for clearance.

Article 14: The registers shall be kept under the control and management of the IBTDT.

Article 15: The registers shall at all convenient times be open to the inspection of the public, subject to such rules as may be prescribed by the IBTDT.

Industrial Property Documentation Unit

Article 16: There shall be established an Industrial Property Documentation Unit (IPDU) which shall be charged with the responsibility of rendering and disseminating information on local and international inventive efforts in different fields of technology on a continuous basis.

Regulations

Article 17: The Director General may make regulations generally for the purpose of this Act, and in particular, without prejudice to the generality of the foregoing provisions, making regulations:

(a) prescribing regulations required for the implementation of policies and guidelines regarding technology transfer, industrial property rights and monopolies and restrictive agreements and arrangements;
(b) prescribing the forms and returns and other information required under this Act;
(c) prescribing the procedure for obtaining any information required under this Act;
(d) Prescribing the form of keeping of the registers required under this Act and the making of entries therein;
(e) prescribing any fees payable under this Act.
Penalties for False Returns and Obstructions

Article 18: Any person who:

(a) fails to furnish required notice pursuant to Article (14) above within 45 days of the notice; or

(b) knowingly or recklessly makes any statement in the returns which is false in a material particular; or

(c) wilfully obstructs any employee of the Board acting in the execution of his duties under this Act and any subsidiary legislation made hereunder, or

(d) without reasonable cause fails to give him any information or other assistance which such employee may reasonably require of him for the purposes of the performance:

shall be guilty of an offence and liable on conviction to a fine of to 200,000 Toman or imprisonment for six months or to both such fine and imprisonment.

Confidentiality

Article 19: Any person appointed or employed for the due administration of this Act who communicates to any other person (not being authorised to receive such communications) any document, drawing, photograph, plan, model or other information whatsoever which to his knowledge describes, represents or illustrates-

(a) any existing or proposed machinery, plant, installation or other structure whatsoever, or any patent, process or any design submitted by any person to the any of the Offices for or in connection with any application for registration;

(b) information obtained from enterprises containing legitimate business secrets;

(c) the identity of persons who provide information to the Protection of Competition Office and who need confidentiality to protect themselves against economic retaliation;
(d) the deliberations of government in regard to current or still uncompleted matters.

under this Act shall be guilty of an offence and liable on conviction to a fine of to 500,000 Toman or imprisonment for two years or to both such fine and imprisonment.

PART TWO

INVENTION AND TECHNICAL INNOVATION PROTECTION RULES

PATENT GRANTS

Article 20: The Director of the Patent Office shall have the general authority to grant patents which may be made under terms and conditions of this Act.

Article 21: Before granting a patent, the Director of the Patent Office shall give notice to the Director of the Transfer of Technology and the Director of the Competition Office -

(a) stating that he proposes to make such grant;

(b) stating the terms and conditions of the grant; and

(c) specifying the time within which objections or representations with respect to the proposed grant may be made,

and shall make the grant only after any differences, objections or representations have been resolved or after receiving the approval of the Director General where an agreement cannot be reached.

Article 22: A patent grant shall be in writing and, unless previously revoked in accordance with any term in the patent grant, shall continue in force for such period as specified below.

Patentable Inventions

Article 23: Patentable inventions are inventions that are new, the result of an
inventive step and susceptible of industrial application with the meaning of this Law shall be patentable.

**Novelty**

**Article 24:** An invention is new if it does not form part of the state of the art. The state of the art means the body of technical knowledge that has been made public by oral or written description, by use or by any other means or dissemination of information both within the country and abroad, before the date of the filing of the patent application or the priority date validly claimed in respect thereof.

**Inventive Step**

**Article 25:** Inventive step means the creative process the results of which are not obviously deducible from the state of the art by a person skilled in the relevant art.

**Industrial Application**

**Article 26:** Industrial application means the possibility of any product or process being produced or used, as the case may be, in industry, understood as including agriculture, mining, manufacturing industries and construction.

