Висновок. Запропонований підхід до класифікації змін на підприємстві дозволить систематизувати зміни, правильно підбирати засоби їх подолання, формувати базу даних змін і скоротити строки по їх виявленню.

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DEVELOPMENT OF INTEGRAL ECONOMICS IN COUNTRIES, REGIONS AND CITIES

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Summary. The integral economics is named the economics of a man. A (man) human being, satisfaction of her/his rights and necessities, increase of welfare, quality and duration of life is the main figure in the integral economics of man. The task is of the research is to determine principles of this new type of economics in which to improve the quality and length of life of each person are integrated, that is, extended to the new, higher level, as soon as possible all the achievements of science and practice around the world.

There are two absolutely new methods offered in this paper - method of balances of indexes-indicators and the method of the integral system;

The new concepts and methods of integral economics of man have been developed in this paper first time: integral systems of development of a human being, the balance of indicators of economic and social development of a human being. Every without exception major factor of development of integral economics of man has been integrated firstly in the integral systems, in integral balances of indicator: human factors, productivity, financial, manager's and informative factors, factors of economic freedom, scientific and technical advance, consumer demand and supply, factors of quality of life, number of lives and life time of a human being.

The developed systems can be applied on any level – international, national or on a micro level.

Keywords: integral economics, integral balances of indicators, economic development, social development, integral development of a human being.

Problem statement. Presently there are difficult processes in the integral economics of man. Economic development of a many countries was slowed; everywhere there is unemployment, price advance, inflation of money.

Interest to the new, effective integral economics increases sharply in these conditions. Life of everyone, growth of its quality and productivity must become the primary purpose of integral economics. The integral economics is named the economics of a man. A (man) human being, satisfaction of her/his rights and necessities, increase of welfare, quality and duration of life is the main figure in the integral economics of man.

The unsolved components of the problem and the task of research. The integral economics of man (integral human economics) – this is a new type of economics in which to improve the quality and length of life of each person are integrated, that is, extended to the new, higher level, as soon as possible all the achievements of science and practice around the world.

The analysis of researches and publications, applied methods. Integral econonics unites techniques and practices of different disciplines. The next methods are most often used: 1) graphic methods; 2) methods of expert evaluations, 3) methods of dispersible, factor and component analysis; 4) matrix methods; 5) methods of rows of dynamics; 6) methods of programming; 7) methods of fundamental and technical analysis of financial information; 8) the cost-output method of a Nobel prize laureate in integral economics, 1973, Leontief, W.W.(1906-1999) [1], 9) methods of econometric analysis of economics; 10) 11) the methods of econometric analysis (the analysis method, which is based on a forecasting model LSEM of a Nobel prize laureate in economics Klein, L.R.[2]; 11) the methods of financial data analysis which are based on models ARCH of Nobel prize laureates, 2003, Engle, and R.F. Granger, C.W. [3] and other methods of econometric analysis; cliometric methods of analysis of economic history of Nobel laureates on the economics of Robert Fogel [4] and Douglas North [5]; 13) the methods of computer virtual experimental economy analysis (the methods of virtual models analysis of a Nobel prize laureate in economics, 2002, Smith, V.L. [6]; 14) methods of rational expectations of people of Nobel on an economics laureate Robert Lucas [7]; 15) methods of effective economic and social policy of Nobel on an economics laureate Paul Krugman [8], and also great number of other methods of research of economics.

The research. Integration of different knowledge is one of major methods of cognition of outward things. Yet the great ancient Greek thinker Aristotle integrated in the encyclopaedic working all knowledge of the modern to him ancient world. The largest thinker of Ancient China Confucius underlined that in the cognition of outward things he "only linked everything together".

The integral system is a complex of the organically associated, purposefully formed and used elements, local systems which are intended for the solving of major problems of economic and social spheres of life of a human being.

The recommended integral system (Si) integrates all integral systems which are needed for effective development of an economy:

$$Si = \{\{S1\} \to \{S2\} \to \{S3\} \to \{S4\} \to \{S5\} \to \{S6\} \to \{S7\} \to \{S8\} \to \{S9\} \to \{S10\} \to \{S11\} \to \{S12\} \to \{S13\} \to \{S14\} \to \{S15\}\}, \tag{1}$$

where Si is the integral system of effective development of economy; {S1},{S2}, ...,{S15} are fifteen integral systems of the single integral system of effective development of economy; {is a sign of great number of elements in every system (including the great number of intercommunications of elements, great number of properties, intervals); → sign of direction (order, vector) of development and use of each of 15 integral systems.

