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IMPACT OF DIGITAL TECHNOLOGIES ON SUSTAINABLE DEVELOPMENT OF INTERNATIONAL BUSINESS

The concept of sustainable development of society, which emerged and took shape as a scientific direction at the end of the 20th century, presupposes «development that meets the needs of the present generation without undermining the ability to meet the needs of future generations» (World Commission on Environment and Development, 1987). Sustainable development is based on the achievement of three fundamental goals: economic and social progress and environmental protection. The business sector, including at the international level, usually focuses on economic development. Big business and multinational corporations have recently been paying more attention to solving social and environmental problems, and implementing some projects in these areas. Examples include Archer Daniels Midland, Louis Dreyfus Group, JBS and others. However, many problems remain unresolved. At this time, the economy, the health care system and the social sphere are undergoing significant changes under the influence of the Covid-19 pandemic. One of the factors that has partially helped to reduce the disruption to the usual life cycle of all business processes is the use of information technology. As you know, the Fourth Industrial Revolution, which is currently taking place, is based on the massive introduction of information technologies in industry, automation of business processes and the spread of artificial intelligence [1]. In this regard, the number of Internet users is constantly growing. In particular, according to the International Telecommunication Union (ITU) [2], the number of Internet users from 2010 to 2019 grew by 2 times.

Thus, at the end of 2019, 51% of the world's population had access to the Internet (Fig. 1).

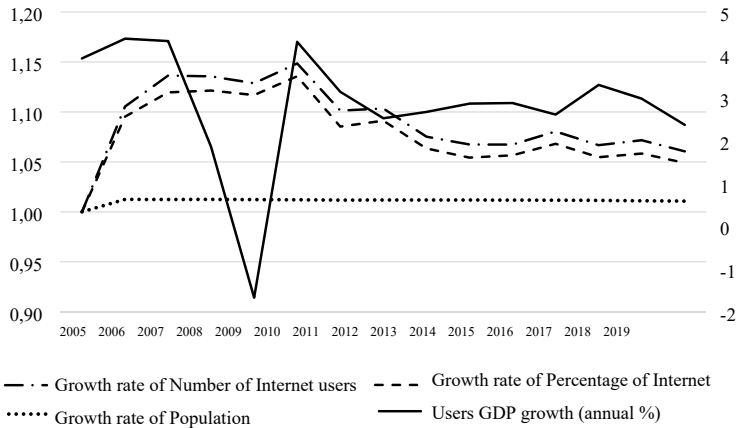


Figure 1. Number of Internet users 2005-2019 [2]

The analysis of statistical data showed that from 2005 to 2010 the growth rate of the number of Internet users and the proportion of Internet users among the entire population increased. Moreover, the growth in the number of Internet users outpaced the growth rate of their share in the total population (Fig. 2). However, since 2010, the number of Internet users has been growing, while the annual growth rate has been declining. This can be explained by the saturation (provision) of the population that uses the Internet, the necessary resource. Since not all population (for example, new-borns and elderly people) use the Internet. At the same time, during the analysed period, the population growth rates practically did not change and averaged about 10% annually.

As seen in Fig. 2, the decline in GDP in 2008-2009 during the global crisis did not lead to a decrease in the number of Internet users. At the same time, as seen in Fig. 3, the share of intangible production (services) has been growing rapidly since 2011, which is considered the benchmark for the start of Industry 4.0. During the crisis period 2008-2009, at the level of the decline in world GDP and the annual

growth rate of this indicator, the annual growth rate of value added in the service sector shows a similar trend. However, the share of intangible production in total GDP is growing and at the end of 2018 reached 65% of GDP.