**Disclosure With no Effects on Patentability**

**Article 27:** The disclosure of information related to an invention shall have no effect on its patentability if the disclosure is made no earlier than 12 months before the filing date or the priority date, as appropriate, of the application by:

(a) the inventor;

(b) the Patent Office;

(c) a person who obtained the information directly or indirectly from the inventor.
Exceptions to Patentability

Article 28: The following shall not be patentable for the purposes of this Act:

(a) theoretical and scientific principles;
(b) discoveries that consist in making known or revealing something that already existed in nature;
(c) schemes, plane, rules and methods for carrying out mental processes, playing games and doing business;
(d) computer programs;
(e) methods of presenting information;
(f) aesthetic creations and artistic or literary works;
(g) methods of surgical, therapeutic, or diagnostic treatment applicable to the human body and to animals;
(h) juxtaposition of known inventions or mixtures of known products, or alteration of the form, dimensions and materials thereof, except where in reality they are so combined or merged that they cannot function separately, or where their characteristic qualities or functions have been so modified as to produce and industrial result not obvious to a person skilled in the art;
(i) essentially biological process for obtaining or reproducing plants, animals or varieties thereof, including genetic processes or those relating to material capable of self-duplication, either by itself or in any other indirect manner, when they consist simply in selecting or isolating available biological material and allowing it to act under natural conditions;
(j) plant spices and animal species and breeds;
(k) biological material as found in nature;
(l) genetic material;
(m) inventions relating to the living matter composing the human body.
Contents of the Description and Claims

Article 29: An applicant shall in the specification of his invention:

(a) correctly and fully describe the invention and its operation or use as contemplated by the inventor;

(b) set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most closely connected, to make, construct, compound or use it;

(c) in the case of a machine, explain the principle thereof and the best mode in which he has contemplated the application of the principle;

(d) in the case of a process, explain the necessary sequence, if any, of the various steps, so as to distinguish the invention from other inventions;

(e) particularly indicate and distinctly claim the part, improvement or combination that he claims as his invention; and

(f) the specification shall end with a claim and claims stating distinctly and in explicit terms the things or combinations that the applicant regards as new and in which he claims an exclusive property or privilege.

Examination of Patent Applications

Article 30:

1: The Patent Office shall carry out a full examination of the application for an invention to ensure that it meets the conditions for granting a patent laid down by this Law.

2: The full examination of an application for an invention shall be carried out by the Patent Office at the request of the applicant or of another person or may be carried out ex officio.
3: The person filing the request for full examination shall be required, on submitting the request, to pay an administrative fee in accordance with the relevant statutory provisions.

4: Where no request for full examination has been duly filed or where the Patent Office has not carried out a *sua sponte* examination within three years, the Patent Office shall terminate the procedure concerning the application.

**Exclusive Right**

**Article 31:** When the patent is granted, the exclusive right in an invention shall comprise the making, offering for sale, putting on the market of the subject matter of the invention, the intended use of the subject matter of the invention as well as the application of the patented method.

**Limitation of Rights Under the Patents**

**Article 32:** The effect of a patent shall not extended to:

(a) use of the patented invention for non-commercial purposes with a view to private needs, where such use does not cause significant material prejudice to the owner of the patent;

(b) use of the invention for experimental or research and development purposes relating to the subject matter of the patented invention;

(c) extemporaneous preparation for individual cases in a pharmacy of a medicine in accordance with a medical prescription;

(d) use of a product covered by the patent after the product has been lawfully put on the market in the territory of the country;

(e) use of the patented invention on board any foreign land vehicle, vessel or aircraft which temporarily or accidentally enters the territory, waters or airspace of the country, provided that the patented invention is used
Licensing and the Transfer of Rights

Article 33: A patentee may grant to another person, by written agreement, exclusive, non-exclusive, full or limited licence to work the patent. Unless otherwise provided, the grant of a licence shall not prevent the owner of the patent or registration from granting other licences, or from working the patent at the same time himself.

Article 34: The licence shall be registered in the Transfer of Technology Office and shall be of no effect against third parties until registration is effected and the prescribed fees paid.

Article 35: In the absence of any agreement to the contrary, the licensee shall be entitled to do any where in Iran in relation to the patent any act that the patent confers upon the patentee.

Article 36: In the absence of any provision to the contrary, in a contract for a licence, a licence shall not be assignable by the licensee and the licensee shall not be entitled to grant further licences.

Article 37: The person to whom a licence has been granted and registered with the Transfer of Technology Office shall, unless otherwise stipulated, be entitled to institute legal proceedings in defense of the patent rights as if he were the actual owner thereof.

Article 38: The working of the patent by the person to whom a licence has been granted and registered with the Transfer of Technology Office shall be considered done by the patent owner, except in the case of compulsory licences.

