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Key words: socio-economic conditions of territories, methods of appraising socio-economic conditions, sustaining stable socio-economic development of regions, key indicators for complex appraisal of the level of regional potential, global competitiveness.

Abstracts: The article focuses on stable development of territories as well as theoretical and methodical analysis aimed at socio-economic conditions of regions. Moreover, the author provided insight into essence of integral indicators used for appraising regional capacities.

There have been developed recommendations for comparing complex appraisal methods of regional potentials, and on the base of their comparison to determine group of indicators for appraising socio-economic potentials of national territories

Analysis of available methods of analyzing socio-economic and innovation potential of territories

Introduction

Deepening of the globalization process can make a sufficient impact on the national economy development as well as raising competitiveness of the goods and services produced at different regions of our country. It should be noted that simultaneously with the positive impact on the overall economy, negative impact can be also observed. Presence of the current condition requires assessment of all interconnected parameters from the quantitative aspect, mitigating the factors of the negative impact and providing its performance in compliance with the normative standards.

As the analysis of the socio-economic changes of our country illustrates, the role of the economy modernization process is considered to be significant for progress and achievements. Thus, establishing an efficient system of socio-economic development of territories, research of the theoretical and methodical foundations of assessing territorial potential are considered to be important issues.

However, with the account of development trend of the regions, it is important to note that there are still some territories where natural demographic, administrative-economic gap is big, as well as the fact that these regions cannot provide themselves with resources, non-compliance of these territories with the market relations in conditions of the economy modernization require research in this field.

Thus, taking into consideration the fact taht modernization is a social and historical process providing the process of transformation of the traditional society into the industrially-developed country, it is urgent to develop theoretical and methodological recommendations aimed at improving efficient managemnet of the territories and methodology of assessing socio-economic potential of the territorial socio-economic development.

Literature review

During the process of the research we have revealed the presence of several methodical developments, in particular, research devoted to the level of the regional stable development and assessment of the socio-economic conditions of the territories. These researches are being implemented by famous economists, scientists, foreign research institutions, international financial-economic organizations and can be illustrated by the table below.

Researches devoted to the methodological assessment of the socio-economic development of territories

Method	System of indicators
Genuine saving ("Genuine saving" determined by the World bank)	GS (Genuine saving) = (GDS-CFC)+EDE-DRNR-DME, where: GDS – gross domestic savings, CFC – reduction of the value of manufacturing assets (due to depreciation), EDE – expenses devoted to education, DRNR – dissolution of natural resources, DME – damages occurred due to worsening of the environment
System of indicators developed by the Commission for stable development of the United Nations Organization (UNO)	Total 60 indicators by 4 spheres social, economic, ecologic, institutional.
Integral indicators demonstrating social and economic stability of the territories proposed by S.A. Zarubin	Indicators grouped by 3 spheres: economic, social, ecological.
Method of assessing socio-economic development of the territories proposed by O.V. Skotarenko	11 indicators: Gross Territorial Product (GTP), volume of investments to the fixed assets per capita, volume of foreign trade per capita, average number of employees engaged in private companies, etc.
Method of assessing socio-economic potential proposed by I.V. Taranenko	5 branches: real sector, investments and foreign economic activity, results of financial activity of the enterprises, social sector, consumption market
Socio-economic potential of territories proposed by A.N. Sirov	Six branches: labour, manufacturing, medical, finance, transport, infrastructure

The following views devoted to the stabilization of the socio-economic development of territories through comparison of their methodical analysis and comprehensive research can be demonstrated.

The first method is based on the single indicator of assessing stability of the territory. "Genuine saving" method can be proposed as an example of this method. Its aim is to take into account net value of assets' change important for the development: manufacturing assets, natural resources, environmental conditions, human resources capital.

Calculation of the final indicator (GS) is implemented in 2 stages: during the first stage the net value of domestic savings are determined (NDS), during the second stage increase of the net domestic savings due to expenses on education, disappearance of natural resources due to worsening of the environment can happen. The advantage of the method is that it enables to calculate both positive and negative results on the same value. Negative results always illustrate unstable development of the territory. However, if we compare "Genuine saving" method with other methods, we can see its several disadvantages. In addition, in terms of the national welfare, this method has some weaknesses in assessing stable development of the territory.

The second method was proposed by the UN Commission for the stable development in 1996 and according to this method all indicators of the stable development are divided into 4 spheres: social, economic, ecological and institutional. In preliminary developments 134 indicators were calculated under these 4 spheres and later the number of these indicators was reduced to 60. Moreover, various definitions have been made by topics and this has enhanced its reliability.

Research methodology

Being efficient, above-mentioned methods which reflect socio-economic development of the territories are considered to be universal in some extent. However, taking into account conditions of the territories of Uzbekistan, variety of their development, it is not proper to apply in any particular case. Therefore it is recommended to adapt this method to the socio-economic development model and implement it with the account of the country's peculiarities.

Nowadays the method of integral indicators used in assessing potential of the territories can be divided into two large groups. Examples of these are the method of average arithmetic and the method of calculating value of indicators through derivative amounts.

