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THE WORLD'S LEADING COUNTRIES AT THE GLOBAL TECHNOLOGY MARKET

Introduction. Nowadays, attracting technology is the main factor for an economic growth of developed and developing countries. Active participation in international technology transfer contributes to getting new knowledge, improves innovation activity and increases efficiency of economic processes. That's why investigation of global technology market is the main area of research.

Review of recent publications. A lot of scientists both Ukrainian and foreign have been studying the global technology market. Among them are D. Gibson, S. Glazyev, P. Kvintas, G. Kovalev, D. Massey, D. Uild, N. Fonshteyn, A. Alymov, V. Muntiyar, V. Stolyarov, Y. Bazhal and L. Fedulova.

The purpose of the work is to analyze global technology market and its leading countries.

Results of research. Technological learning and innovation are essential for economic growth and development and as a result they become major determinants of long-term improvements in income and living standards [1].

The term technology has been given various definitions. According to Sagar Pagar, technology consists of two primary components:

1. a physical component which comprises of items such as products, tooling, equipment, blueprints, techniques, and processes;
2. the informational component which consists of know-how in management, marketing, production, quality control, reliability, skilled labor and functional areas.

Technology is defined as “specialized knowledge applied to achieve a practical purpose”. In other words, scientific knowledge is applied to develop a product or service in order to satisfy an existing or new need [2].

In the current global technology market there are such subjects:

- at the mono and micro level – universities and research institutions, business centers, venture capital firms, innovators-individuals;
- at the meso level – transnational and multinational corporations, national companies and R&D centers (research, technology parks, etc.);
- at the macro level – the state and national science and technology systems;
- at the meta level – interstate formation and integration groups;
- at the mega level – international organizations, especially the UN systems [3].

Today, the most important technologies in the world are artificial intelligence, Big Data, bioengineering, bio-nanotechnology, information technologies, robotics/automation, personalized medicine and so on.

Different countries have different technologies and can export and import intellectual property. Intellectual property includes know-how, inventions, industrial designs, trademarks, innovative offers etc.

Fig. 1 shows the five biggest exporters of intellectual property, where the USA takes first place. They are followed by the Netherlands, Japan, the United Kingdom and Switzerland. The US exports are much higher and are constantly growing.

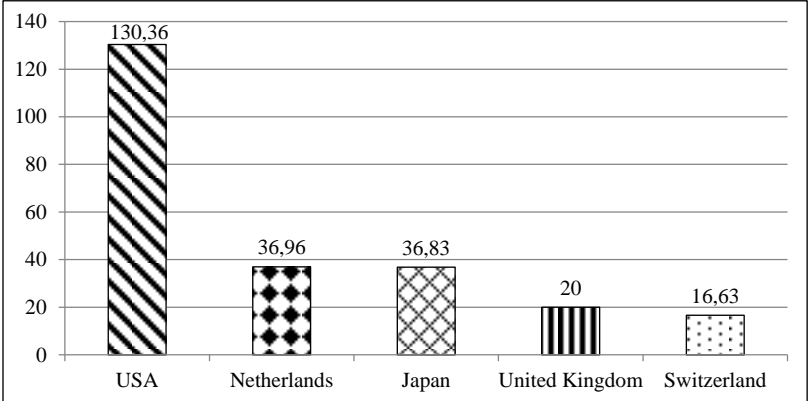


Fig. 1 Income from intellectual property in 2014, billion \$

Source: created by the author based on [4]

Moreover, the USA is one of the largest importers of intellectual property, although the volume of imports in the Netherlands is higher by \$ 3.7 billion (fig. 2). Singapore, Japan and Switzerland are also among the world leaders.

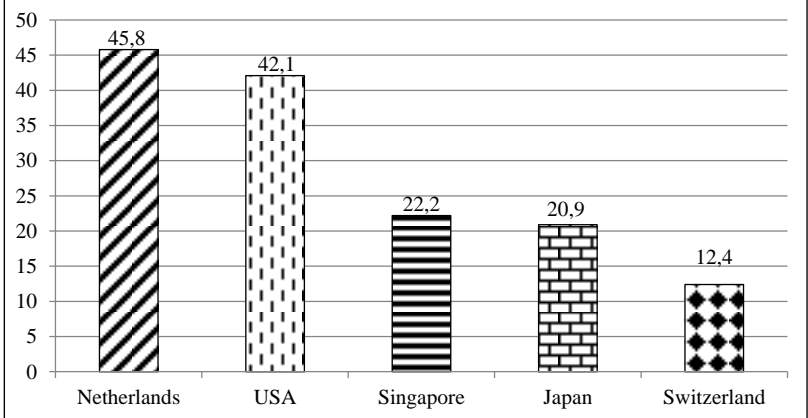


Fig. 2 Expenditure on Intellectual Property in 2014, billion \$

Source: created by the author based on [4]

These leading countries contribute a lot to science and technology. The leading positions are sustained by significant investment in research and development, good scientists, a large number of patents, and a supportive legislation.

Implementation of all favorable conditions for making advanced technology has given renewed impetus to international technology exchange. Thus, it has a positive impact on economic growth of both giving and receiving countries. Good examples of rapid growth through technology are Singapore, Japan, South Korea and Taiwan.

The technology transfer does not mean onetime actions taken by the transferring party toward the transferred party, but means continuous information exchange between the both parties to maintain the product manufacturing.

Conclusion. Thus, technology is the culmination of intellectual and physical ingenuity in order to augment human skill. Technological advancements affect the countries's development greatly.

Taking into account the above mentioned facts, it becomes clear that technological learning and innovation are essential for economic growth and development. Having analyzed the compiled information we can draw a conclusion that the largest exporters of intellectual property are the USA, the Netherlands, Japan, the United Kingdom and Switzerland. Such countries as the Netherlands, the USA, Singapore, Japan and Switzerland are leaders in technology acquisition. The success of these countries is connected with the priority development of high-tech industries.

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