Article 39: Where, before the expiration of the licence contract, any of the following events occur with respect to a patent on which the contract is based, that is to say -

(a) the patent is declared invalid;

(b) the patent is revoked; or

(c) the patent has lapsed the licensee shall, from the date of the event, cease to make any payment directly relating to the patent.
**Invalid Clauses in Licence Contracts**

**Article 40:** Any clause in a contract for a licence is null and void in so far as it imposes on the licensee in the industrial and commercial field restrictions which do not derive from the rights conferred by the patent or are from the rights conferred by the patent or are necessary for the safeguarding of those rights.

**Article 41:** The following shall not be deemed to constitute restrictions for the purpose of the above provision:

(a) limitations concerning the scope, extent, territory or duration of the exploitation of the patent or the quality or quantity of the product in connection with which the patent may be exploited; and

(b) limitations justified by the interest of the licensor in the technically efficient exploitation of the subject of the patent.

**Non-voluntary Licences**

**Article 42:** At any time after the expiration of a period of four years from the date of the grant of a patent, any person interested may, in accordance with the rules of this Law, request the Patent Office for grant of a non-voluntary licence to work the patented invention provided that at least one of the following conditions is met:

(a) the patented invention, being capable of being worked in Iran, has not been so worked. Freely available importation of the patented article or substance shall not satisfy the working requirement;

(b) insufficient working of the invention to satisfy the needs of the national market, unless the patent owner gives valid reasons thereof;

(c) the working of the patented invention in Iran is being hindered, prevented or otherwise prejudiced by importation of the patented article; and

(d) where the refusal of the patentee to grant licences on reasonable terms, the establishment or development of industrial or commercial activities in Iran is unfairly and substantially prejudiced.
(e) where an invention protected by a patent in Iran cannot be worked without infringing the rights derived from a patent granted on an earlier application or benefiting from an earlier foreign priority.

Article 43: A non-voluntary licence shall be non-exclusive and entitles the licensee to do any act conferred to the patentee except importation and granting further licences.

Article 44: For certain patented products and processes which will be recognised by the General Director as vital for the defence or the economy of Iran or for public health, non-voluntary licences may be granted before the expiration of the four year period mentioned above.

Article 45: A non-voluntary licence shall only be granted subject to the payment of adequate royalties commensurate with the extent to which the invention is worked.

Nullification of Patent

Article 46: The patent shall be revoked by the if:

(a) the description attached to the patent is insufficient to enable a person skilled in the art to carry out the invention;

(b) the invention is not patentable in accordance with the provisions of this Law;

(c) the patent has not been effectively worked for a period of four years after the grant.

Definition of "Working of a Patented Invention"

Article 47: For the purpose of Act, reference to the working of a patented invention are to be considered as reference to -

(a) the manufacture of a patented article or substance; or

(b) the application of a patented method or process of
manufacture; or

(c) the use in manufacture of a patented machine, by an effective and serious establishment existing in Iran on a scale which is sufficient and reasonable in the circumstances.

Utility Model Certificate

Article 48: The Patent Office shall grant a utility model certificate for any novel and industrially applicable three-dimensional object with a particular design and form, such as a tool, an instrument, a device, an apparatus, or part thereof, proposed as novel and industrially applicable and capable of providing a solution to a technical problem.

Article 49: Any person who files a patent application may request, up to the date of issue of the patent, the conversion of his patent application into an application for a utility model certificate.

Article 50: The requirements for filing the application, the relevant supporting documentation and all other pertinent details of utility model certificate shall be determined by decision of the Patent Office.

Article 51: If the application for a utility model relates to a three-dimensional object and complies with the requirement of the above Article, the Patent Office grant a utility model certificate without prior examination of the novelty and industrial applicability of the utility model at the responsibility of the applicant.

Article 52: The term of a utility model certificate shall be seven years from the day following the filing date of the application. In all other aspects, the corresponding provision of Part I shall apply, mutatis mutandis, to utility model certificates.

Innovation Certificate

Article 53: The Patent Office shall grant an Innovation Certificate for an innovation which has not been manufactured in Iran on the day of the grant.

Article 54: An innovation shall be understood to mean the set of facts related to an immediately utilizable innovation and the first production thereof.

Article 55: An Innovation Certificate confers monopoly right to make, use and sell
the innovation which is not available in the ordinary course of trade from indigenous production for a prescribed period.

