

ECONOMIC CONTENT AND STRUCTURE OF TECHNOLOGY MARKET

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Keywords: technology market, exchange of technologies, transfer of technologies, transnational corporations, circulation of technological achievements.

Technologies market is very specific. Technologies became independent commodity much later than labour products. Technologies which were initially created for own production later became the object of sale.

The fact that technology market became a separate sector is explained by the fact that on the definite stage of economic development people started considering knowledge as an economic resource. Technologies market is closely connected with the markets of production and commodities factors. Technology is part of production means. Technologies market is the aggregate of economic relations in the sphere of supply and demand formation, creation and exchange of technologies supported by corresponding institutions and mechanisms. Character and forms of technologies exchange are stipulated by the contents and the level of technologies maturity, their use, strategic and tactic goals of technological policy of corporative sector and national economy and the interests of technologies developers.

Exchange of technologies is not just the distributing or reproducing of scientific and technical information but an activity aimed at the creation of long-term contacts of technologies sellers and buyers. There is a hypothesis of "technological ability" according to which technologies implemented in organizations are more important.

Technological ability implies an ability to adapt and improve the technology in accordance with specific production conditions, institutionalization of research and the ability to adapt activities to the changing market.

By means of technological exchange it is possible to solve the problem of improvement of technological level of certain branches of economy. Specific character of technology as a commodity is that it makes possible for the seller to satisfy a lot of economic interests and not only compensate the costs with common goods. And the buyer receives not just commodity but missing element of production means. So, the main value of technology is that it will be useful in the future. \$1 invested in a license will give \$2-15 profit from commodity and license export.

Structuring of technologies market in accordance with the main channels of technologies distribution is very interesting. The importance of the so called brain drain is growing. Though there is no exact statistics the number of scientists and specialists with higher education who emigrated from Asian countries to the USA, Great Britain, Canada and Australia in

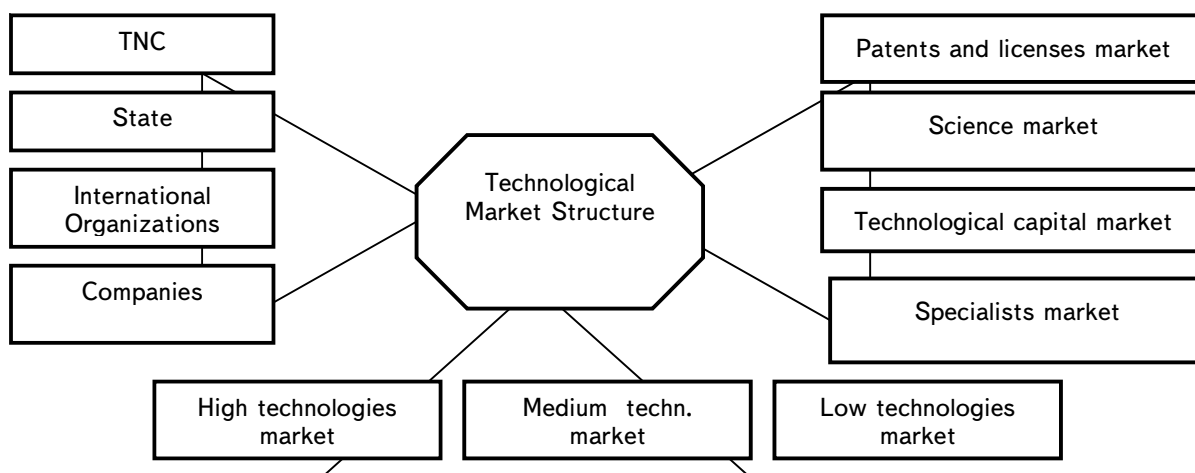


Fig. Technologies Market Structure

* Viktor I. Abramov, PhD in Physical and Mathematical Science, senior research worker of National Research Nuclear University. E-mail: vestnik@sseu.ru.

the 90-s was constantly growing. In the 90-s about 900 highly-qualified specialists especially in the field of computer science emigrated to the USA from India, China, Russia, Canada, Great Britain and Germany.

In the end of the 20th century there was the next stage in the development of technologies transfer made by transnational corporations. The development of computer science, microelectronics and new materials changed the priorities in national economies and the position of TNC on the world arena. There were also changes in transportation of technologies. If on the previous stage these were mostly the forms based on capital investments and technological transactions, in the 90-s these were mostly license deals. The necessity of cooperation, flexible forms of scientific research, and high temps of product renewal influenced mechanisms and forms of technologies transfer.

If in the 90-s the volume of technologies trade was \$ 20 -50 billion, in 2000 it was \$ 500 billion.

Selling the licenses in developed countries is going on faster than in other countries. The payments of 17 industrially developed countries in 1960-1989 increased from \$ 643 to 22904 million while the payments of other countries increased from \$ 509 to 2259 million.

The most important factor of technologies market creation and functioning is innovation potential. This potential is also necessary for adequate evaluation and adaptation of borrowed technologies.

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