For this purpose, it is recommended to use the following multi-stage integral indicators.

First stage – justification of selected indicators.

Second stage – assessing stability of the territory by each indicator (1,2).

$$ki = \frac{xi}{\max(xi)} \text{ – direct indicator,} \quad (1)$$

$$\overline{ki} = \frac{\min(xi)}{xi} \text{ – reverse indicator,} \quad (2)$$

here, xi –i amount of territorial indictors;

max(xi), min(xi) – sample indicator (benchmarking), i.e. indicators reflecting optimal (critic) value of the development of the territory have been selected.

Third stage – calculating economic, social and ecological (*Iecon*., *Isoc.*, *Iecolog.*) stability through versatile comparative analys.

Fourth stage – formulation of integral indicators.

Integral indicator of the stability can be calculated through the following formula:

$$Iуст. = \sqrt[3]{Iэкон.* Iсоц.* Iэкол.} \quad (3)$$

Amount of integral indicators will be from 0 to 1.

Fifth stage – consists of interpretation of the results on the highest (territories provided with financial and intellectual resources: development potential, diversified and possessing the best ecological environment) and the lowest stability.

With the aim of continuing research and having analyzed scientific literary sources, the first group – the group of average arithmetic methods – enables to assess socio-economic potential of territories was reflected in scientific papers of the researches engaged in assessing socio-economic potential of territories. Calculations, proposed by them, can be implemented in three stages (Skotarenko, 2012):

1. Amount of basic indicators of comprehensive assessment of the level of the territorial development. This group of indicators includes 11 indicators: GTP, volume of investments to the fixed assets per capita, volume of foreign trade per capita, average number of employees engaged in private companies, etc. Indicators of developing potential of the social infrastructure branches: consolidated indicator of developing social spheres; extracted minerals per capita; re-production per capita; housing facilities per capita; polluted water flown out per capita.
2. Amount of the complex assessment indicator.

$$БАЛЛ = \sum \frac{БАЛЛр}{n}, \quad (4)$$

where $БАЛЛр$ – assessment value of scores;

n –number of indicators.

Even though there are sufficient indicators for comprehensive assessment of the territories, the fact that some indicators are of a similar nature, reduces reliability of assessing socio-economic potential of the territories.

The method proposed by the researcher I.V. Tarasenko can be referred to the second group (Tarasenko, 2014). In terms of this method the level of the socio-economic potential has been assessed with the account of indicators of 5 branches: real sector, investments and foreign economic activity, results of financial activity of the enterprises, social sector, consumption market.

Mathematical instruments of assessing socio-economic development of territories can be shown through the following comparative indicators (5) and (6):

$$qi = \frac{Pri}{Psti}, \quad (5)$$

$$\overline{qi} = \frac{Psti}{Pri}, \quad (6)$$

Where Pri – *i*-indicator amount (for a territory) of the socio-economic development;

$Psti$ –*i*-indicator (for an average overall country) of the socio-economic development;

Here, if increase of calculated indicators makes a positive impact on the territorial development, otherwise we can obtain formula (6) from formula (5).

The following formula can be used to calculate final rating of the social-economic potential:

$$Rr = \prod_{i=1}^{n} qi\ , \tag{7}$$

where Rr – final mark for the development of the socio-economic potential of the territory (rating mark);

n – comparative amount of the socio-economic indicators.

Prior aspect of the methodological technique is that it enables to determine the share of contribution to the gross national potential of each territory.

It should be noted that there is the third group of researches aimed at assessing of the economic potential of the territories, in particular, scientific papers of A.N. Sirov (Sirov, 2008). These researches focus on the value of resources reflecting current potential of the territories and the degree of their utilization. Assessment indicator can be shown by the integral formula:

$$F\big(\varphi(T)\big)j = \sqrt[m]{\prod_{i=1}^{m} \varphi\ (T)tj}, \tag{8}$$

here, $F\big(\varphi(T)\big)j$ – j function of determining integral value of the potential of the territory;

m – volume of resources illustrating potential of the territories;

$\varphi\ (T)$ – value of t resource potential for j territory.

Separate value of the resource potential of the territory is calculated according to the following methodical formula (9):

$$\varphi\ (T)tj = \frac{1}{a}\sum_{i=1}^{a} Tij, \tag{9}$$

here, a – amount of indicators used in calculating the value of the resource;

Tij – i indicator of the j potential of the territory.

Innovation potential of territories

Nowadays potential of the territories can be assessed by the number of the population, their income, savings and acquired property, as well as their intellectual potential. In particular, labour force is placed and investment programme of the territory is developed with the account of determining high intellectual potential of the population, number of the population, average age and their income as well as available labour force.

In modern conditions of the global competition development, prior directions and measures of the executive authorities must be aimed at innovation development

of the robust and stable economy, encouragement and support of the innovation activities of the scientific potential in all spheres.