**Article 56:** The period of the protection shall be varied. The Patent Office on the basis of the innovating firm, the market and the project shall decide proper term for innovation patents.

**Article 57:** The grant of an Innovation Certificate is not contestable except on grounds of fraud.

**Article 58:** No fees are payable to keep the Innovation Certificate in force.

**Article 59:** The Patent Office shall have the power to introduce the needed regulations to govern procedures for filing and processing applications for Innovation Certificates and other pertinent details.

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**PART THREE**

**TRANSFER OF TECHNOLOGY RULES**

**Registration and Evaluation of the Transfer of Technology Agreements**

**Article 60:** The Director of the Transfer of Technology Office shall have general authority to scrutinise every agreement relating to transfer of technology before registration thereof under terms and conditions of this Act.

**The Scope of the Transfer of Technology Rules**

**Article 61:** The Transfer of Technology Rules of this Act shall cover all agreements, arrangements, contracts or related instruments whose purpose is:

(a) the assignment, sale and licensing agreement of industrial property rights relating to the right to use or exploit patents, utility models and innovation certificates or authorising the use of trade marks or trade name;

(b) the communication of know-how, that is, the provision of technical knowledge, not protected by patents, and which may be represented in diagrams, guides, formulae
and instructions, provided that they have not become common knowledge;

(c) the provision of technical assistance, technical consultancy and services;

(d) industrial collaboration agreements involving the provision of engineering services;

(e) the supply of machinery and plant

Article 62: Agreements with the following subject matter shall not be subject to obligatory registration:

(a) isolated use of foreign mechanics and technicians for the installation and repair of factories or plant;

(b) urgent technical assistance or repairs, provided that they are carried out in respect of an earlier registered agreement;

(c) advice, drawings or similar services usually accompanying machinery or equipment provided that they do not entail any special surcharge for the recipient;

Parties to Transfer of Technology Agreements

Article 63: The Transfer of Technology Rules of this Act shall apply to:

(a) transactions between private independent parties, at least one of which is resident, domiciled or is an Iranian national;

(b) transactions between a local public entity or State-owned enterprise and a foreign company;

(c) transactions between locally established foreign-owned enterprise and a local entity—public or private.

Application for Registration of Transfer of Technology Agreements

Article 64: As from the commencement of this Act, every transfer of technology
agreement of foreign origin which is to produce effects in Iran shall be registered with the Transfer of Technology Office in the prescribed manner not later than sixty days from the execution or conclusion thereof.

**Article 65:** The party responsible for registering the technology transfer agreement may either submit a copy of the agreement or complete the special form referred to in Article ...

**Article 66:** The procedure for preparing, drafting and making available the special form regarding technology transfer agreements shall be laid down by decision of the Director General.

**Existing Contracts**

**Article 67:** Every transfer of technology agreement which on the date of the coming into force of this Act had been entered into by any person in Iran with another person outside Iran and which still has effect on the commencement of this Act shall be registered with the Transfer of Technology Office in the prescribed manner not later than six months after the commencement of this Act.

**Rights and Responsibilities of the Parties**

**Article 68:** Every agreement mentioned in Article (59) of this Act shall contain at least clauses dealing with the following:

(a) Identification of the contracting parties, with an express indication of the place of constitution or nationality as the case may be, their domicile and the name of the legal representative of each party;

(b) Identification of the specific object of the agreement and of the products to be prepared thereunder, where applicable;

(c) the contractual value, analyzed by each of the services covered by the contract;

(d) The definite period of validity; and

(e) To choose, by common consent, the applicable law to govern their contractual relations but mandatory rules of the national legal system cannot be avoided by contract.
Other Rights and Obligations of the Parties

Article 69: In addition to the stipulations of the agreement, at least the following shall constitute rights and obligations of the contracting parties:

(a) To perform an effective transfer of technology;

(b) To ensure that the prices of the transfer are no less favourable than the valuable consideration normally required for such transfer to other licensees or by other similar suppliers in similar circumstances;

(c) To maintain absolute secrecy or confidentiality with regard to the technical information disclosed during the period of validity of the agreement, unless the said information is in the public domain or other party has give its express content;

(d) To supply all information necessary for the processing and execution of the agreement;

(e) To remit the accrued royalties in the amount, within the time-limit and under the conditions authorized; and

(f) To retain and pay to the Iranian treasury the taxes applicable to the authorised royalties;

Evaluation of Technology Transfer Agreements

Article 70: For the purposes of evaluation of transfer of technology agreements, the Transfer of Technology Office shall appraise the Economic, technical and legal aspects of the agreements, in awat that no arrangement or agreement between foreign investors and local interests (public or private) impede local technological development and block the flow of technology into the country.

