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ANALYSIS OF RUSSIAN PRIORITIES FOR THE DEVELOPMENT OF INTERNATIONAL DIGITAL ECONOMIC PARTNERSHIP

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Abstract

The article considers the urgency of international digital economic partnership due to economic cycles of the world economic development; dominance in the world political and economic arena of the coalition of countries that are using unacceptable methods of foreign economic policy (protectionism, sanctions, currency and custom war); the advent of cryptocurrency, Blockchain technologies and new ways of information and economic interaction “B2B” and “B2C” as well as digital networks consumer “IoT”. As a result of ranking relatively stable positive median values of growth rates of indicators development of the Russian information society, with an assessment of their importance, priorities are identified. Ranking by priority of OECD countries and individual non-OECD countries allowed to identify partner countries-Japan, Singapore and China. The decline in world trade and increased global competition have contributed to the occurrence of resonance oscillations of economic cycles, different levels of technological modes of countries in the world, greatly increasing the requirements to the growth dynamics of the national economy complex. Russia needs a new economic policy with a focus on the economy digitalization in the format of the international digital economic space in priority growth areas. Acceptable and commensurate digital economic partner of Russia is Japan, which is borrowing from the volatile dynamics of the growth rate of the Russian economy, could be the damper for the intensified fluctuations in economic cycles. The results of the study are relevant for government authorities in the selection and justification of international cooperation activities in the field of digital economy development.

Keywords: Digitalization, international digital economic partnership, national economy complex, positive median values, Russian priorities, sustainable economic growth.

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1. Introduction

Established and recognized by the world academic circle of the theory of business cycles (Kitchin – 2-3 years; Juglar – 7-11 years; Kuznets – 15-20 years; Kondratiev – 48-55 years), revealing the causes of swing in economic activity, allow you to understand how to avoid the deep recession and to increase the duration of a period of economic growth. As a rule, all variety of methods is reduced to the growth of investments (Krawiec & Szydłowski, 2017; Makiela & Ouattara, 2018;), an increase of innovative activity (Guarascio & Tamagni, 2019; Lendel et al., 2017; Smirnov, Semenov et al., 2019), stimulation of business activity (Peterson, 2018; Singh et al., 2019; Smirnov et al., 2018), etc., in borders of the separate national economy and a national economic complex.

Opportunities for joint development of countries, taking into account the diversity of methods of ensuring economic growth, are considered only within the framework of geopolitical cooperation, highlighting political priorities over socio-economic. As a result, coalitions of states consisting of developed and developing countries are emerging.

For a long time, the G7 countries dominated the global political and economic arena. But the achieved limits of economic development of these countries, in terms of economic cycles, forced to pay attention to the possibility of using the growth potential of other countries. The G20 club of States with the most developed and developing economies (more than 80% of the world's gross national product, 70% of world trade, two-thirds of the world's population) was formed.

2. Problem Statement

In the context of slowing world trade and increasing global competition, the G20 countries began to actively apply political-economic measures to ensure the stability of their own economic growth – protectionism, sanctions, currency and customs wars. To eliminate the possibility of the influence of individual countries and/or a coalition of countries on the market world order, including through the control of the money emission of reserve currencies of the world, a cryptocurrency appeared. Cryptocurrency and Blockchain have become the drivers of the formation of the digital economic space.

In the new digital reality, the Russian economy, with its unimpressive development parameters, must decide on a partner capable of ensuring sustainable economic growth (Smirnov, Semenov, Kadyshev et al., 2019).

According to the forecast of the Analytical Credit Rating Agency (ACRA) for 2019 – 2023 the slowdown in world trade growth will impede the increasing demand for Russian raw commodities exports, without financial stress in the banking sector will keep growth rates of 0.4-0.9% in 2019, a more significant decline perhaps the onset of the recession, a decline to minus 2.5-3%. (ACRA, n.d.). To eliminate the effects of the slowdown in world trade growth and maintenance of the commodity structure of the Russian economy in the framework of the Russian Federation Presidential Decree “About the national objectives and strategic tasks of development of the Russian Federation for the period till 2024” (Russian Federation Presidential Decree from May 7, 2018, No. 204), the government formed a passport of the national project of National program project “Digital Economy of the Russian Federation” (Ministry for Digital Development, Communications and Mass Media of the Russian Federation, 2020).

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3. Research Questions

The subject of study is the international digital economic partnership. The research topic is the analysis of Russian priorities for the development of the international digital economic partnership. The object of the work is the determination of the directions and possibilities of using the potential of the international digital economic partnership to ensure sustainable economic growth and dynamic development of the national economy complex of Russia.

