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INCLUSIVE DEVELOPMENT OF THE COUNTRY IN THE CONTEXT OF DIGITALIZATION: NEW CHALLENGES

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Abstract

The article considers the possibility of using some international indices for assessing welfare from a position of sustainable development, taking into account inclusiveness and in the context of the digital component. Analyzed indexes act as alternative estimates welfare. The comparative analysis was based on the key requirements, such as availability and reliability of the data, the possibility of cross-country comparisons. As a comparative methodology, international composite indices are analyzed that contain a lot of both objective and subjective indicators in one assessment scale. The necessity of measuring well-being, taking into account not only quantitative but always taking into account the qualitative features, without losing the search of man-ecological linkages within each dimension. ICT Development Index is not fully reflecting the level of development of the country's welfare. Digitalization has had a positive impact on the growth of GDP per capita is only after reaching the spread and use of ICT by a certain critical mass. To get a response in the economy from digitalization, a period is needed that organizations need to master new technologies and adapt to them. It is proved that at present the index of inclusive development is more informative than any other indicator. In the future, it can be used as one of the main indicators used for planning the socio-economic development of the country. It also opens up new possibilities for the realization of an inclusive concept of growth and solving social and economic problems in developed and developing countries.

Keywords: Welfare, index, inclusive development, digitization, quality of life.

1. Introduction

The current stage of global economic development is characterized by the significant influence of digitalization. Digitalization of the economy is an inevitable stage of its evolution, not by chance the topic on the agenda at the «G20» meetings, as it changes the model, cost control system. The development of digitalization leads to increased efficiency of the economy and improving people's quality of life. Structural analysis by the Economist Intelligence Unit confirmed that there is a close correlation between ICTs and economic growth in developed countries and that ICTs provide per capita GDP growth. On the one hand, a high level of welfare is demonstrated by a faithful state economic policy, and on the other hand, the modern challenge of building an inclusive society, deployed face-to-face and determining the role of man in this society, are the vital tasks of today. Measurement methods are critical to assessing the potential impact of alternative policy options and allow you to track progress and evaluate the effectiveness of actions taken. Investigate the welfare of the population in the world economy with a single composite indicator is impossible since this category is multifaceted. The digital transformation of the economies of different countries has high expectations in terms of economic growth, improving the quality of life, etc., as well as concerns related to job cuts, increasing inequality, and growing threats to information security. In these conditions, the task of creating the necessary tools to ensure the management of digital transformation processes becomes urgent.

2. Problem Statement

Among the most important factors of endogenous economic growth is the digitalization of all aspects of human life, which, due to artificial intelligence, leads to more efficient use of resources and to ensuring positive GDP growth per capita. Studies in the US and Europe show that investing in ICT helps achieve high growth rates in every sector of the economy (Remache & Belarbi, 2019). Digital technology is changing the existing economic system in all developed countries with traditional processes of production and consumption. Digitalization creates a new reality for governments, people, enterprises, organizations, global markets and provides a new promising growth path for any country (Khalimon, Guseva, Kogotkova, & Brikoshina, 2019). Digitalization accompanies socially significant scientific research and thereby reduces the risks of climate change, lack of drinking water, food, energy, etc. (Guryanova, Korotaeva, & Chedzhemov, 2019). Digital transformation will affect not only the environmental dimension but probably the technical and social (Beier, Niehoff, Ziems, & Xue, 2017). Information and communication technologies (ICT) play an important role in reducing energy consumption and, consequently, to increase the energy efficiency of the economy, contributing sustainable growth (Moreno-Munoz, Bellido-Outeirino, Siano, & Gomez-Nieto, 2016). Research shows that ICT contribute to sustainable development through more efficient management systems, to promote changes in behavior and reduced energy consumption (Bull, 2015). Today, almost all countries aim to increase their competitiveness, and the emphasis is on the development of ICT and digitization. Compared to developed countries, in which the process of creating Industry 4.0 was started earlier and aimed at achieving marketing and social results, developing countries face institutional and financial barriers (Bogoviz, Osipov, Chistyakova, & Borisov, 2019). These trends are observed in the Russian

Federation, China, India, and other BRICS countries. But at the same time, their development is uneven both in the world and subnational levels (Revinova, 2016; Revinova & Lazanyuk, 2018). Over the past thirty years, a host of different alternative indicators for measuring human development, including taking into account the problems of stability and inclusive human development. In some works, the approach corrects the assessment of well-being by using the index as part of the objective-subjective approach (Balashova & Nakhatakyan, 2017). A wide range of new indicators of human development of alternative spread, ranging from comprehensive indicators, such as "social progress index" Michael Porter, to more subjective alternatives, such as, for example, the happiness index, the key components are related to the quality of human capital, information infrastructure, knowledge-oriented entrepreneurship, high technology, and complex business processes.

