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**SECTION 31.Economic research, finance,** innovation, risk management.

# FOREIGN EXPERIENCE OF THE INTELLIGENT PRODUCTS AND SERVICES MARKET DEVELOPMENT

Abstract: Innovative development of the country, the spread of knowledge in the economy are the main directions of the rapid development of the country's economy, which should be noted on the economies of the developing countries of Asia. The article analyzes the ranking of world countries in various areas that have a direct impact on the development of the market of intellectual products and services. And it also proposes to consider the stages of development of the market of intellectual products and services on the impact of Information and communication technologies.

Key words: Intellectual products, Asian economy, ICT, innovation, Uzbekistan.

Language: English

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### INTRODUCTION

Humanity is facing a time of global reformation basis of modern information and communication technologies. During this period, new levels of quality and change have taken place in sectors, particularly in economics governance, science, security and other areas. In addition, changes in the social and economic spheres through digital technology have a long-term outlook. It should be noted that the transition to digital economy can not be undermined and the country which is unable to adapt to it is left out of development.

Today's high-tech macro-technology has been in all areas of our life and could not able to imagine any development trends without modern information technology and automated systems. In particular, the market of intellectual products and services includes macro technologies, artificial intelligent, automated databases, e-business and other automated systems: work with big data, cloud technologies, use of modern information technologies and systems such as block chain technologies, have developed their own patterns of development in the world's developed countries. Which will be base to developing countries in Central Asia.

## LITERATURE REVIEW

Noticeable that our society has faced a new paradigm, and it has been concluded that the concept of transformation of countries into their national innovation system and digital economy should be promoted and modernized in the competitiveness of the national economy [3]. According to scientific sources, Austrian scientist Schumpeter, Joseph A. is one of the first scientists to investigate innovation issues and believes that the new markets can be improved by improving the production of new techniques and technological processes; development of new types of products; use of new raw materials; modernization of production and improvement of organizational issues and provision of new innovative products. This methodology suggests a study of the industry and has thus defined directions of the industry [4]. In particular, according to the scientist, the innovative approach to economic activity has determined the level of development of the economic system at any given time and, according to his doctrine, can achieve economic growth through the optimization of innovation activities and the use of small business and entrepreneurship.

Another group of economist scientists: Adam B. Jaffe, Josh Lerner, and Scott Stern [5], in contrast to the idea of Schumpeter, has demonstrated its internal factors as the cause of rapid economic



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growth due to innovation in emerging economies through innovation activity. They point out that transnational companies - large companies - play a major role in ensuring economic growth.

The concept of intellectual products and services has been introduced since the late 1990s, based on the literature review, there is no conceptual conclusion about the term of intellectual product. T.I. Volkova [6], I.A. According to Ivanyuk's ideas, intellectual products are merely the product of creative work, including discoveries, patents, scientific works, reports, lectures, methodologies, concepts, projects, technology descriptions, various literature, musical developments and so on.

According to B.V.Drozdov [7], the intellectual product is a collective work product that believes that the product can not be a commodity, but rather as a personal heritage rather than a personal heritage. V.F. Popondopulo [8], on the contrary, looks at the intellectual products as a commodity, and claims that they must operate according to the laws of the market economy, like other commodities.

American scientist Thomas R. Demark believes that the intellectual product is a broad concept, a product or service, which is sometimes thought to be a product of human intellect, which has a material shape and a lifetime. It should also be considered that the intellectual product is not only a collection of consumer-to-consumer relationships but also a product that has a natural-historical category that combines information, science, and production experience.

V.A. Shvandar i V.Ya. Gorfinkel [9] considers that the product of intellectual product is inappropriate. The Russian scientist A.B.Ilin shares the distinction between intellectual products and goods into three main categories: first, the product is a form of commodity, but intellectual products are not always necessary. Secondly, after the consumption, the intellectual product does not lose its effect, in contrast with traditional commodities. Thirdly, on the basis of the value of the intellectual

product, it is said that individual intellectual work, rather than general resources.

In this field there are some gap in distribution intellectual products and services, which could address by using modern Information communication technologies and automated systems.

### ANALYSIS AND RESULTS

Experience of countries with a high degree of international stability and aspiration for stability in the world economy is crucial for developing countries. Table 1.1. shows the World Economic Outlook in 2018 and other sources, the top ten countries in the World Economic Outlook and neighboring Central Asian countries.