Registration of Technology Transfer Agreements Office

Article 71: Before the registration of any transfer of technology agreements, the Director of the Transfer of Technology Office shall give notice to the Directors of the other two Offices -

(a) stating that he proposes to make such registration;
(b) stating the terms and conditions of the agreement; and

(c) specifying the time within which objections or representations with respect to the proposed agreement may be made, and shall register the agreement only after any differences, objections or representations have been resolved or after receiving the approval of the Director General where an agreement cannot be reached.

**Effects of Registration**

**Article 72:** No payment shall be made in Iran to the credit of any person outside Iran by or on the authority of the Ministry of Finance and Economic Affairs, the Central Bank and any licensed Bank in the country in respect of any payments due under a agreement mentioned in Article (59) of this Act, unless a certificate of registration issued under this Act is presented by the party or parties concerned together with a copy of the agreement certified by the Transfer of Technology Office.

**Article 73:** Any agreement mentioned in Article (59) or amendment thereto or extension thereof which has not been approved by the Technology Transfer Director shall produce no legal effect between the contracting parties or in relation to third parties and consequently no recourse may be had to it before any authority for commercial, tax, exchange or other purposes and performance thereof may not be claimed before national courts.

**Compliance with Conditions**

**Article 74:** The Transfer of Technology Director shall monitor compliance with the conditions for registration of transfer of technology agreements. For this purpose, it may enter into arrangements with appropriate government offices which have supervision over the technology recipient to avoid duplication and for a more effective supervision of the applicant firm.

**Cancellation of the Registration**

**Article 75:** Where the Director of the Transfer of Technology Office is satisfied that any agreement has subsequent to the registration thereof, has been amended or modified in contravention of the provisions of this Act, he
shall give notice in writing to the parties concerned of his intention to cancel the certificate of registration. The provision of Article (79) of this Act relating to reconsideration shall apply to any such notice as if it were a notice of reject an application for registration.

Article 76  Where no reconsideration application is lodged as provided under Article (77), the Technology Transfer Director shall with the approval of the Director General cancel the certificate of the party concerned.

Reconsideration

Article 77:  Any interested party shall have the right to a hearing his objection to the proposal of the Technology Transfer Director for the rejection of an application for registration. Such a request for reconsideration shall be filed with the Board's Tribunal within 30 days after the date of notice of intention to reject the application.

Article 78:  The request shall be in writing stating clearly and concisely the reasons therefor, and shall whenever relevant, be accompanied by evidence.

Article 79:  Where a request is allowed the Director General shall cause the Technology Transfer Director to issue a certificate of registration in that behalf. Where a request is disallowed, the interested party shall have a right to appeal to the Branch one of Teheran First Class Civil Courts, within 15 days of the rejection of the request.

Article 80:  The Transfer of Technology Office shall systematically identify technologies available on the world market for the various branches of industry, with a view to access to the most favourable and appropriate alternative solutions.
PART FOUR

COMPETITION RULES

Elimination or Control of Restrictive Business Practices and Prevention of Abuses of Dominant Power

Objectives of Competition Rules

Article 81: The objectives of the Competition Rules are:

(a) to identify and control restrictive practices in the transfer of technology agreements;

(b) to repress abuse of economic power referred to in Principles 3(6), 81 and 153 of the Constitution;

(c) to maintain and encourage competition in Iran in order to promote the efficiency of economy, development, transfer and diffusion of technology;

(d) to ensure that small-sized enterprises have an equitable opportunity to participate in the Iranian economy;

(e) to expand opportunities for Iranian participation in world markets while at the same time recognizing the role of foreign competition in Iran;

(f) to provide consumers with competitive prices and product choices;

(g) to promote innovations;

(h) to control or eliminate restrictive agreements or arrangements among enterprises, or acquisition and abuse of dominant positions of market power in Iran.

Definitions

Article 82: For the purpose of these Regulations the following definitions shall apply:

Enterprises "Enterprises" means firms, partnerships, corporations, companies, associations and other judicial persons, irrespective of whether created or controlled by private persons or by the state, which engage in
commercial activities, and includes their branches, subsidiaries, affiliates or other entities directly or indirectly controlled by them.