We describe each of the 15 integral systems:

1. {S1} is the system of goals. This is the first in importance and in the sequence of development local system, which is necessary for efficient development of an economy.

2. {S2} the system of applied resources. This is the second, in the order of development, local system of the single integral system.

3. {S3} – the system of limitations. When solving any problem, it is essential to assign limiting values of available capacities (financial, legal etc.).

4. {S4} the system of priorities. There are priorities in selection of goals, resources, types of goods, directions of financing etc.

5. {S5} – the system of information.

6. {S6} the system of obtained information analysis.

7. {S7} the system of personnel professionalism level. This system integrates the level of economic development provision with necessary knowledge and skills of personnel.

8. {S8} the system of legal (juridical) development support of efficient human development.

9. {S9} the system of psychological support of efficient human development. For example, support of psychological compatibility.

10. {S10} the system of initial programs (plans) and forecasts for efficient development of human economy.

11. {S11} the system of trial implementation of developed programs and actions for efficient development of economy.

12. {S12} the system of final optimized programs and actions. This system integrates, generalizes results of two previous systems - the system of initial programs {S10} and the system of trial implementation {S11} on new, improved level.

13. {S13} the system of implementation. This system integrates managerial, financial, juridical and other actions, which are directed to implementation of final projects, programs, forecasts and actions for efficient development of human economy.

14. {S14} the system of control over realization of assigned goals (results) in development and implementation of final projects, programs, forecasts and actions for efficient development of human economy.

15. {S15} the system of results. Obtained results are fixed as a system of executed targeted indicators of economic and social efficiency of human economy development.

Every subsequent integral system integrates the results of all previous integral systems of the single integral system (1):

$$\{S1\} \rightarrow \{S2\} \rightarrow \{S3\} \rightarrow \{S4\} \rightarrow \{S5\} \rightarrow \{S6\} \rightarrow \{S7\} \rightarrow \{S8\} \rightarrow \{S9\} \rightarrow \{S10\} \rightarrow \{S11\} \rightarrow \{S12\}, \qquad (2)$$

Where → is a sign of direction of order of development, integration and use of every integral system.

The integral system (1) includes all 15 major integral systems, which are needed for effective development of economy of a country, a region, a city, an economy of a company, an organization etc.

The integral systems can be used in any sphere or a form of activity for the solving of problems of effective development of countries, regions, cities, companies, organizations etc.

Effective development of an economy means effective development of integral economics of man first of all. There are major components of integral economics of man: 1) natural resources; 2) produced resources (including material, technical, technological, labour and financial resources); 3) production and realization of values; 4) consumption of values; 5) life of a human being (number of lives, quality of life, duration of life).

Let's take the most essential summarizing indicators for each of component parts of integral economics of man. Development of integral economics of man is an extraordinarily complicated process which can be fully described only through the system of indicators.

We name the general indicator which integrates all systems of indicators of effective development of integral economics of man the indicator of integral development of economies (Is). The major having a special purpose indicators of economic and social efficiency of development of economies are used as local goals of development of economies.

It is rational to select for the factor "natural resources" such indicators per capita as: 1) agricultural land resources (I1); 2) forest resources (I2); 3) water resources (I3); oil resources (I4); gas resources (I5); 6) mineral products, except oil and gas, that which coal, slates, ores etc. (I6).

Factors "intangible capital" and "tangible assets" are taken into account in SNA standards of UN (SNA of UN), and also in all institutional units accordingly to accounting standards. The importance of these factors for generation of goods and services is universally recognized. These indicators per capita are marked as (I7) and (I8).

Monetary factors - investments, taxes, and gold reserves have enormous role in development of economies. Money and gold reserves are the most important and liquid financial assets for all countries, banks, organizations and individuals. Indicators of investments, taxes, and money and gold reserves per capita are marked as (I9), (I10), (I14).

Thereby, all economic development factors, which are impossible to eliminate and to measure, have been taken into account as their final result – the productivity growth per capita (as indicator I13).

Factor "labor" participates in wealth generation in two ways: 1) as a quantity of used labor. Used labor and productivity of labor per capita are presented as two the most generalizing indicators: a part of employed population per capita (I11) and GDP per capita (I13). The repu-

table "economic freedom index" of "Heritage foundation" is applied to evaluate this factor (I12).