4. Purpose of the Study

The purpose is to determine the priority directions of development of the Russian digital economy.

5. Research Methods

The study is based on a systematic approach using statistical analysis. The digital economy is based on information and communication technologies (ICT) (Luo & Bu, 2016; Watanabe et al., 2018), innovative conduct of business through markets via the Internet (Pagoropoulos et al., 2017). Tapscott (1996) in the book Digital Economy: promise and danger in the age of network intelligence " described how the Internet will change the way we conduct of business (Keong, 1999). The emphasis of the concept of "digital economy" is shifted to the side: e-business infrastructure; a way of doing e-business; e-commerce.

5.1. Theoretical positions

In the digital economy, communications infrastructure provides a global platform on which people and organizations devise strategies, interact, communicate, collaborate, and seek information (Nadiri et al., 2018). At the heart of the digital economy is hyperconnectedness, which means the growing interconnectedness of people, organizations, and machines that results from the Internet, mobile technology, and the Internet of things (IoT). IoT is the concept of a computer network of material things ("things") equipped with built-in technologies for interaction with each other or with the external environment, considering the organization of such networks as a phenomenon that can restructure economic and social processes, eliminating the need for human participation from part of actions and operations (Brown et al., 2013).

The success of business in the digital economy is determined by the prospect of work, flexibility of the global enterprise; consumer experience, convenient way of interaction "B2B", “B2C”, "IoT", the global merger of the physical and digital world. Every asset of consumers, businesses, devices, and processes move into the digital realm, where software dominates (Maras, 2015).

5.2. Practical activity

Economists study how digital technologies change economic activity in various areas of the national economic complex. For example, digitization has reduced a number of economic costs: search, reproduction, transport, track and verify. Changes in economic behavior that result from cost changes

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inherent in the digital context are not as obvious as the underlying economic models imply (Goldfarb & Tucker, 2017).

The economic costs of search, reproduction, transportation, tracking, and verification are significantly reduced when Blockchain technologies are applied. Blockchain is a special structure for recording a group of transactions in the Bitcoin system and similar cryptocurrencies.

Blockchain significantly reduces the cost of verification and the cost of networks. The cost of verification is associated with the state value, including information about past transactions and their attributes, the current ownership of the digital token. The cost of networks is associated with the ability to download and manage the market without the control of a centralized intermediary. Digital markets allow agents to co-investment in shared infrastructure and digital public utilities without assigning market power to the platform operator, and are characterized by heightened competition, lower barriers to entry, and privacy risks (Catalini & Gans, 2019).

Blockchain represents a new application of cryptography and ICT to solving financial accounting problems. High rollers in the financial industry have begun to invest in new technology, and stock exchanges have proposed the use of Blockchain as a method of trading corporate stocks and tracking their ownership (Yermack, 2017).

Application of the financial industry Blockchain technology has the potential to improve payment and clearing transactions of central banks and may serve as a platform from which Central banks will launch their own digital currency (Central Bank Digital Currency, CBDC). CBDC will bring closer the relationship between citizens and Central banks, eliminating the need to keep deposits in commercial banks with fractional reserve (Raskin & Yermack, 2016). CBDC can serve as a free exchange medium, safe custody of value and a stable accounting unit (Bordo & Levin, 2017).

At the same time, Bitcoin has reached only a small amount of consumer transactions, on average well below one daily transaction for the few merchants who accept it. Its volatility is significantly higher than the volatility of widely used currencies, which creates a large short-term risk for users. Bitcoin's daily exchange rates show virtually zero correlation with widely used currencies and gold, making It useless to manage the risk and extremely difficult to risk hedging. Bitcoin faces daily risks of hacking and theft, has no access to the banking system with endowment insurance, and is not used for the denomination of consumer credits or credit contracts (Yermack, 2014).

6. Findings

6.1. Development priorities of the Russian information society

To determine the priority directions of development of the Russian digital economy, we will rank the relatively stable ($6^2 < 30$) positive median values ($Me > 0$) growth rates of indicators of the development of the Russian information society, with an assessment of their importance (Table 1).

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Table 01. Ranking relatively stable (6^2 < 30) by positive values ° f Me (Me> 0%) growth rates of indicators of the development of the Russian information society, with an assessment of their importance, 2014-2018 (%).