According to Table 1.1, the China, the United States and India have three strong economies in 2018, but the Global Innovation Index for 2017 has the highest levels of innovation in the US, Japan and Switzerland. It is noted that some of countries from Central Asia has potential to be in this Index, however it seems to low Index ranking in the World. To address this issues Government of Uzbekistan created Ministry of Innovation Development of Republic of Uzbekistan, which working on innovation in country and developed map of activity to improving this field.

One of the world's top analytical rating points is the Global Innovation Index (GII), which annually publishes the quality rating of innovation in the high and middle income economies. (Figure 1.1) The above-mentioned World Leading States have achieved remarkable results both in socio-economic, cultural and spiritual aspects, as well as in recent years. The Global Innovation Index is rapidly changing and it is difficult to see stable growth rates. For example, according to 2017, South Korea has taken the 7th place in the world rankings, and 2018 data is down 11 degrees, but can be seen from a steady growth in economic growth. This rating does not include the countries of Central Asia, Uzbekistan, Turkmenistan and Afghanistan.

#### 1.1-table. The World Economic Outlook in 2018.

No	World Economic Ranking	Country	GDP Gross Domestic Product (US \$ million)	Global Innovation Index (World Ranking)	Online sales volume (USD)	Online Trading Percentage (%)	Human Resources Index (World Ranking)
1	1	China	23,300,782	53.10 (17)	672	15.9%	0.752 (86)
2	2	USA	19,390,604	59.80 (5)	340	7.5%	0.924 (13)
3	3	India	9,448,659	35.10 (57)	20	2.2%	0.640 (130)



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4	4	Japan	5,562,822	55.00 (13)	79	5.4%	0.909 (19)
5	5	Germany	4,193,922	58.00 (9)	73	8.4%	0.936 (5)
6	6	Russia	3,749,283	37.90 (46)	20	2%	0.816 (49)
7	7	Indonesia	3,242,768	29.80 (85)	7	3%	0.694 (116)
8	8	Brazil	3,240,524	33.40 (64)	19	2.8%	0.759 (79)
9	9	Great Britain	2,896,833	60.10 (4)	99	14.5%	0.922 (14)
10	10	France	2,871,264	54.40 (16)	43	5.1%	0.901 (24)
11	14	South Korea	1,969,106	56.60 (12)	37	9.8%	0.903 (22)
12	41	Kazakhstan	476,366	31.40 (74)	3.6*	5%*	0.800 (58)
13	61	Uzbekistan	222,338	-	-	-	0.710 (105)
14	81	Turkmenistan	103,604	-	-	-	0.706 (108)
15	97	Afghanistan	70,368	-	-	-	0.498 (168)
16	128	Tajikistan	28,373	26.50 (101)	-	-	0.650 (127)
17	136	Kyrgyzstan	23,104	27.60 (97)	-	-	0.672 (122)

Source: \* - PPRO Payments & E-commerce Report of Kazakhstan https://www.business.com/articles/10-of-the-largest-ecommerce-markets-in-the-world-b/ www.statista.com author's development on the basis of information available

These rating indicators are identified by several factors, such as the quality of universities (the top three universities enter TOP three), the number of patents (registered at least 2 organizations), the index index "N" and other similar innovations. According to the Global Innovation Index, the United States, Japan, Switzerland are world-class leaders, and China, India and Russia are in the middle-income countries.

Based on the above mentioned information, automation of national innovation systems of the modern country, digital technologies development, innovation development and improvement of a particular industry are a new way of solving old problems. The intensification of scientific and technical results in various industries, the current

scientific and technological results, the increase in students' access to intellectual products and services leads to increased worldwide interest in intellectual property, inventions, modernization methods and innovations. The introduction of macro-technologies and intellectual products and services in the economy serves to the development of new goods and services, high quality of goods and services, radical modernization of production, competitiveness and leadership in the world market.

The trend towards high technology production is related to developed countries, and the World Bank can identify world leaders by rating system (Figure 1.2).



