

EVALUATION OF THE LEVEL OF INCLUSIVE DEVELOPMENT OF THE UKRAINIAN ECONOMY

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ABSTRACT

The problem towards measuring the level of inclusive development of the national economy is one of the most important and controversial problems the modern scientists faced with in the 21st century. The objectives of the named research are the analysis of the various methods of assessing the level of the inclusive development of countries, defining their main advantages and disadvantages, likewise the development of the universal comprehensive method and its use for the further research on the inclusive development of the Ukraine's economy. The calculation of the integral indicator of the inclusive development of the economy of Ukraine was carried out on the basis of the data of the State Statistics Service of Ukraine according to the author's methodology using the Excel program. The given method helps to reveal the actual asymmetries in the field of the inclusive development, which should become an analytical basis for making the further managerial decisions. To increase the level of the inclusive development of the economy of Ukraine, it is necessary to: ensure the national security and territorial integrity of the country; improve the institutional support for the inclusive development of the national economy; implement an inclusive approach at all levels of the national economy; stimulate the development of the inclusive entrepreneurship; modernize the infrastructure based on the principles of the «universal design»; create conditions for the development of the inclusive education and medicine; stimulate the development of «green», «silver», digital, circular and serial economies.

Keywords: *inclusive development, evaluation of the level of inclusive development, index of inclusive development, inclusiveness index*

1. INTRODUCTION

Within the long period of time, the world scientific community has been actively working on the search for directions, methods, tools and mechanisms for ensuring the economic growth. Trends in the development of the world economy, namely the population aging, rising unemployment, deepening of economic and social inequality, increase of the social integration problems, deterioration of the environmental situation, as well as the rapid development of the scientific and technological progress, digitalization and globalization, forced scientists to admit that only economic vector is not enough to ensure the full development of the state. That is why in 2017, at the 48th World Economic Forum in Davos (Switzerland), it was offered to change

the priorities of the economic policy, which should be reoriented to more effective countermeasures against the insecurity and inequality. In view of this, the main objective of the economic development was the recognition of the sustainable comprehensive progress, which should be accompanied by the growth of the population's income with the simultaneous expansion of its economic opportunities, increase in the level of security and quality of life. This approach is based on the concept of the inclusive development, which is designed to ensure the fair and equal opportunities for all members of society and all sectors of the national economy. The main macroeconomic indicators of the country may reflect the achievement of a high level of economic development, but at the same time a significant part of the population will not be involved into the process of creating GDP, and, accordingly, into its distribution, which leads to the deepening of the economic and social inequality, the growth of the poverty level, the suspension of the improvement of the level of well-being in a large part of the population. In this regard, the need to develop a comprehensive methodology for assessing the level of the inclusive development of the national economy becomes especially urgent.

2. LITERATURE REVIEW

The issues of the inclusive growth and development are highlighted in the scientific works of the foreign researchers namely: Cameroonian economist and director of the Institute of Management and Development of Africa (Cameroon) S.A. Asongu (Asongu S.A. et al, 2017; Asongu S. et al, 2020; Asongu S. and Nnanna J., 2020; Asongu S.A. and Odhiambo N.M., 2020), Professor of Economics, University of South Africa (South Africa) N.M. Odhiambo (Asongu S.A. and Odhiambo N.M., 2020), who, in cooperation with the various scientists studied the different aspects of the inclusive development in the certain regions of Africa; Japanese professor and director of the Institute of Urbanism at Kyushu University (Japan) S. Managi (Managi S., 2019), who studies the relationship between wealth, inclusive growth and sustainable development; Dutch professor of the environment at the University of Amsterdam (Netherlands) J. Gupta (Gupta J. and Vegelin C., 2016), who together with a colleague researched the connection between the goals of the sustainable development and inclusive development; Australian professor of the Center for Inclusive Education at the Queensland University of Technology (Australia) S. Carrington (Carrington S. and Robinson R., 2006; Schuelka M.J. and Carrington S., 2021), who, together with the other scientists, studied the global vectors of the inclusive education and practical tools for its provision; English professor, specialist in the field of inclusive education at the University of Cambridge (UK) M. Ainscow (Ainscow M., 2005; Ainscow M., 2020), who developed the conceptual principles for the development of the inclusive education; Professor in the field of health care, Delft University of Technology (Netherlands) P.J. Clarkson (Clarkson P.J. et al, 2013), who studied the inclusive design technologies and their practical implementation; professor and specialist in the inclusive education at the University of Edinburgh (Scotland) L. Florian (Florian L., 2008; Florian L. and Beaton M. 2018), who, in cooperation with other scientists, researched the inclusive education and inclusive pedagogy; professor of the West Ukrainian National University (Ukraine) O. Dlugopolskyi (Dlugopolskyi O. et al., 2023), who studied the inclusive development of the economy as a tool for overcoming the economic inequality and discrimination; scientist of the Odesa National University of Economics (Ukraine) V. Yankovyi (Yankovyi V. et al., 2022) and professor of the West Ukrainian National University (Ukraine) M. Lyzun (Lyzun M. et al., 2023), who studied the economic prerequisites for ensuring the inclusive development of the national economy, etc.