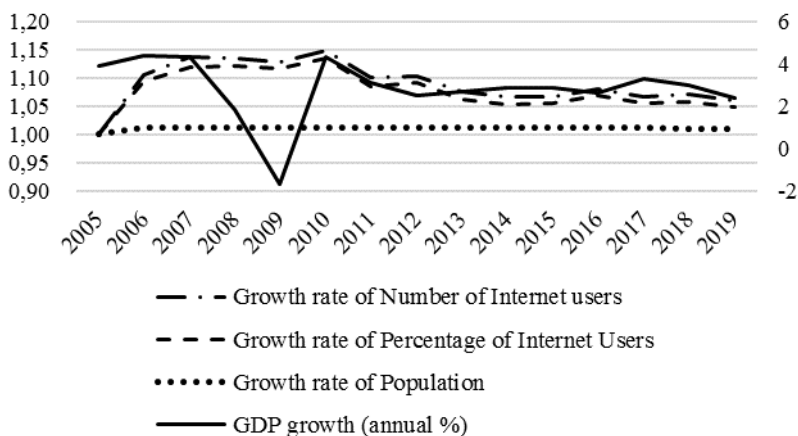


Figure 2. Dynamics of growth in the number of Internet users and population, GDP 2005-2019 (built according to [2; 3])

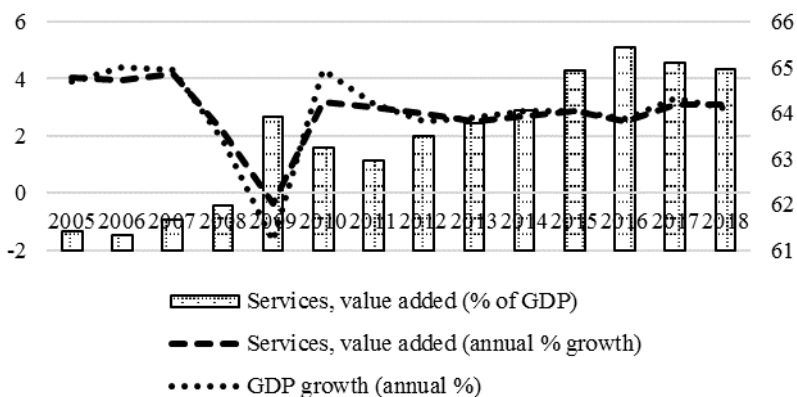


Figure 3. Dynamics of GDP and services growth, 2005-2018 (built according to [3])

A more detailed analysis shows that in the field of intangible production, ICT occupies the largest share. This trend has both positive and negative aspects. On the one hand, this allows you to increase the return on invested capital, increase production efficiency, etc. However, on the other hand, the use of Industry 4.0 technologies, which are based on the use of ICT, leads to a decrease in the need of enterprises for personnel. Automation of production and the use of robotics improves technical, quality and economic performance. However, there is a problem of employment of released personnel due to the introduction of new technologies. As seen in Fig. 4, this problem is complex – along with a decrease in the need of enterprises for personnel (especially low-skilled), with an overall growth in the population, the share of the able-bodied population decreases.

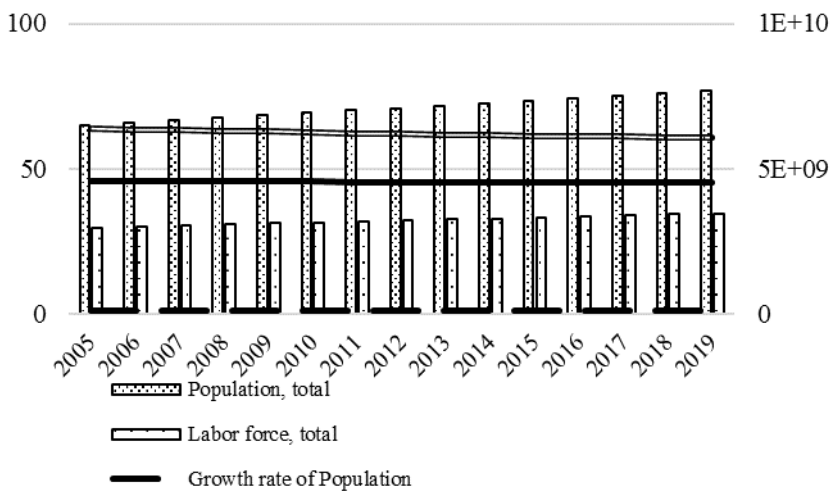


Figure 4. Dynamics of the structure of the population and labour force, 2005-2019 (built according to [3])

The active continuation of this trend will lead to an aggravation of social problems in society, which is fraught with the emergence of conflict situations. Therefore, we believe that the development of a balanced national policy of individual states and the solution of global

problems of sustainable development is an extremely urgent task that requires a systematic approach to its solution at the international level.

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