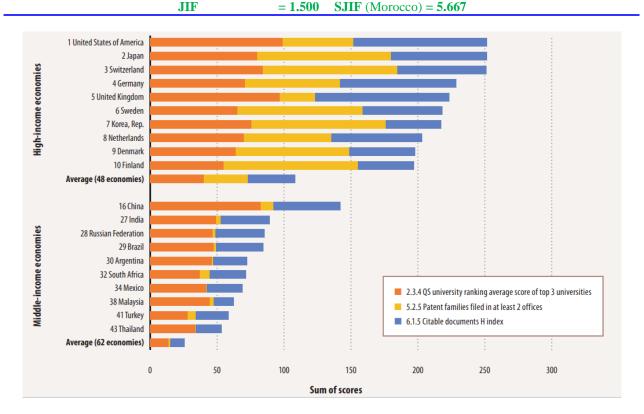
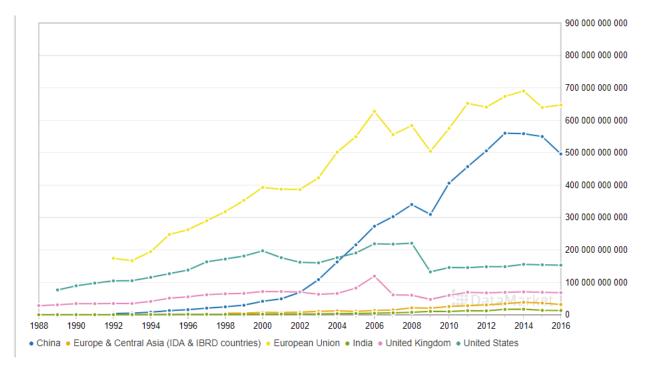


Fig. 1. Country of innovation quality in high and middle income economies.

Source: GII 2017 data. (https://www.globalinnovationindex.org/)

In countries of the world, there are many patents in the United States, China, Germany, Japan, Great Britain, France, and Sweden. According to Figure 1.5, the European Union has a worldwide leadership in terms of export of high technologies, and in the United States and the United Kingdom,

sustainable growth can be seen. It is also seen that the People's Republic of China has grown stronger since 2000 and is leading the way. It should be noted that the level of export of high technologies in Central Asian countries, in particular, in Uzbekistan.





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Fig. 2. Exports of high technologies in the world's mainstream countries and countries in 2016 (USD million)

Source: World Bank

To analyses innovation situation and address issues in Central Asia, was chosen main countries in Asia, because their economy, culture, some problems similar with Uzbekistan. For example, the reforms aimed at the acceleration of China's socio-economic development began in 1978 and created enormous opportunities for further development of the state. China, as well as Japan, has managed to establish a modern industrial network since its acquisition of patents, licenses from abroad, of its innovative development. Based on a step-by-step model of transition to an innovative economy in China, [14] the following steps have been taken in this process:

Phase 1 - 1978-1984, this phase was called a secret process and at that time the foundations of the territorial innovation system were created;

Phase 2 - Including 1985 to 1995, regional innovation system developed;

Phase 3 continues to be in the form of regional innovation systems since 1996.

In China, the market economy, its mechanisms are developing and improving, and the market competition and cooperation environment is intensifying. Businesses are increasingly paying close attention to issues of cooperation and labor dispersion. The cooperation, based on the chain of "production - university activities - scientific research" has been expanding and expanding more widely. Independent innovative activity of enterprises allows rapid development and creation of regional innovation systems.[15]

The specific principle of China's innovative development is evident in the fact that it attracts investments from abroad and acquires ready-made technology, introduces its own innovations and produces high-tech brands. The Strategic "2006-2020

Plan" was the government's attempt to build a Chinese model of growth and turn innovations into the foundation of future economic development.[16]

India has been focused on reducing the risk of innovation by building infrastructure, providing technical, informational and methodological assistance as well as attracting public funding for innovative development of the economy. In the process of expanding its operations to the Companies, the Technology Development Council, established by the Government of India in 1996, helps.

One of the key elements of Indian innovation is technology parks and incubators. Supporting these organizations is one of the most important tasks of the state.

The Indian government has a dedicated agency that promotes science and technology parks, science, and technology. India pays great attention to the creation of a common legal framework for innovation, and in 2008, the Indian government adopted the "National Innovation Act" in the field of innovations. About 80% of the country's exported and exported 45 technology parks belong to the IT sector. The world's leading 300 transnational corporations are implementing and implementing computer programs

Based on the analysis of some aspects of national innovation development systems, developed countries can be divided into general and specialized groups of existing mechanisms. Mechanisms that affect the institutional environment of the common mechanisms and the specific mechanisms address specific sectors of the economy. These include education, labor market, international trade policies, and so on.