3. Research Questions

Currently, developed countries have embarked on inclusive development that is, increasing social responsibility concerning their citizens. At the same time, technological progress has a huge impact on all spheres of life, almost all countries have adopted programs or strategies aimed at digitalization and the digital economy. In this regard, some questions arise what, first of all, should be guided by the choice of indicators, what are the main criteria, should we abandon simple indicators and use more complex indexes, and how much does digitalization promote or impede inclusive development.

4. Purpose of the Study

The purpose of this study is to conduct a cross-country analysis of the inclusive development index, welfare index based on per capita GDP and ICT development index (IDI). Based on statistical analysis, identify the impact of digitalization on inclusive development. To identify, based on scientific and statistical data for 2010-2018, positive trends, problems and offer some recommendations for their solution.

5. Research Methods

The information method is used to study the digital economy as a social phenomenon that has an important social entity. This method is productive for finding the necessary information about the subject of our scientific interest. The descriptive method used to describe the special characteristics of the new, socially-oriented model of the digital economy, taking into account the factor of inclusion.

System method used to determine the various aspects of the digitization of their interdependence with the integrated economic system. Structural methods help to clarify the features of the functioning of the digital economy and its impact on inclusive development.

Statistical methods were used and comparative analysis. To analyze the level of well-being and development of inclusive relationships used data on 176 countries in the period 2010 to c 2018. Socio-economic indicators are taken from the World Bank databases. The distribution of countries into groups by their level of development for different indicators was carried out using factor analysis.

6.   Findings

Almost all countries of the world pay much attention to economic growth, but the economic sphere of society regularly faces various crises. Currently one of the major problems is the slowdown in the global economy. According to the World Bank, the average growth rate of world GDP in the period from 2010 to 2018 amounted to 2.5%, and from 1960 to 1970 it was at the level of 5.3% (The World Bank, 2018). The average increase in world trade also decreased, for example, for the period 1980-2011 amounted to 7%, but in 2016 and 2017 it decreased to 1.8% and 4.7%, respectively (Azevêdo, 2018). The imbalance of economic development of different countries, the unequal distribution of natural resources and excessive levels of differentiation of incomes, it becomes a serious problem in the way of sustainable development and global order. Growing inequality restricts access to education for various groups of the population that has a negative impact on the labor market, which is annually filled with manpower of low qualification. Having realized most of its growth potential, the world economic system at the present stage of development of society requires the transformation of the structure of economic relations to create new opportunities for economic growth. Construction and development of an inclusive society, the deployed person to person and the definition of the role of man in this society are the urgent tasks of today. A modern approach based on a combination of the standard features of a modern global economy with the potential of the digital economy can give new horizons worldwide.

In search of solutions to contemporary problems of the concept of inclusive growth, it has been developed. At the World Economic Forum in Davos (World Economic Forum, 2018) adopted a new system of economic development of assessment, which involves the study of development of countries, not only in terms of economic growth (variable and short-term), but the index of inclusive development (R & D index), which also includes the assessment of the justice of society. The index is calculated based on the 12 indicators that are separated from each other by three groups. At the same time, along with the calculations, an analysis of each indicator over the past 5 years is carried out. This makes it possible to identify the main trends in the development of the national economic system. The inclusive development index is calculated separately for the economies of developed and developing countries, which increases the objectivity of the results. As can be seen from the above, an index reflecting a more complete picture of the economic development and can be used as a new reference point necessary for an effective internal policy.

To establish the prospects for using the index in solving economic problems at the national and world levels, it is necessary to compare it with the generally accepted indicator of the level of economic development – with GDP. According to many experts, the use of GDP as the main reference point in the planning of social and economic development of the country at present is incorrect, since the use of this indicator has some limitations. In particular, scientific and technological progress contributed to the creation of fundamentally new types of goods and services, as well as the development of the latest exchange methods. The existing statistical method is difficult, and often impossible to fix the transaction or to provide a valuation of such economic actions. Today, knowledge and scientific developments are an important resource, and the GDP is not able to reflect them in full.