Indicator	Me	6^2	Importance
Number of researchers engaged in research and development per 10,000 employed in the economy	20.25	16.52	61.5
The share of organizations that had special software to manage sales of goods (works, services) in the total number of surveyed organizations	15.38	14.74	32.1
The digitalization level of the local telephone network, total	9.47	3.54	21.2
Share of organizations using Internet access at a speed of at least 2 Mb/s in the total number of organizations	4.26	6.43	48.0
Number of personal computers with Internet access per 100 employees in organizations	3.83	0.64	58.3
Proportion of population able to receive one television programme of terrestrial digital in total population	3.52	9.56	37.4
Percentage of organizations using third party open-source operating systems (for example, Linux) in the total number of organizations surveyed	0.34	0.44	100.0

Note: *Forecast using the method of the least squares. Evaluation of the importance – of the multilayer perceptron, batch training.
Source: calculated in "SPSS Statistics" according to the "Monitoring of the Information Society Development in the Russian Federation" Federal State Statistics Service of the Russian Federation. https://www.gks.ru

As a result of a complex grouping of indicators on the minimum dispersion (6^2 < 0.9), the maximum median values (Me > 6%) and importance (more than 56%) identified priorities for the development of the Russian information society: "Number of researchers engaged in research and development per 10,000 employed in the economy" (Me = 20.25%); "The share of organizations that had special software to manage sales of goods (works, services) in the total number of surveyed organizations" (Me = 15.38%); "Number of personal computers with Internet access per 100 employees in organizations" (Me = 3.83%); "Percentage of organizations using third party open-source operating systems (for example, Linux) in the total number of organizations surveyed" (Me = 0.34%).

6.2. Definition of a digital economic partner

In order to identify a digital economic partner for the development of the Russian information society, it is necessary to identify countries in which existing practices would provide a stable positive dynamics of the key priority from the above – "Number of researchers engaged in research and development per 10,000 employed in the economy" (Me = 20.25%).

In the ranking of OECD countries and certain countries outside the OECD, stability (6^2 < 0,1) and the maximum of the median values (Me > 10 research./thousand workplaces) total number of researchers per thousand workplaces identified partner countries (Table 2) – Japan (6^2 = 0.02; Me = 10.01research./thousand workplaces), as well as countries outside the OECD – Singapore (6^2 = 0.02; m = 10.24 research./thousand workplaces) and China (Chinese Taipei) (6^2 = 0.04; Me = 12.91research./thousand workplaces).

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Calculation of median values (Me) and dispersion (Ϭ2) of a long-time forecast of real GDP 2020-2060 OECD (OECD data, 2019) revealed the prospects for high volatility in the world, OECD countries and individual countries.

China, showing high median values (Me = 46613240 million dollars USA) long-term forecast of real GDP 2020 – 2060 years, could become a benchmark for the development of the Russian economy (Me = 3995085 million dollars USA), but the high volatility of the Chinese economy (6^2 = 1E+14) is a threat to the instability of the Russian economy (6^2 = 1E+11).

Therefore, it is the acceptable and commensurate digital economic partner of Russia (Me = 3995085 million dollars USA; 6^2 = 1E+11) Japan (Me = 6218262 million dollars USA; 6^2 = 8E+11).

6.3. Comparative advantages and disadvantages of a partnership

Analysis of the dynamics of GDP growth in Russia and Japan revealed the return of leadership positions of the Russian economy in September 2018 after the loss in December 2014. Highest median value (Me = 1.25%) and low dispersion (6^2 = 3.2) growth rate of GDP of Japan relative to Russia (Me = 0.45%; 6^2 = 5.1) indicate the status of the countries. Japan is in 2018 26 places in the world in GDP per capita ($ 36317.74. USA), Russia is 73 places in the world in GDP per capita ($ 9264.27. USA) (Fincan.ru, 2018).

The Russian economy, having a small GDP per capita, can afford high volatility due to income loss, growth in consumer crediting, etc. Japan cannot afford the volatility of the economy. The analysis of dynamics of growth rates of factory output, inflation, and an unemployment rate of Russia and Japan revealed excess:

- more than ten times the median growth rates of factory output in Russia (Me = 1.2%) over Japan (Me = 0.1%) and twenty times the dispersion is 6^2 = 66.18 and 6^2 = 3.51 respectively;
- eight times the median values of inflation in Russia (Me = 4.0%) over Japan (Me = 0.5%) and dispersion is 6^2 = 2.11 and 6^2 = 0.25, respectively;
- less than two times the median values of the unemployment rate in Russia (Me = 5.0%) over Japan (Me = 2.75%), comparable dispersion is 6^2 = 0.08 and 6^2 = 0.07, respectively.