Large international organizations directly measure the level of inclusive development of countries, including: The Asian Development Bank's (ADB's), which developed a methodology for assessing the inclusive growth of Asian countries (Strategy 2020, 2020), The Othering &

Belonging Institute at the University of California, which recommended the methodology for calculating the inclusiveness index as an indicator for measuring the level of inclusive development of the world countries ([Inclusiveness Index, 2021](#)) and the World Economic Forum, which created the methodology for calculating the index of inclusive development, presented in 2018 in Davos (Switzerland) ([The Inclusive Development Index, 2018](#)). However, these methods are narrowly focused, fragmented and inconsistent. Such a situation necessitates the development and implementation of a comprehensive universal approach to assessing the level of the inclusive development of the national economy, which would allow to analyze it from various sides and in a system with strategic priorities of such development.

3. AIM OF THE RESEARCH

The goal of this research is to analyze the various methods of assessing the level of inclusive development of countries, define their main advantages and disadvantages, as well as develop the author's complex methodology and its use for the research of the inclusive development of the economy of Ukraine.

4. METHODS

Within the frames of the research process, the following methods were used: the approach used in M. Porter's model – for systematization of the indicators chosen to assess the level of the inclusive development of the national economy; economic and mathematical methods – for calculating the integral indicator of the inclusive development of the national economy; correlation-regression analysis and the method of weighted geometric mean - for conducting intermediate and summary calculations; Excel program – for practical implementation of mathematical calculations.

5. RESULTS

We consider the methodology developed by ADB as a part of the implementation of its development strategy until 2020 ([Strategy 2020, 2020](#)) to be the first attempt to assess the inclusive development of the economy. The methodology itself is documented in detail in a special appendix to the above-mentioned strategy, released in 2011, entitled «Framework of Inclusive Growth Indicators» (FIGI) ([Key Indicators for Asia and the Pacific, 2011](#)).

This method is based on three milestones:

1. economic growth and employment opportunities. Rapid, efficient, sustainable economic growth and wide employment opportunities determine the economic prospects for all members of society, involve the surplus of the labor in highly skilled jobs, provide the state with the resources to improve the quality and availability of educational and health services, financing of the social protection system, and creating and developing of infrastructure;
2. social inclusion and equal access to economic opportunities. Social inclusion assumes that all sections of the population, including those in difficult life circumstances, have equal opportunities. Ensuring access to education, medicine and infrastructure facilities for all, without excluding citizens are the main tools of inclusive development;
3. the social protection system, which is designed to support the socially vulnerable sections of the population and help citizens in difficult life circumstances. The special role of the social protection system is to meet the needs of socially vulnerable citizens and persons who, due to circumstances beyond their control, cannot take advantage of the available opportunities.

Inclusive development is based on a system of governance and institutions that promotes the inclusive growth in which all members of society realize their potential and meet their needs.

The inclusive development evaluation methodology developed by ADB includes 35 indicators characterizing: 1) poverty and inequality (income-dependent and income-independent); 2) economic growth and employment; 3) accessibility to the key infrastructure facilities; 4) access to education and health care; 5) access to infrastructure and communal services; 6) equality and opportunities regardless of gender; 7) social protection system; 8) proper public administration.

The presented approach towards the measuring of the inclusive development, although it is quite thorough, has certain shortcomings, in particular: 1) overload of indicators; 2) inconsistency of indicators with the statistical accounting system of the most countries of the world; 3) focus on countries with a low level of socio-economic development; 4) lack of indicators characterizing the state of the environment. Also, the specified method of the inclusive development measuring includes the indicators characterizing the level of ensuring the equal opportunities for the citizens regardless of their gender. But opportunities can be limited not only by gender, but also by age, physical capabilities, religion, nationality, place of residence, etc. Also, the mentioned system of indicators does not take into account the ecological component, which is of exceptional importance for ensuring the inclusive development of the economy and the formation of an inclusive society.

The next attempt to measure the level of inclusive development was the inclusiveness index (II) ([Inclusiveness Index, 2021](#)), developed by the Othering & Belonging Institute at the University of California, which carries out the innovative research in the field of social inequality and marginalization. This index is one of the first to assess the level of social integration of people of different races, religions, genders, sexual orientations and disabilities in such areas as: violence, political representation, income inequality, anti-discrimination legislation, prison conditions, and immigration policy.