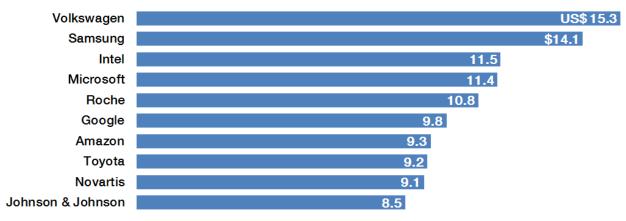


Fig. 3. The volume of scientific research by large companies of the world is 2015. (USD million) Source: PwC



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It should be noted that, in the world experience, the tendency of the large companies to invest in scientific research and experimental constricting development is growing. As illustrated in Figure 1.4, the Volkswagen car manufacturer has invested \$ 15.3 million and South Korean Samsung, \$ 14.4 million, for the company's research.

The formation of the intellectual products and services market is based on the past, but as outlined in Figure 1.5, as the modern free-style interpretation, the following key stages of the market of intellectual products and services are offered:

Stage 1. Real Estate Stage. (1960-1980) to establish its formation stage with the establishment of the World Intellectual Property Organization (WIPO), based on a set of documents, intellectual property and services have been legally protected, that is, to look at them as products and to establish trade relations. This organization was established in 1967 and is now considered as one of the key United

Nations organizations in the field. The WIPO contributes to new agreements, modernization of national legislation, international cooperation on interstate administrative cooperation, inventions, symbols and industry. The main objective of this phase is to develop scientific and technological progress in the post-World War II military-technical recovery.

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Stage 2. Must be included as an independent research object. (1980-1990) The study of science and the exact area corresponds to the 90's of the 20th century. Sectoral literature, research, and period of development recognized by world scholars as prospective directions of development are the basis this stage of economic growth, competitiveness. The complex socio-economic situation also has a positive impact on the development of the industry, as it is best to rely on scientific research to overcome the economic crisis.

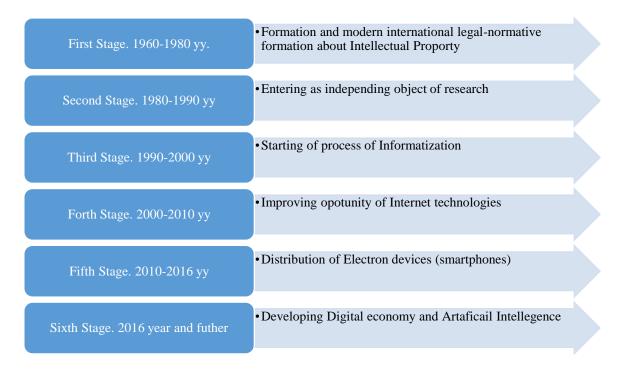


Fig. 4. Stages of formation and development of the market of intellectual products and services Source: author's description based on the literature studied

Stage 3. Starting the Informatization Process (1990-2000) With the start of commercialization of PCs and the discovery of the Internet for a wide audience, this stage is characterized by a new, momentous stage in the development of intellectual products and services market. In other words, the processes of electronic information processing, the electronic analogue functioning, the transformation of paper documents into electronic documents appear in the socio-economic life of the society. As a result,

new methods of electronic storage and transfer of step-by-step intellectual products appeared.

Stage 4. Improvement of Internet technology capability (2000-2010). It should be noted that during this period ICTs and widespread use of the Internet have positively affected the development of this market, ie the possibility of diffusion of intellectual products and services. This period is characterized by the marketing and popularization of intellectual and services, and products



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development of intellectual databases such as SCOPUS, WEB of SCIENCE, and ect.

Stage 5. Spreading of electronic devices (smartphones) (2010-2018). The main goals of this phase are to provide scientific and technical information that will help address socio-economic issues in information services, medicine, ecology and other relevant topics, as a result of widespread use of smartphones, social networks and messengers (FACEBOOK, MENDILEV, TELEGRAM, ODNOKLASSNIKI, etc.) the product or product was first searched on the Internet and then purchased by other means. There is also an increase in the market of intellectual products and services, but there are problems such as information security and reliability.

