

India's Technology Policy

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ABSTRACT

In this paper technology policy of India which has evolved over the years have been introduced as following: Firstly, it is selective and seeks to protect local technology. Secondly, it seeks to reduce to direct costs and individual costs of technology imports by regulating the royalty rates, other payments, the duration and restrictive clauses. Thirdly, it discourages technology imports through foreign direct investment except for complex technology industries. Lastly, it stresses on rapid absorption, and indigenisation and upgradation of the acquired and imported technology.

India's technology policy mainly deals with two broad aspects, viz regularity of the technology imports and local generation of technology.

Since independence, India's policy on technology has been evoked with import - substitution as the main strategy leading to technological development. The importance of Science and Technology was recognized quite clearly and it was reflected in the scientific policy resolution passed in 1958. The hallmark of Indian strategy has been to promote primary investments, capital goods, science and technology infrastructure and kill information with two broad interlinked objectives, viz. (i) to provide protection for local technology skills from imported ones, and (ii) to promote R&D leading to indigenous technological development⁽¹⁾. The Indian plan document says that self - reliance must be the very heart of science and technology planning and there can be no other strategy for a country of India's size and endowments.

The early formation of India's technology import policy is contained in the Industrial policy resolution of 1948 and the foreign investment policy

resolution of 1949. Foreign investment was considered to be the channel of technology transfer, however the majority ownership and effective control were desired to be with the Indians. There are guidelines provided by the government regarding the limitations of collaboration agreements, lumpsum payments, royalty, technical fees, export obligation, etc.

In the fifties and sixties, the policy towards foreign investment and technology imports was relatively liberal. The mid - sixties saw the beginning of a policy which was more selective and discriminatory against technology imports. This was partly in response to the scarcity of foreign exchange and partly considered necessary to protect indigenous technological activities. The industries were identified according to the role of foreign technology which was expected to play a major role in their development and the terms on which technology could be imported were regulated.

The regular aspects of the policy were by and large, effectively implemented and as a result, the number and the nature of foreign collaborations changed significantly after the sixties. However, its success in promoting technological development in the Indian industry has been limited. It has also been found that the very restrictive nature of the technology policy is largely responsible for the technological obsolescence of Indian industry. According to this view, the restrictive policy has blocked the availability of modern technology and at the same time, it has not created conditions necessary for a domestic technology generation⁽²⁾.

The industrial policy statement of 1973 and 1977 identified high priority industries and decentralisation on the role of small scale and cottage industries⁽³⁾.

Realising the technology obsolescence and inefficiency in the Indian industries, the government, since late 70s has slowly liberalised its policy towards foreign capacity and technology⁽⁴⁾. The industrial policy statement of 1980, focused attention on the need for promoting competition in the domestic market, technological upgradation and modernisation. The industrial policy statement of 1980 focused attention on the need for promoting competition in the domestic market, technological upgradation on modernization⁽⁵⁾. The government has also announced the technology policy statement in January 1983, a new technological industrial policy in India, reiterating self - reliance as the basic aim of the development of indigenous technology and efficient absorption and adaptation of imported technology as the strategy. This also reinforces the importance of the development of technologies which are internationally competitive and have an export potential. At the same time, the government of India has initiated changes followed by policies on import of technology including foreign investments towards liberalisation and outward orientation. The emphasis of liberalisation has been on modernisation and achieving greater international

competitiveness to expand manufactured exports.

Under the technology policy mentioned above, a considerable volume of technology has flown into the country over the last 40 years. This period can be divided into three phases which by and large, sum up the government's outlook of foreign technology and capital. They are (i) relatively liberal policy until mid 1960s, (ii) regulatory policy since then, till late seventies, and (iii) current liberalisation of controls and regulation and moving towards outward orientation⁽⁶⁾.

To sum up, the technology policy that has evolved over the years has the following features: Firstly, it is selective and seeks to protect local technology. Secondly, it seeks to reduce to direct costs and individual costs of technology imports by regulating the royalty rates, other payments, the duration and restrictive clauses. Thirdly, it discourages technology imports through foreign direct investment except for complex technology industries. Lastly, it stresses on rapid absorption, and indigenisation and upgradation of the acquired and imported technology.

Although, the technology policy and its implications for technology development and industrial growth have attracted considerable attention by the various researchers, the problem has not been studied sufficiently to generate information and analysis on which the policy and changes in it could be based. Further, these studies are either confirmend to the macro level or specific industries. As most of technology is applied at the firm level, proper evaluation of the technology development demands the consideration at micro or firm level.

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