The relatively high median growth rates of factory output in Russia, similar to the median growth rates of GDP, are associated with the high volatility of inflation and a stable unemployment rate. On the one hand, the manipulation of inflation expectations allows to change the amplitude values of the growth rates of factory output and GDP growth in Russia, and on the other, it needs to stabilize the unemployment rate at acceptable values for the developing economy.

The digital economic partnership between Russia and Japan is mutually beneficial. Japan, borrowing the volatile dynamics of the growth rate of the Russian economy, can become a vibration damper. Therefore, Japan, unlike Russia, stimulates the development of the real sector of the economy and is an ideal digital economic partner for the development of Russian industry.

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6.4. Summary analysis

At the end of 2018, Russian GDP increased by 2.3%, which is significantly higher than the previous forecast of 1.5% made in following the results 9 months of 2018. The difference in estimates of GDP growth is due to the fact that in January 2019 FSSS revised radically the dynamics of the amount of construction work for 11 months of 2018 from 0.5% to 5.7% in annual basis. The revision was associated with the inclusion in the total amount of construction work of the third stage of the natural gas liquefaction plant "Yamal LNG", which was completed in 2018 (Papuc, 2019).

Optimistic forecast of GDP dynamics 2019 – 2021 are among forecasting institutions, banks, funds of rating agencies, etc. ("Economist Intelligence Unit", INEF RAS, Standard & Poor's, Moody's, Fitch, European Commission, World Bank, International Monetary Fund, European Bank for Reconstruction and Development, Organisation for Economic Cooperation and Development, etc.) from Ministry of Economic Development (2019 – 1.3%, 2020 – 2.0%, 2021 – 3.1%) and the Central Bank of the Russian Federation (2019 – 2.3%, 2020 – 2.0%, 2021 – 3.0%). Inflation expectations are less than 5%. A high proportion remains: 1) export of fuel and energy products: January-December 2018 - to countries of the far abroad-57.6% and CIS-35.9%; January-April 2019-to countries of the far abroad-69.6% and CIS-35.5%; 2) imports of machinery and equipment: January-December 2018 - to countries of the far abroad-50.6% and CIS-20.5%; January-April 2019-to countries of the far abroad-48.9% and CIS-19.8% (Papuc, 2019).

On the one hand, the main source and, at the same time, the environment of the Russian digital economy is the financial sector, which is developing on the growth: demand for financial services received by both the population and business via the Internet or mobile communication; activity of the regulator; offers – entrance to the market of new financial products and services. On the other hand, new risks appear: infrastructure; economic; social.

The Russian economy is need of Japanese-made products, including to rise in profitability of the primary industry. The Russian economy, having a low level of technological conversion and creating a small GDP per capita, can afford high volatility of economic growth, and Japan cannot afford it.

7. Conclusion

Prospects for the development of digital youth entrepreneurship in Russia under the risk of a global recession are particularly favorable. In the context of globalization of the economy, recessions are almost periodic, occurring every decade and this fact stimulates the development of new forms of development, the latest of which is the digital economy. The digital economy is a way to avoid the consequences of globalization, centralization, and domination of individual economies and their institutions.

The need for the development of international digital economic partnership is associated with the decline of growth rates of world trade and increased global competition against the background of reaching the marginality of developed and developing countries relative to their technological modes. Included in the response fluctuations of economic cycles, split-levels of technological modes of world countries greatly increased requirements to the dynamics of development of the national economy complex.

As a result of ranking OECD countries and individual non-OECD countries by stability and maximum median values of the total number of researchers per thousand workplaces, partner countries – Japan, non-OECD countries – Singapore and China were identified. China, showing high median values of the long-time forecast of real GDP 2020-2060, could become a benchmark for the development of the Russian economy, but the high volatility of the Chinese economy is a threat to the instability of the Russian economy. Japan is an acceptable and comparable digital economic partner of Russia. The digital economic partnership between Russia and Japan is mutually beneficial, as Japan, borrowing the volatile dynamics of the growth rates of the Russian economy, can become a damper of fluctuations, including due to the fact that it stimulates the development of the real sector of the economy. Russia, through the active issuance of high-yield FLB (Federal loan bond) and the purchase of low-yield Treasury of the US government and USD of the US Federal Reserve System, gives rise to bubbles in the financial market.

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