Stage 6. The stage of digital economy and artificial intelligence development. (2018 and the near future) Humanity is facing a time of global reformation on the basis of modern information and communication technologies. During this period, the industry will have new quality steps and changes, particularly in economics and governance, science and security, and so on. It should be noted that the transition to digital economy can not be undermined, and whoever is unable to adapt to it is left out of development. One of the main problems of digitization is rapid unemployment, because automation of workplaces, robotics and artificial intelligence, which require a lot of secondary special skills. At the same time, new areas are created and the demand for modern professionals is growing.

Regulatory information, the efficiency and reliability of the business, has been achieved through the use of modern ICTs, as well as real-time sales of smart products and online services.

Through the stages of development of the above mentioned intellectual products and services market, we can see the sharp impact of the technical and technological revolution on the market, and there are positive and negative aspects. On the positive side, it can be seen that information security issues have a negative impact on the expansion of marketing methods.

# **CONCLUSION**

The above-mentioned states have found themselves in the solution of problems: in which one

state is focused on providing state support to scientific research, and in another one is given tax breaks to innovators, and there are different approaches to the support of inventors - innovative product developers. The experience of overseas states can be understood by the direct and indirect involvement of the states in their innovation activities, as well as through the creation of an indirect assistance and innovative infrastructure.

The following factors can have a positive impact on the establishment and development of the national innovation system to ensure economic growth on the basis of innovative development:

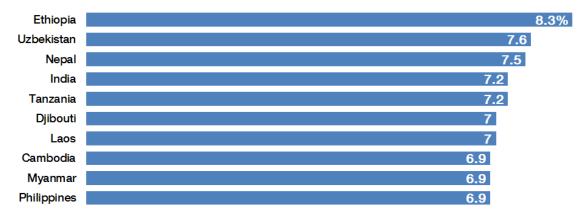
- Innovative and consistent implementation of innovative policy, which is embodied in the concrete goals and objectives of the state;
- systematic collaboration between private, research and education sectors;
- development of programs aimed at commercialization of innovations;
- technoparks, venture financing, innovation centers

construction:

- Learn and implement best international best practices and so on.

Thus, based on the analysis of the innovative development system of developed countries, it is possible to conclude that the national innovation system should be constantly upgraded and sustained to ensure sustainable economic growth and competitiveness of the country. For many models, we can see that some innovation systems have a partial and some state role. In general, we can say that transition to innovative development of countries is of paramount importance, such as free education (Germany), higher science expenditure (Germany, Finland). It is possible to achieve high rates of economic growth through effective use of the experience gained from the dynamic development of the developed countries (China, South Korea) for a certain period of time. It is also possible to realize that the economic policy, which has been implemented gradually, is appropriate for the domestic and external capacities of the country.





Fugure 1.6. The list of the fastest growing economies in the world by 2017

Source: World Bank

Based on world experience, we can say that with the support of small innovative enterprises and large companies, they can also achieve positive results. It is desirable to work together in a complementary fashion. From the experience of the world, we can see that there is no single model of innovation economy in the world. Each country has chosen its own model of transition to a knowledge-based economy. In the most developed countries of the world, which has been experiencing commodity-money relations for several centuries, the issue of transition to an innovative economy has not been spontaneously implemented.

To support and improve research and development, innovation and the knowledge economy as a whole, we offer the following forms:

first, it is necessary to improve legislation, in accordance with the international standard, to develop preferential systems for small businesses and private enterprises engaged in research and development;

secondly, the development of methods and mechanisms of organizational and structural support, this mainly concerns the regions of the Republic of Uzbekistan, and the infrastructure is more developed in the capital;

thirdly, sustainable financial and economic support, attracting investment in the field and active participation in international grants;

fourthly, information and communication support, infrastructure development and database improvement;

Fifth, the involvement of gifted personnel in R & D. Do not give the possibility of "brain drain" from leading scientific industries.

In conclusion, we can say that the knowledge economy in Uzbekistan is developing evolutionarily, achieving the majority of positive results in recent years after the formation of the Action Strategy on the five priority directions of development of Uzbekistan in 2017-2021, as well as negative factors that need to be improved in the near future.

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