The system of human development priorities {S4} takes into consideration the importance of an every factor and an every system. The most important factor in integral system of indicators is human life (right to life) itself. This right conforms to human rights hierarchy. Right to life is presented with two indicators, which are widely used in UN: 1) population size (quantity of human lives), I25; 2) average life expectancy (quality of life, what reflects achievements in medicine, safety, living conditions etc.), I26. The consequent in priority level is the most important factors of human life quality. Let's integrate a prevalent practice of priorities in satisfaction of legal final individual needs of a human being. As a result, we are coming to the conclusion about reasonability of use the following indicators per capita: 1) incomes indicator – GDP (as full sum of primary incomes) per capita (I15); 2) housing indicator (I16); 3) food consumption indicator (I17); 4) clothing and footwear consumption indicator (I18); 5) passenger car quantity indicator (I19); 6) indicator of informatization level (a part of people, who use Internet), (I20); 7) knowledge level indicator (as it is defined in human development index, UN), (I21); 8) indicator of public consumption (medicine, education, culture, defense etc), (I22), which is defined accordingly to the methodology of GDP calculation, as final consumption of public agencies and organizations per capita; 9) indicator of quantity of innovative production (innovative production per capita excluding costs in other balance sheet items, (I23); indicator of tourism development level (with data of World tourism organization), I24.

And finally, as a system of results {S14}, the system of selected 26 indicators of actual results of economic and social development of a human has been applied and also three absolutely new summarizing indicators: 1) of integral indicator of economic efficiency of development of a man (I_{ED}); 2) integral indicators of social efficiency of development of a man (I_{SD}); 3) integral indicators of general efficiency of development of a man (I_S).

New integral system of 29 indicators integrates in the single system of European economy' efficient development not only traditional factors of GDP growth, but such the most important factor of human economy, as natural resources efficient usage (I1, I2, I3, I4, I5, I6), the factor of economic freedom (I12), factors of quality life and life expectancy growth levels ((I16, I17, I18, I19, I20, I21, I22, I23, I24, I25, I26). Actually, all this factors are already considered as factors of efficient economic development long time ago. However until now all these factors are used not effectively, as their influence is not taken into account, not estimated and not stimulated in the single integral system of effective development of integral economics. Still thousands of other calculated indicators do not allow choosing the most effective way of development.

We consider development of world integral economics of man. All the resources of human life (natural and produced resources) are integrated and balanced with the necessities of her/his life (with the produced and consumed values, with the number of lives and average time of life) in the integral economics of man. For effective development of an economy, from one side, resources are needed, and from other side the effective use of these resources on satisfaction of eventual necessities of a human being is also needed. Obviously, that development of economy, economic factors is a resource for satisfaction of eventual individual necessities of everyone. Therefore all resources are taken into account as economic indicators, and the use of these resources - as social indicators. Two equal parts are balanced in all balances: 1) the used resources (they are integrated with economic indicators); 2) the use of these resources (the use of resources is integrated with social indicators).

In accordance with it all indicators are subdivided into two equal groups: 1) indicators of resources of development of integral economics of man (economic indicators) - 50%; 2) indicators of the use of these resources (social indicators) - 50%. 100% is the sum of weight of all indicators.

Such balancing of two parts of any balance (used resources and use of these resources) fully corresponds to world practice and theory of the use of all balances and budgets of the countries, all balances and accounts of accounting, and also national accounts of world SNA of UN. In turn, the resources of development of a human being are subdivided into two parts: 1) the non produced resources (natural resources); 2) produced resources. There are the non produced non financial assets and produced assets on terminology of SNA of UN. Natural resources are a resource for creation of all produced resources. All produced resources cannot exist in general without natural resources. The value of nature, ecology for life of a human being became obvious last years. Natural resources are primary, initial for all produced resources in the process of development of a human being.

Because of awareness of value of natural resources for life of a human being and fundamental impossibility of elimination of them in every type of the created resources, it is ra-

tional accordingly to a probability theory to subdivide all resources (50%) into two equal parts: 1) the not produced resources - 25%; 2) the use of these resources (produced resources) - 25%. These two parts are balances of resources: the not produced resources (25%) = to the produced resources (25%). All produced resources (25%) are subdivided by analogy into two parts: 1) resources for creation of the added GDP and savings (gold reserves) - 12,5%; 2) the use of these resources (produced added GDP and gold reserves) - 12,5 %.