Every year, for 7 years now, the index of inclusiveness for selected countries is calculated based on this methodology and published in the corresponding report. In 2016, the data index was calculated for 138 countries, in 2017 – for 120 countries, in 2018 – for 125 countries, in 2019 – for 132 countries, in 2020 – for 172 countries, in 2021 – for 133 countries, in 2022 – for 136 countries ([The Othering & Belonging Institute at the University of California, 2024](#)). The number of countries in the ranking fluctuates annually due to the difficulties in obtaining data for calculating the inclusiveness index.

The annual report, which publishes the results of the calculation of the inclusiveness index, has a unique theme: in 2016 the topic of the report was the global migration crisis, in 2017 – the rise of ethno-nationalism, in 2018 – the sexual violence and sexual harassment and the global water crisis, in 2019 – the role of the social networks to foment the hatred and slander, in 2020 – the COVID-19 crisis, in 2021-2022 – developed and implemented an interactive table that allows users to easily maneuver between countries and states and sort them based on any of six groups of indicators.

Six areas are used to calculate the inclusiveness index, which characterize the inclusion or alienation of the marginalized population groups:

1. violence due to the belonging to a social group, which is a direct indicator of group marginalization and discrimination. The violence experienced by the certain social groups reflects prejudice against them, as well as their group vulnerability. For example, ethnic or religious conflicts that can lead to violence and deaths and even genocide;
2. political representation and participation of citizens in public administration. In democratic societies, the results of the will of numerous ethnic, racial or religious groups are

able to nullify the results of the will of the minorities. This can lead to the low levels of political representation and low participation of minorities in public administration. For example, when women, religious or racial minorities are persistently underrepresented in the elected bodies, this is often a sign of their marginalization. At the same time, the political representation of the minorities among the appointed representatives reflects their marginality to a lesser extent than representation among the elected representatives, because in the case of appointments, the democratic majority does not have a direct vote. For this reason, only the share of elected officials, not appointed, is used in the calculation of the index;

3. income inequality, which is an indicator of the group marginality. This not only reflects the discrimination in the provision of education and health services, investment into the human capital and employment opportunities, but may also indicate discrimination in the private markets and segregation in the social networks. The degree of income inequality in a state does not depend on the size of the economy or the wealth of the nation, but is rather a result of the functioning of political institutions, cultural norms and the law. In other words, income inequality at the group level does not depend on the total size of these incomes, but only on the distribution of this income between groups;
4. anti-discrimination laws that protect the interests of marginalized groups are another direct indicator of institutional inclusion. Anti-discrimination laws that protect the interests of marginalized sections of the population and social groups reflect not only society's commitment to the equality of all its members, but also identify the presence of discriminatory problems that require a political and legal response. For example, legislation that prohibits public and private discrimination based on race, national origin, disability, religion, gender or sexual orientation;
5. imprisonment conditions, which are a vivid example of the marginality and inclusiveness of the various social groups. Criminal law reflects the cultural norms and values of the dominant social groups, and its practical use in the form of imprisonment and other forms of criminal punishment is often associated with the various social prejudices. Even in the absence of discrimination against minorities or marginalized populations, imprisonment conditions reflect the cultural and social prejudices that affect the marginalized groups differently. Imprisonment conditions best show the inclusiveness of the legal institutions. Differentiation of imprisonment conditions between different social groups is an indirect indicator of their cultural perception and social position in society. For especially marginalized social groups, criminal law is an instrument of their social control;
6. immigration policy, which reflects the society's attitude to the marginalized groups and the degree of friendliness of the dominant social group to other groups. Nativism and xenophobia, as a rule, reflect not only the level of openness of a society to the reception of new immigrants, but also the degree of inclusiveness of a society. For example, Uganda has an open refugee policy that has made it the most hospitable country in the world. The US practices a differentiated immigration policy, which is carried out by establishing quotas for many ethnic and racial groups, a general ban on immigration from China and African countries.

Within the framework of each of the directions described above, specific indicators are used: the share of ethnic minorities that do not have a political power; percentage of women elected to parliament; ratio of incomes of women and men per person; percentage of working women under the age of 15; indicator of religious enmity; religious restriction index; the number of laws against discrimination of people with disabilities, etc.

The Inclusion Index (II) ranks countries on the basis of discrimination based on: race, gender, sexual orientation, religion, disability, and the population as a whole. The indisputable advantage of this rating is that, after its establishment in 2016, it is calculated annually despite the multiple difficulties with obtaining and processing information. The dynamics of changes in Ukraine's place in the inclusiveness rating during 2016-2023 is presented in the Table. 1.