**Dominant Position**

"Dominant position of market power" refers to a situation where an enterprise, either by itself or acting together with a few other enterprises, is in a position to control the relevant market for a particular good or service or group of goods or services.

**Relevant Market**

"Relevant market" refers to the line of commerce in which competition has been restrained and to the geographic area involved, defined to include all reasonably substitutable products or services, and all nearby competitors, to which consumers could turn in the near term if the restraint or abuse raised prices by a not insignificant amount.

**Scope of Application**

**Article 83:** The scope of application of these rules include all enterprises as defined above, in regard to all their commercial agreements, actions or transactions regarding goods, services or intellectual property.

**Article 84:** The scope of application of these rules does not apply to the sovereign acts of the state itself, or to those of local governments, or to acts of enterprises or natural persons which are compelled or supervised by the State or by local governments or branches of government acting within their delegated power.
I. Control or Eliminating Restrictive Business Practices of Technology Transfer Agreements

Article 85: Contracts on transfers of technology, patents and other items of industrial property rights shall not be enforceable if agreements involving such rights contain restrictive business clauses specifically the following clauses:

(a) those that oblige the recipient to purchase capital goods, intermediate products, raw materials or other forms of technology from the technology holder or from a particular source; in exceptional cases the recipient may accept such conditions governing the purchase of capital goods, intermediate products or raw materials at prices consonant with current world market prices;

(b) those by which the undertaking selling the technology reserves the right to fix the sale price or resale price of products incorporating that technology;

(c) those which requires payments for patents and other industrial property rights after their expiration, termination or invalidation;

(d) those which require the recipient to transfer or grant back to the supplying party, or any other enterprise designated by the supplying party, inventions or improvements as are obtained through the use of the technology and patents, on an exclusive basis;

(e) those which require technology recipient not to contest the validity of any of the patents and other types of protection for inventions involved in the transfer;

(f) those which restrict the recipient either in undertaking research and development directed to absorb and adapt the transferred technology to local conditions or in initiating research and development programmes in connection with new products, process and equipment;

(g) those which prevent the recipient of technology from adapting the imported technology to local conditions or introducing innovation in it;

(h) those which limit the scope, volume of production or the sale or resale prices of the products manufactured by the technology recipient;
(i) those which prohibit the use of competing technology;

(j) those which restrict directly or indirectly the export of the products manufactured by the technology recipient under the agreement, except to countries in which the technology supplier himself produces such products or in which he has granted an exclusive right to manufacture such products;

(k) those which require that the technology recipient use of technology supplier trade marks on the products;

(l) those other clauses having equivalent or similar objects or effects.

**Exceptional Cases**

**Article 86:** Notwithstanding the foregoing provisions, in any cases where the Board is satisfied that substantial benefits will accrue to the Iranian economy, such as in export-oriented ventures, labour-intensive industries, those that would promote regional dispersal of industries or which involve substantial use of local raw materials, the agreement may be allowed when feasible under such regulations to be proposed by Competition Office and determined by the Director General.

**II. Control of Agreements Between Competitors**

**Article 87:** The following agreement between rival or potentially rival firms, regardless of whether such agreements are written or oral, formal or informal shall be prohibited:

(a) Agreements fixing prices or other terms of sale, including in international trade;

(b) Collusive tendering;

(c) Market or customer allocation;

(d) Restraints on production or sales, including by quota;

(e) Concerted refusals to purchase;
(f) Concerted refusal to supply;

(g) Collective denial of access to an arrangement, or association, which is crucial to competition.

(h) Agreements to otherwise restrain or injure competition and having or being likely to have adverse effect on the economic development (including technological development) of the country.

Authorization

Article 88: Practices falling with Article (87), when properly notified in advance, and when made by firms subject to effective competition, may be authorised when the IBDT concludes that the agreement as a whole will produce net public benefit. Cooperation in research and development, and agreement and arrangement relates to the export of products from Iran are examples for such an authorization.
III. Control of Abuse of Dominant Position

Article 89: The following acts or behaviour constitute abuse of dominant position of market power and shall be prohibited:

(a) Limiting production, markets or technical development to the prejudice of consumers;

(b) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(c) Predatory acts against competitors, such as using below-cost pricing to eliminate competitors;

(d) Making the conclusion of agreements subject to acceptance by the other parties of supplementary obligations which by their nature or according to commercial usage, have no connection with the subject of such agreements;

(e) Misuse of intellectual property right to impede either import transactions or sales on the national market; and

(f) Mergers, takeovers, joint ventures, or other acquisition of control which create or increase the power of one or more enterprises to the extent that impede effective competition in the relevant market.