As an indicator of the level of socio-economic development of a country, GDP has certain limitations, since it does not reflect the distribution structure of accumulated wealth and cannot be used as a measure of state prosperity. Also, GDP does not fully take into account environmental and social factors

of economic growth. GDP is not able to adequately measure the level of socio-economic development of the modern state since it ignores the impact of non-economic factors on the economic system and society as a whole. These findings are easily confirmed by statistical data. Thus, the United States for several years a leader in the world in terms of GDP, but it took the 23rd place among countries with developed economies, by the index of inclusive development, which is associated with low rates of inclusion. A similar situation is with GDP per capita. So, if we compare the position of the state with the developed economic system in terms of GDP per capita with its place in the ranking on the inclusive development index presented in the WEF report, we can see the absence of dependence between these two indicators, which is true not only for developed countries, but also for developing including (Table 01).

Table 01. Rating of developed countries by the Inclusive Development Index, GDP per capita and the ICT digital index (IDI) for developed countries

Country	Rating			Country	Rating		
	Inclusive Development Index (2018)	**GDP per capita (2018)**	**IDI (2017)**		**Inclusive Development Index (2018)**	**GDP per capita (2018)**	**IDI (2017)**
Norway	1	3	8	South Korea	16	24	2
Iceland	2	12	1	Canada	17	11	29
Luxembourg	3	1	9	France	18	18	15
Switzerland	4	2	3	Slovenia	19	25	33
Denmark	5	5	4	Slovakia	20	29	46
Sweden	6	6	11	United Kingdom	21	19	5
Netherlands	7	10	7	Estonia	22	30	17
Ireland	8	4	20	USA	23	8	16
Australia	9	7	14	Japan	24	14	10
Austria	10	13	21	Israel	25	22	23
Finland	11	15	22	Spain	26	23	27
Germany	12	16	12	Italy	27	21	47
New Zealand	13	20	13	Portugal	28	27	44
Belgium	14	17	25	Греция	29	26	38
Czech Republic	15	28	43	Россия	19*	66	45

Source: authors according to the World Economic Forum (2018), The World Bank (2018), International Telecommunication Union (2017).
Note: * - a place of the country in the ranking of countries with emerging markets

Meanwhile, global digitalization, technological changes radically change society, the production system, management processes and dictate the need to implement a new model for the development of the state, based on the priority definition of the leading role of modern human capital.

To assess the level of digital development of countries, some indices are used, which are calculated by various international organizations, for example, the Country Readiness Index for a

Network Society (World Economic Forum) and the Knowledge Economy Index (World Bank). The ICT Development Index (International Telecommunication Union) Development Index best describes the state of the industry in a country, taking into account all its sectors. The ICT Development Index has been published annually since 2007 and is a combined indicator characterizing the achievements of the countries of the world in terms of ICT development. The index includes 11 indicators, which are summarized in a single criterion and makes it possible to compare the achievements of the countries of the world in the development of ICT and can be used as a tool for conducting comparative analysis at the global, regional and national levels. The index is calculated on a global level and reflects the changes occurring in countries at different levels of ICT development, so it is based on a limited set of data that can be obtained in all countries at all levels of development with sufficient accuracy. It can be noted that the level of ICT development today is considered one of the most important indicators of the economic and social well-being of the state. On average, the index is growing, there is also a tendency toward convergence of the values of the ICT Development Index between countries, and it is most pronounced among developed national ICT systems. However, analysis of the data in Table 01 shows that today ICT index does not fully reflect the level of development of the country's welfare. IT has a positive effect on the growth of GDP per capita is only after reaching a certain minimum threshold of ICT development. In other words, the distribution and use of ICT must reach a certain critical mass before they begin to have a significant positive impact on the economy. This is consistent with the view that there is a considerable time lag between investments in ICT and making a profit that is the time interval that is necessary for organizations to learn new technologies and to adapt to them.

7. Conclusion

Thus, we can conclude that to assess the level of well-being, an aggregate indicator is needed, including both a quantitative and a qualitative component. IDI index is not yet sufficiently informative to assess the level of welfare as a significant positive impact on the economy it provides a time delay. But it can be used for a significant breakthrough, which is important for developing countries. The index of inclusive development is more informative than any other indicator of assessing the level of socio-economic development of the state. In the future, it can be used as one of the main indicators used for planning the socio-economic development of the country. Using this system of assessment of economic development will help to adjust the domestic policy of some states, which in turn will contribute to international economic integration. It also opens up new possibilities for the realization of an inclusive concept of growth, achieving sustainable economic development and solving social and economic problems in developed and developing countries.

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