Table 1. Inclusiveness Index of Ukraine in 2016-2023

	2016	2017	2018	2019	2020	2021	2022	2023
Number of countries in the rating	138	120	125	132	172	133	136	129
Place in the rating	80	73	85	-	102	106	108	82
Points	35,97	35,21	38,57	-	32,05	53,75	54,54	58,67

Source: Composed by the author on the basis of (Inclusiveness Index, 2021)

As can be seen from the Table 1, in 2023, despite a slight increase in the number of points (from 54.54 in 2022 to 58.67 in 2023), Ukraine significantly improved its position in the rating and moved from 108th to 82nd place. This can be explained by the successful adaptation of Ukraine to the challenges caused by the full-scale invasion of Russia, in particular: the increase in the number of migrants and internally displaced persons, military and civilian casualties, the destruction of social infrastructure facilities, etc. During 2022-2023, many different programs aimed at the adaptation of internally displaced persons to a new place of residence, the rehabilitation of military and civilian victims of the war crimes, and the reconstruction of social infrastructure facilities were launched in Ukraine. These measures contribute to the inclusive development of the national economy; it was reflected in the 2023 rating.

The place of Ukraine in the rating of inclusiveness in 2021-2023 by individual components is shown in the Table 2.

Table 2. Ukraine's place in the inclusiveness rating in 2021-2023 by individual components

Year	Place in rating	Racial identity	Sex	Sexual orientation	Religion	Disability	Level of inclusiveness in general
2021	106	97	77	77	112	92	35
2022	108	100	73	81	115	94	34
2023	82	96	72	70	108	61	36

Source: Composed by the author on the basis of (Inclusiveness Index, 2021)

It is shown that in 2023, Ukraine's position in the ranking of countries by the level of inclusivity in all components of tolerant attitude towards: persons of different racial affiliations improved from 100 to 96th place; persons of different sexes – from 73rd to 72nd place; LGBT people – from 81st to 70th place; persons of different faiths – from 115th to 108th place; persons with disabilities – from 94th to 61st place. At the same time, the position in the general rating of the inclusiveness of society worsened – from 34th to 36th place. This can be explained by the unpreparedness of Ukrainian society for the growth of the number of people with disabilities, which actualizes the need to develop and implement the programs aimed at improving of the social integration of such people.

The following method of the inclusive growth measuring was presented at the WEF in Davos (Switzerland), where the Inclusive Development Index (IDI) was presented by four economists: R. Semans, M. Hanus, J. Corrigan and M. Berk ([The Inclusive Development Index, 2018](#)). This index was developed as an alternative to GDP – the main economic indicator that determines

the country's position in the world. According to the developers, despite the fact that GDP correlates well with the level of employment, it is not able to reflect the expansion of the boundaries of the digital and globalized economy. In conditions where there is a wide variety of goods and services, when a significant number of companies operate across borders, it is difficult to correctly determine the amount of the added value. The growth of the rank-and-file economy increases the number of types of economic activity that are not subject to accounting. The authors also emphasize that it is important to take into account how the GDP is distributed among the country's population, whether it has a middle class, how freedom of speech develops, what level of education is, what the education system is, what life expectancy is, what the health care system is as well as the dynamics of the country's development, etc. It should be noted that the developers of the index of inclusive development do not level the value of GDP, but use it as one of the indicators that determine the index of the inclusive development of the country.

In addition to the estimation of the GDP, this index contains 11 additional parameters. In general, the IDI consists of 12 indicators, which are divided into 3 large groups: 1) growth and development (GDP per capita in US dollars, labor productivity, healthy life expectancy, employment); 2) inclusiveness (income inequality, poverty level, wealth inequality, median income in dollars per day (at purchasing power parity) per person); 3) intergenerational equality and sustainability (net savings, CO2 emissions per unit of GDP, public debt, working-age to non-working-age population ratio). Firstly, three group indexes are calculated, and the final one is calculated as their arithmetic meaning. In this way, the indicator which shows not only the level of production in the country, but also the prospects and quality of life of people is calculated. IDI vividly illustrates how deceptive success can be, which is measured only by the production capacity.

Despite the versatility and performance of this index, it was calculated only twice – in 2017 and 2018. After 2018, this index was not calculated. The dynamics of the change in the place of Ukraine in the rating of the inclusive development of countries during 2017-2018 is presented in the Table 3.

Table 3. The Inclusive Development Index in 2017-2018

	2017	2018
Number of countries in the rating	78	74
Place in rating	47	49
Points	3,67	3,42
Dynamics within the last 5 years	-3,6	-6,8

Source: Composed by the author on the basis of (The Inclusive Development Index, 2018)

As can be seen from the Table 3, within 2 years Ukraine worsened its place in the rating by 2 positions and dropped from 47th to 49th place. The inclusiveness of economic development in Ukraine has decreased by 6.8% over the past 5 years in The Inclusive Growth and Development Report 2017 ([The Inclusive Growth and Development Report, 2017](#)). In the paragraph which is dedicated to Ukraine is emphasized that our country has worsened the value of the index by 3.6 points. It is connected with the military actions in the east, which negatively affect the poor sections of the population, force talented people to leave the country in search of new opportunities for better life.