Authorization

Article 90: The Competition Office may authorise acts, practices or transactions not absolutely prohibited by this Act, if they are notified, as described in Article (89), before being put into effect, if:

(a) all relevant facts are truthfully disclosed;

(b) affected parties have an opportunity to be heard;

(c) it is determined that the proposed conduct, as altered or regulated if necessary, will be consistent with the objectives of the law.
Notification

Article 91: When practices fall within the scope of Articles (87) and (89) and are not prohibited outright, and hence the possibility exists for their authorization, enterprises shall be required to notify the practices to the Competition Office, providing full details of the agreements or arrangements.

Article 92: Notification could be made to the Competition Office by all the parties concerned, or by one or more of the parties acting on behalf of the others, or by any persons properly authorised to act on their behalf.

Article 93: Enterprises shall be allowed to seek authorization for their agreements and arrangements falling within the scope of Articles (87) and (89) that existing on the date of the coming into force of this Act. They shall be notified within two months after the date of coming into force of this Act.

Article 94: All agreements or arrangements not notified could be made subject to the full sanctions of this Act, rather than mere revision, if later discovered and deemed illegal.

Action by the Competition Office

Article 95: Before the authorization of any restrictive business practices, the Director of the Competition Office shall give notice to the Director of the Transfer of Technology Office -

(a) stating that he proposes to make such an authorization;

(b) stating the terms and conditions of the authorization; and

(c) specifying the time within which objections or representations with respect to the proposed authorization may be made, and shall make the authorization only after any differences, objections or representations have been resolved or after receiving the approval of the Director General where an agreement cannot be reached.
Review of Authorizations

Article 96: The Competition Office shall review granted authorization every 12 month in order to extend, suspend or subject an extension to the fulfilment of conditions and obligations.

Cancellation of Authorizations

Article 97: The granted shall be withdrawn if it comes to the attention of the Competition Office that:

(a) the circumstances justifying the granting of the authorization have ceased to exist;

(b) The enterprises have failed to meet the conditions and obligations stipulated for the granting of the authorization;

(c) Information provided in seeking the authorization was false or misleading.

Sanctions

Article 98: All enterprises or individuals, whether public or private that engage in activities enumerated in the Articles (87) and (89), without prejudice to any civil and criminal liability, shall be guilty of an indictable offence and liable to imprisonment for a term not exceeding five years or to a fine not exceeding hundred million Toman or to both.
APPENDIX THREE

FINDINGS FROM A FIELD STUDY REGARDING THE IBTPT

A field study as to the IBTPT was conducted by the writer in Iran in 1994. By way of the attached questionnaire, data were obtained from twenty-five Iranian enterprises in the manufacturing sector (two automotive; ten rubber, glass, synthetic fibbers, petrochemical; and thirteen metal working, electrical, and non-electrical. The results are as follows:

A. Patents

Twenty out of the twenty-five enterprises maintained that, they agree and support the national patent system as proposed by the Law, because:

- in the event of transferring their valuable technology to Iranian parties, foreign enterprises had attached importance to the strong protection of their patents;

- the proposed patent rules would protect new technologies, and require sufficient disclosure and working of new technologies in the country;

- the system would bring certainty and confidence as to the protection of national inventions. Four enterprises asserted that they had new inventions, but due to the inadequacy of the current patent system, they had to either abandon their registration or register them in European countries, particularly in Germany;

- the system is necessary and timely in view of the integration of Iran's economy to the international economy and the World Trade Organisation. The proposed patent system has taken into account the new standards of the TRIPS and will encourage transfer and dissemination of foreign technology;

- the integration of the patent system in the IBTPT is logical and necessary, and will make the system more effective.

Five enterprises opposed any patent system: three of them assumed that the patent system would protect foreigners more than local enterprises; the other two enterprises were not aware of the patent system. They, however, asserted that a national law to protect local innovative activities and industrial investment is very necessary for the country.
B. Innovation and Utility Model Certificates

Twenty three out of the twenty five enterprises supported protection of the innovation certificates and utility model certificates as proposed by the Law. They asserted that such protection will encourage innovative activities and industrial investment. Five enterprises, mostly pharmaceutical enterprises, emphasised that they were not active enough in research and development and introducing new products because, in the absence of an effective legal protection, the products would be either copied by other enterprises or similar products would be imported from other countries.