In order to avoid the duplication of influence of the same factors (investments and taxes) in balance of resources a new index is determined as the added GDP which is GDP minus all investments and taxes, which is taken into account independently and which is a resource for creation of GDP.

Gold reserves which are the most essential liquid and real financial asset are accepted as financial savings, in difference of a speculative emission capital.

All results of the use of resources of an integral economy of man (50%) are subdivided into two parts: 1) results of satisfaction of eventual individual necessities of a man, which are a resource for life of a human being, - 25%; 2) the use of these resources for life of a human being (for providing of amount of lives of people and average time of life) - 25%. Analogical character has a balance of all profits and charges of a human being (25%): 1) profits - 12, 5%; 2) charges - 12,5%. Weight of all other factors of resources and use of resources is determined, coming from their money evaluation in national wealth and for simplification of calculations it is done in an equal stake. All possible errors of measurements and weighing of every factor are limited with the maximum values given above: a 1) integral balance (50% resources = 50% use of these resources); 2) balances of resources (25% of the not produced resources = 25 % uses of these resources); 3) balances of the produced resources (12,5% resources of creation of the added GDP and gold reserves = 12,5% use of these resources); 4) balance of satisfaction of necessities of a human being (25% resources for life of a human being = 25% use of these resources); 5) balance of profits and charges of a human being (12,5% profits = of 12,5% charges). Thus, all possible errors of measurements and weighing of indicators which could appear because of the lack of necessary information are minimized. Integrating all major factors, priorities and got results, it is possible to develop, for an example, integral balance of development of world integral economy of man.

It is evaluated on data of international organizations, such as United Nations, International Money Fond etc.

The new method of research of integral economics is named by us as the method of balance of indicators. In this method, economic indicators are balanced with the social indicators of development of economy. First time, the new method of balance of indicators was used in 2010 for the evaluation of efficiency of work of companies in our textbook of "Statistics".

Integral index of a human development is based on a formula of weighted arithmetic average.

$$I_s = \frac{\sum_{i=1}^{n}(Ix_i Wi)}{\sum_{i=1}^{n} Wi}$$

(3)

Where I_s - Integral index of a human development in percents;

Ix_i - The most important indicators of social and economic development of a human being;

Wi - Weights of indicators.

Accordingly to the data of international organizations [10-17] the meaning of Integral index of a human being development in 2013 was 100,81 %.

The indicator shows that the efficiency of development of world economy in 2013 as compared to 2012 have risen on 0,81 %. The analogical indicator of integral efficiency of development of world economy for all period from 2000 for 2012 (a base of comparison is data of 2000) was 124, 8 %.

Integral efficiency of development of world economy for all period from 2000 to 2013 have risen on 24, 8 %.

Integral indicators (Is) summarize in the value all major final results of economic and social development of world economy of man for investigated periods.

The efficiency of development of two major components of integral development of the world economy is determined analogically:

1. Efficiency of economic development of world economy (efficiency of economic development of a human being);

2. Efficiency of social development of world economy (efficiency of social development).

Efficiency of economic development of world economy is determined through the integral indicator of economic development (I_{ED}), and social development - through the integral indicator of social development (I_{SD}). Weight of each of these indicators is 50% in accordance with balance of indicators. We measure this weight in the traditional 100-percent scale of evaluations. The integral indicator of economic development of world economy in 2013 as compared to 2012 is calculated using data of balance of indicators: $I_{ED\ 2013} = \Sigma(I_{xi}W_i)/50) 2 = 100,27\%$.

An indicator shows the growth of economic efficiency of world integral economics only on 0, 27 %.

The integral indicator of social development of world economy is equal: $I_{SD\ 2013} = \Sigma(I_{xi}W_i)/50) 2 = 101,92\%$

The increase of social efficiency of world economy was only 1,92%.

Analogical indicators for the whole period from 2000 to 2012 are: Ied 2013/2000 = 120,7 % и Isd 2013/2000 = 133,95 %.

Results. Let's generalize main features of integral economics of man. The following new concepts and methods are the most important components of integral economics of man: integral systems of efficient development of economics of man; integral systems of indicators of all resources for development of integral economics of man (I1-I14) and efficiency of use of these resources (I15-I26), which firstly selected and firstly developed on the base of analysis of writings of the biggest scientists and all available informational resources; integral balances of indicators of efficient development of economics of man; new types of efficiencies: integral efficiency of all economic and social development of integral economy of man (I_S), integral efficiency of economic development (I_{ED}), integral efficiency of social development (I_{SD}).

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