The analysis of the first group of indicators, which are aimed to assess the growth and development, showed that due to the high level of unemployment, Ukraine took only 51st place in the rating. According to the group of indicators characterizing inclusiveness, Ukraine has a

fairly high rating – overall 17th place and 1st place among developing countries, according to the indicator of evenness of income distribution and low level of poverty. At the same time, according to the index of wealth inequality, Ukraine is in one of the last places (73rd place out of 79 countries). In terms of sustainability of development, Ukraine has very low indicators: the overall 75th place among 79 developing countries, but the ratio of the population of working age and incapacitated age is quite high – 10th place among 79 countries (Zhukovska A., 2019).

Table 4. Value of individual elements of the IDI of Ukraine in 2017-2018

Year	I group of indicators			
	Growth and development			
	GDP per person, USD	Labor productivity, USD	Healthy life expectancy, years	Employment rate, %
2017-2018	2906	15845	64,1	53,9
	II group of indicators			
	Inclusion			
	Income inequality	Poverty level, %	Wealth inequality	Average income, USD
2017-2018	26,3	0,5	90,1	10,2
	III group of indicators			
	Intergenerational level and sustainable development			
	Adjusted net savings, %	Coal Capacity per dollar GDP	Public debt, %	Maintenance ratio, %
2017-2018	1,0	347,0	81,2	45,8

Source: Composed by the author on the basis (The Inclusive Development Index, 2018)

On the basis of the conducted analysis, we can make a conclusion that 47 and 49 places out of 78 and 74 developing countries, respectively, illustrate an unsatisfactory level of inclusiveness of the national economy. In order to further increase of the level of inclusiveness of the Ukrainian economy, the quality of professional training should be improved, bureaucratic barriers to the creation and development of entrepreneurship should be reduced, opportunities for financing the activities of enterprises should be expanded, and the fight against corruption should be strengthened.

The analysis of Ukraine's place in the rating of inclusiveness for 2021-2022 and the rating of inclusive development for 2017-2018 made it possible to identify a number of problems that must be solved on the way to ensure the inclusive growth and development: to form a tolerant attitude towards people of different races and genders, sexual orientation, religion and physical capabilities; overcome inequality in the distribution of income and wealth; increase the level of employment and reduce the level of unemployment; reduce the public debt; win a war.

Among the shortcomings of the mentioned method of the inclusive development assessment, the following one should be noted: 1) the calculation is not systematic, since the index was calculated only in 2017 and 2018; 2) disregarding the political component of the inclusive development, which is an indexer of the importance and value of the civic position of adult members of society; 3) disregarding the ecological component of the inclusive development, which illustrates the state of the environment for the livelihood of the current and future generations; 4) limited interpretation of discrimination, which can occur not only on the basis of gender and age, but also on the basis of religion, nationality, place of residence, and financial and physical capabilities.

For a comprehensive assessment of the current situation in the field of inclusive development of the national economy, we suggest calculating the integral index of the inclusive development of the economy of Ukraine according to the author's methodology. The noted methodology con-

sists of the following stages: 1) determination of a set of indicators for calculating the integral indicator of the assessment of the level of inclusive development of the national economy; 2) combining the selected indicators into the groups to research, consolidate and summarize; 3) calculation of the importance of each of the selected indicators within their groups based on the methodology and the approach used in M. Porter's model and correlation-regression analysis; 4) calculating the importance of each group of indicators in a similar way; 5) normalization of the selected indicators to the level of the base year; 6) determination of the value of each of the normalized indicators by year from the point of view of their importance; 7) calculation of the integral indicator, which characterizes the level of inclusive development of the national economy and analysis of its dynamics.

Table 5. The structure of the integral indicator of the inclusive development of the national economy