Two out of the twenty five enterprises were against any market regulation.

C. Registration and Monitoring of the Transfer of Technology Agreements

Nineteen out of the twenty five enterprises that were questioned supported the registration and monitoring of the transfer of technology agreements as proposed by the Law, because:

- the present foreign exchange control situation in the country and particularly the remittance of foreign companies is not appropriate for the industrial development of the country. The current system has encouraged more the importation of finished goods than the transfer of technology and manufacture of required goods. Thus, the proposed IBTPT was welcomed by national entrepreneurs as likely on the one hand to encourage transfer of technology agreements and on the other hand to facilitates the reimbursement of required foreign currency.

- there is no responsible government agency in the country to monitor the transfer and promotion of technology and to report to the public;

- the technological information that would be provided by the relevant office would be very useful for local enterprises;

- the rules would strengthen bargaining power of local enterprises vis-a-vis foreign technology suppliers;

- the flexibility of the transfer of technology rules is beneficial and would be an effective instrument for the transfer and promotion of valuable technology to Iran.

Six out of the twenty five enterprises were opposed to the registration of transfer of technology agreements because in their opinion transfer of foreign technology is not needed or they believed in an absolute deregulation of the economy.

Nevertheless, even those enterprises that were in agreement with the registration and monitoring of the transfer of technology agreement asserted that with the continuing technological self-reliance and technological development of the
country, the scope of the statutory functions of the national transfer of technology office should be diminished. In that case, the system should be liberalised and focus more on the inventive and innovative activities and on free competition. This is of course, one of the reasons for the unique administrative arrangement proposed by the Law.

C. Competition

Twenty three out of the twenty-five enterprises that were questioned, maintained that the protection of competition in Iran is essential. They emphasised that the competition law is needed not only for the control of foreign monopolies in the country: the local, government and semi-government monopolies should be controlled as well -a view shared by this author. Further, they emphasised that the patent system in Iran cannot be an instrument for the technological development unless the granted rights are checked and controlled by the competition rules.

Two out of the twenty-five enterprises opposed any regulation of the market. In this sense they maintain that the absolute liberalisation and deregulation of the economy can provide a real competitive market.

D. The IBTPT

Twenty three out of the twenty-five enterprises that were questioned admitted that the IBTPT is a workable and useful organisation. They answered that the supervision of the Supreme Technology Council would give required insight and direction to the IBTPT. The IBTPT, thus, would work on the basis and with regard to the overall national development programme and implement the technological policies and priorities of the country. Furthermore, the corporate relationship of the Transfer of Technology Office to the other two offices in the framework of IBTPT, was acknowledged by them, as a wise and clear solution for the effective administration of the patent, transfer of technology and protection of competition rules. Moreover, they believed the IBTPT as a centre would provide worthwhile services and contribution to the technological development of the country.

One out of the twenty-five enterprises, however, felt the IBTPT to be unworkable mainly due to the uncoordinated functioning of the different ministries in Iran.
QUESTIONNAIRE (PRIVATE ENTERPRISES)

Dear Sir/Madam

Please find the enclosed copy of the proposed Law for Development of Technology in Iran. The Law would lay down rules for granting patents, for registering transfer of technology agreements, and for protecting of competition in Iran, and would bring these three laws under the supervision of a single independent agency of the government.

In sum the Law would:
provide protection for conventional patents as well as for industrial development patents;
require for the registration and monitoring of the international transfer of technology contracts with Iranian enterprises; and
protect competition in Iran.

1. Please answer the following questions:
1.1 Name of your Enterprise.
1.2 Main business activities.
1.3 registered address.
1.4 Number of employees.

2. Please outline your views regarding the following aspects of the proposed Law:

A. The new patent system;

B. The protection of industrial development patent in Iran (innovation certificates and utility model certificates) as proposed by the Law;

C. The registration and monitoring by the proposed IBTPT of international transfer of technology agreements conclude with Iranian enterprises;

D. The protection of competition in Iran by the proposed IBTPT;

3. Give your views with regard to the proposal that the above mentioned rules to be administered in a unitary legal framework such as the IBTPT;
Organisational Chart of the Proposed IBTPT
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