<i>I group of indicators: indicators characterizing the economic component of the inclusive development of the national economy</i>	
P _{1.1.}	The share of the population whose average per capita equivalent total expenditure is lower than the actual (estimated) subsistence minimum, %
P _{1.2.}	Share of people whose daily consumption is lower than 5.05 US dollars per PCS, %
P _{1.3.}	The share of the poor who are covered by the state social support in the total number of the poor population, %
P _{1.4.}	The share of total incomes of 40% of the least well-off in all total incomes of the population, %
P _{1.5.}	Ratio of average wages of women and men, %
P _{1.6.}	The ratio of the average size of the pension and the average salary in the economy (with 35 years of insurance experience), %
P _{1.7.}	Employment rate of women aged 25-44 who have children aged 3-5, %
P _{1.8.}	Labor productivity index, %
P _{1.9.}	Employment rate of the population aged 20-64, %
P _{1.10.}	The number of people employed by medium and small businesses, million people
<i>II group of indicators: indicators characterizing the social component of the inclusive development of the national economy</i>	
P _{2.1.}	The share of population expenditure in total expenditure on health care, %
P _{2.2.}	The share of day institutions of general secondary education in which the inclusive education is organized, %
P _{2.3.}	Share of men among teaching staff, %
P _{2.4.}	The share of people who reported that in the last 12 months they personally encountered discrimination based on gender among the total number of appeals to expert councils on issues of discrimination based on gender, %
P _{2.5.}	Coverage of territorial units of Ukraine (regions) with programs to provide affordable housing for various categories of citizens, %
<i>III group of indicators: indicators characterizing the digital component of the inclusive development of the national economy</i>	
P _{3.1.}	The level of coverage of the population by Internet services, subscribers per 100 inhabitants
P _{3.2.}	The share of general secondary education institutions in rural areas that have access to the Internet, %
P _{3.3.}	Share of general secondary education institutions in rural areas in which computers are used in the educational process, %
P _{3.4.}	Share of the population that reported using Internet services in the last 12 months, %
<i>IV group of indicators: indicators characterizing the ecological component of the inclusive development of the national economy</i>	
P _{4.1.}	Volumes of contaminated (contaminated without treatment and insufficiently treated) wastewater discharges into water bodies, million cubic meters m
P _{4.2.}	The share of the rural population that has access to centralized water supply system, %
P _{4.3.}	The share of the rural population that has access to centralized drainage systems, %
<i>V group of indicators: indicators characterizing the institutional component of the inclusive development of the national economy</i>	
P _{5.1.}	The number of normative legal acts revised or adopted with the aim of ensuring the equal rights and opportunities for women and men and preventing discrimination against women and girls, units
P _{5.2.}	Share of women among deputies of the Verkhovna Rada of Ukraine, %
P _{5.3.}	Share of women among deputies of regional councils and local councils of cities of regional significance, %

Source: Composed on the basis of (State Statistics Service of Ukraine, 2024)

To assess the level of the inclusive development of the national economy, a set of 25 indicators was chosen to reflect its multifaceted and branched structure. The selected indicators are grouped into five groups: indicators characterizing the economic, social, digital, environmental and institutional components of the inclusive development of the national economy. This list includes the indicators calculated by the State Statistics Service of Ukraine. The structure of the indicators chosen to assess the potential of the national economy in the field of the inclusive development is presented in the Table 5.

To estimate the value of each of the mentioned indicators within their groups, a methodology based on the approach practiced in M. Porter’s model and correlation-regression analysis, which allowed to evaluate them both individually and collectively was used. At the beginning, we can observe tables which are compiled for each group, in which normalized indicators were entered. Correlation-regression analysis was used to determine their mutual influence. Based on the obtained results, the importance of each of the selected indicators for the inclusive development of the national economy within its groups was determined.

The calculation of the importance of indicators characterizing the economic component of the inclusive development of the economy of Ukraine is presented in the Table 6.

In the Table 6, it can be seen that the greatest importance among the indicators characterizing the economic component of the inclusive development of the national economy are: the share of the poor people who are comprehended by the state social support in the total number of the poor population – 0.34060977 and the share of the population whose average per capita equivalent aggregate expenditure is lower than the actual (estimated) living wage and – 0.32286798. At the same time, the least important are: the number of employees in the medium and small businesses – 0.00884338 and the share of people whose daily consumption is lower than 5.05 US dollars per PC – 0 .0430795.

The calculation of the importance of indicators characterizing the social component of the inclusive development of the economy of Ukraine is presented in the Table 7.

In the Table 7 it can be seen that the greatest importance among the indicators characterizing the social component of the inclusive development of the national economy are: the share of full-time general

Table 6. Calculation of the importance of indicators of the economic component of the inclusive development of the economy in Ukraine

	$P_{1,1}$	$P_{1,2}$	$P_{1,3}$	$P_{1,4}$	$P_{1,5}$	$P_{1,6}$	$P_{1,7}$	$P_{1,8}$	$P_{1,9}$	$P_{1,10}$	Geometric mean	Priority vector
$P_{1,1}$	1	11,54	1,91236	17,78965	2,91013	8,18088	6,5287608	6,31528569	15,174	23,39	6,510003	0,32286798
$P_{1,2}$	0,08668	1	0,13096	2,33234	4,23006	0,746898	0,5645064	1,26345533	1,7389	2,357	0,868614	0,0430795
$P_{1,3}$	0,52291	7,636	1	30,83607	4,23006	8,006759	3,9363899	21,2170576	25,04	26,76	6,867731	0,34060977
$P_{1,4}$	0,05621	0,429	0,03243	1	1,52382	0,515654	2,8544194	45,75	0,7873	1,584	0,794324	0,03939503
$P_{1,5}$	0,34363	2,47	0,2364	2,775956	1	3,444119	1,1594448	2,31383577	35,466	1,2	1,714144	0,08501414
$P_{1,6}$	0,12224	1,339	0,12489	1,939284	0,29035	1	1,7183684	59,0535714	2,8607	4,421	1,309006	0,06492104
$P_{1,7}$	0,15317	1,771	0,25404	0,350334	0,86248	0,581947	1	2,77130628	10,056	35,02	1,280245	0,06349461
$P_{1,8}$	0,15835	0,791	0,04713	0,021858	0,43218	0,016934	0,3608407	1	22,562	22,85	0,421206	0,02088999
$P_{1,9}$	0,0659	0,575	0,03994	1,270188	0,0282	0,349562	0,0994428	0,04432133	1	3,104	0,219466	0,01088455
$P_{1,10}$	0,04276	0,424	0,03736	0,631451	0,83333	0,226187	0,0285561	0,04376731	0,3222	1	0,178309	0,00884338
The sum of the geometric mean											20,16305	1

Source: Authors’ calculations

Table 7. Calculation of the importance of indicators of the social component of the inclusive development of the economy in Ukraine

	$P_{2.1}$	$P_{2.2}$	$P_{2.3}$	$P_{2.4}$	$P_{2.5}$	Geometric mean	Priority vector
$P_{2.1}$	1	0,164	3,41077	0,310333	0,98424	0,702445	0,086383
$P_{2.2}$	6,09145	1	18,5348	1,546959	5,19307	3,904111	0,4801072
$P_{2.3}$	0,29319	0,054	1	0,084774	0,28578	0,207344	0,0254981
$P_{2.4}$	3,22235	0,646	11,796	1	5,37526	2,655619	0,3265742
$P_{2.5}$	1,01601	0,193	3,49919	0,186038	1	0,662229	0,0814375
The sum of the geometric mean						8,131748	1

Source: Authors' calculations

Secondary education institutions in which the inclusive education is organized – 0.4801072 and the share of people who reported that in the last 12 months personally encountered discrimination based on the gender among the total number of appeals to expert councils on issues of discrimination based on gender – 0.3265742. At the same time, the least important are: the share of men among pedagogical workers – 0.0254981 and the coverage of territorial units of Ukraine (regions), programs to provide the affordable housing for the various categories of citizens – 0.0814375.

The calculation of the importance of indicators characterizing the digital component of the inclusive development of the economy of Ukraine is presented in the Table. 8.

Table 8. Calculation of the importance of indicators of the digital component of the inclusive development of the economy in Ukraine

	$P_{3.1}$	$P_{3.2}$	$P_{3.3}$	$P_{3.4}$	Geometric mean	Priority vector
$P_{3.1}$	1	1,031	0,98786	0,408587	0,80327	0,191927
$P_{3.2}$	0,96949	1	0,66726	0,402763	0,71445	0,170706
$P_{3.3}$	1,01229	1,499	1	1,124349	1,14282	0,273058
$P_{3.4}$	2,44746	2,483	0,8894	1	1,52472	0,364308
The sum of the geometric mean					4,18526	1

Source: Authors' calculations

In the Table 8, it can be seen that among the indicators characterizing the digital component of the inclusive development of the national economy, the most important are: the share of the population who reported that they used Internet services in the last 12 months – 0.364308 and the share of the general secondary education institutions in the rural areas, in which computers are used in the educational process – 0.273058. At the same time, the following are the least important: the share of the general secondary education institutions in the rural areas that have access to the Internet – 0.170706 and the level of the population with Internet services – 0.191927.

The calculation of the importance of indicators characterizing the ecological component of the inclusive development of the economy of Ukraine is presented in the Table 9.

Table 9. Calculation of the importance of indicators of the ecological component of the inclusive development of the economy in Ukraine

	$P_{4.1}$	$P_{4.2}$	$P_{4.3}$	Geometric mean	Priority vector
$P_{4.1}$	1	119	345,18	34,5083	0,98672
$P_{4.2}$	0,0084	1	7,06519	0,390061	0,01115
$P_{4.3}$	0,0029	0,142	1	0,074292	0,00212
The sum of the geometric mean				34,97266	1

Source: Authors' calculations

In the Table 9, it can be seen that among the indicators characterizing the ecological component of the inclusive development of the national economy, the volume of discharges of polluted (polluted without treatment and insufficiently treated) wastewater into water bodies has the greatest value – 0.98672, and the smallest – the share of the rural population, which has access to the centralized drainage systems – 0.00212.

The calculation of the importance of indicators characterizing the ecological component of the inclusive development of the economy of Ukraine is presented in the Table 10.

Table 10. Calculation of the importance of indicators of the institutional component of the inclusive development of the economy in Ukraine

	$P_{5.1}$	$P_{5.2}$	$P_{5.3}$	Geometric mean	Priority vector
$P_{5.1}$	1	8,444	12,1587	4,68248	0,82755
$P_{5.2}$	0,11843	1	2,25866	0,644323	0,11387
$P_{5.3}$	0,08225	0,443	1	0,331452	0,05858
The sum of the geometric mean				5,658255	1

Source: Authors' calculations

In the Table 10, it can be seen that among the indicators characterizing the institutional component of the inclusive development of the national economy, the number of normative legal acts revised or adopted with the aim of ensuring the equal rights and opportunities for women and men and preventing discrimination against women and girls has the greatest value – 0.82755, and the smallest – the share of women among the deputies of the Verkhovna Rada of Ukraine – 0.11387.

As a result of the conducted research, it was found out that the hierarchy of the level of influence of certain groups of indicators on the level of the inclusive development of the economy of Ukraine in descending order is as follows: 1) economic component – 0.3488629; 2) social component – 0.2172946; 3) digital component – 0.18223; 4) ecological component – 0.1102802; 5) institutional component – 0.1102802 (Table 11).

Table 11. The interaction of different groups of indicators on the level of inclusive development of the economy of Ukraine and the level of their priority

	Economic component	Social component	Digital component	Ecological component	Institutional component	Geometric mean	Priority vector
Economic component	1	4	1,5	2	2	1,888175	0,3488629
Social component	0,25	1	2	1,5	3	1,176079	0,2172946
Digital component	0,66667	0,5	1	1,4	2	0,986296	0,1822300
Ecological component	0,5	0,667	0,71429	1	1,1	0,764942	0,1413322
Institutional component	0,5	0,333	0,5	0,909091	1	0,596878	0,1102802
The sum of the geometric mean						5,41237	1

Source: Authors' calculations

The conducted calculations allowed to estimate the integral indicator of the assessment of the inclusive development of the national economy in 2015-2022 (Table 12).

Table 12. Dynamics of the integral indicator of the inclusive development of the national economy and its constituent elements in 2015-2022

	2015	2016	2017	2018
Economic component	0,349	0,36	0,34557221	0,336
Social component	0,217	0,234562	0,52124932	0,624
Digital component	0,182	0,204611	0,21520837	0,221
Ecological component	0,141	0,11333	0,16107121	0,154
Institutional component	0,11	0,140701	0,384067	0,323
Intergal component	1	1,053203	1,62716811	1,658

	2019	2020	2021	2022
Economic component	0,296	0,302519	0,282205	0,287279
Social component	0,814	0,877181	1,009523	1,009257
Digital component	0,234	0,247684	0,255628	0,249728
Ecological component	0,119	0,084495	0,087844	0,061214
Institutional component	0,423	0,759775	2,310187	1,367143
Intergal component	1,887	2,271654	3,945386	2,974622

Source: Authors' calculations

The analysis of the dynamics of the integral indicator of the inclusive development of the national economy in 2015-2022 showed that until 2022 it had a steady upward trend. But Russia's military aggression against Ukraine pushed the country back almost to the level of 2020. The situation is explained by the fact that due to the war, a large part of the population was forced to leave the temporarily occupied territories and the territories of hostilities, residential and infrastructure facilities were destroyed, a significant part of the military and civilians were seriously injured, the general standard of living of the population decreased and the level of poverty increased likewise the ecological situation has seriously deteriorated. All this became a serious challenge for the management system of inclusive development of the national economy.

The noted methodology allows to fully assess the level of inclusive development of the national economy from the standpoint of its economic, social, environmental, digital and institutional components. It allows you to identify the actual asymmetries in the field of inclusive development, which becomes an analytical basis for making the further management decisions.

6. DISCUSSIONS AND CONCLUSIONS

The conducted analysis of the methods for assessing the level of inclusive development of national economy showed their narrowness, fragmentation and inconsistency. On the basis of the identified advantages and disadvantages, the author's methodology for assessing the level of inclusive development of the national economy from the standpoint of its economic, social, environmental, digital and institutional components is offered. As a practical test of this methodology, an integral indicator of the level of inclusive development of the economy of Ukraine was calculated. The identified asymmetries made it possible to determine the ways to increase its level: ensuring the national security and territorial integrity of the country; improvement of the institutional support for the inclusive development of the national economy; implementation of an inclusive approach at all levels of development of the national economy; stimulating the development of the inclusive entrepreneurship; infrastructure modernization based on the principles of the «universal design»; creation of conditions for the development of inclusive education and medicine; ensuring the implementation of an inclusive approach in youth, cultural and religious policies; stimulating the development of «green», «silver», digital, circular and serial economies; ensuring the general social integration of society.

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