Research of the innovation development source is considered to be the complex issue of making analysis and synthesis of the formulated innovation potential of the territory, and this, in turn, illustrates opportunities of this development. Thus, significance of the assessment of the innovation potential is steadily increasing.

One of the most wide-known method if the method "Innovation potential subindex of growth competitive index (GCI)" calculated for reports on global competitiveness of the International economic forum (IEF).

Growth Competitive Index (GCI) reflects current state of the economy development and is designed at determining ability to achieve a stable growth of the national economy in short-term perspective. GCI is based on three categories which can make impact on the economic growth in short-term and long-term prospective: technologies, public institutions and macroeconomic climate.

GCI includes over 90 variables and is based on 9 indices one of which is innovation activity. Growth Competitive Index proceeds from GNP per capita and divides development of all countries into three main and two transitive periods: development stage of relying on resources (GDP per capita < 2000 USD), stage of raising efficiency (GDP per capita - 3000-9000 USD) and stage of innovation development – GDP per capita > 17000 USD доллари (The Global Competitiveness Report 2008–2009).

According to the methodology of the IEF, achieving a stable economic growth in short-term and long-term development is equally connected with 3 variable categories: macroeconomic environment, public institutions and technologies. In long-term perspective it is impossible to reach economic growth without scientific and technical potential. Innovation compound for so-called "Novator" countries (USA, Japan, Korea, Canada and other) amounts to ½, and for other countries this indicator equals to 1/3 (The Global Competitiveness Report 2008–2009).

Assessing innovation potential of the country

Algorithm of assessing innovation potential at the territorial level can be presented in three types of implemented stages. Below we present generalization of views of the economists (Varshavskiy and Makarov, 2004) on normative methods of assessing potential of territories.

According to the opinion of Moskvina (Moskvina, 2015) the algorithm of assessing innovative potential by territories can be implemented in three stages:

1-table

Algorithm of assessing innovation potential of territories

Name of stage	Objectives of stage
1. Illustrating normative model of the innovation potential state through classification of the amount and (or) quality of the potential resource and effectiveness	Determining the list of the indicators applied and their limited classification while assessing innovation potential of territories
2. Assessing tactic (current) state of the innovation potential (on the basis of the developed model)	Analysis of compliance of normative and factual parameters of the potential is determining its pros and cons
3. Classification of available ways to strengthen innovation potential of regions (with the account of results of implemented analysis)	Formulation of peculiarities of innovation potential of territories, its division into zones. Determining the ways to implement innovation changes.

At the same time, implementation of the above-stated algorithm requires solution of some methodological problems. The first problem refers to necessity of selection of the consolidation of indicators of classification of the amount and (or) quality of the potential resource and effectiveness. While making attempts to solve this problem, scientists divided consolidation of indicators into two categories – generalizing and private indicators. The first category is considered to be a basic classificatory and requires determination of the limited state, and the second category performs a supporting function and serves as explanation of existing trends in the innovation development of territories.

Generalizing indicators' option is implemented with the account of the following aspects:

- with the account of the complex classification of the innovation process of the system of indicators, it is necessary to include its main stages: "science-innovation-production and distribution";
- consolidation of indicators should be elastic and reflect all changes occurred in the innovation sphere of any territory (classification of resource and effectiveness added);
- to conduct comparative analysis of the innovation potential by territories, number of indicators must be limited and related to peculiarities and opportunities of territorial statistics. Therefore, all generalizing indicators should be grouped into five blocks illustrating innovation potential of the territory (2-table).

The second problem arises from the necessity to determine limitary state of the selected indicators.

2-table

System of generalizing indicators illustrating innovation potential of the territory (Moskvina, 2015)

Group of indicators	Indicator and its conditional essence	Conditional signs of indicators	Limitary definition of indicators	
			R	Z
By human resources (P)	Share of personnel with higher education in the total number of employees engaged in industrial manufacturing, (conventional unit)	P1	0.25	0.8
	Share of expenditures on professional education in overall expenditures on the labour force, (c.u.)	P2	0.15	0.5
	Number of students getting education in higher educational establishments in relation to every 10 thousand people, man	P3	100	150
Technical and technological component (T)	Depreciation level of basic production assets, in %	T1	60	25
	Updating ratio of basic production assets, in %	T2	4.5	12.0
	Share of equipment with exploitation duration up to 10 years, ш.б.	T3	0.33	0.7
Financial component (F)	Share of expenses on R&D in the Gross Territorial Product (GTP), in %	F1	2.5	5
	Share of expenses on innovation in the overall volume of the manufactured products, in %	F2	2.5	5
	Share of investments directed to industry in the GTP, in %	F3	2.4	11.8
Scientific component (HR)	Number of employees engaged in research in relation to every 10 thousand people, man	HR1	13	40
	Number of candidates of sciences and doctors of sciences in relation to every	HR2	0.4	4.0

	10 thousand people in a territory, man			
	Cost of machinery and equipment in overall volume of fixed assets in "Science and scientific services" sector, in %	HR3	16	35
Effectiveness component (E)	Number of applications submitted to patent agencies for inventions in relation to every 10 thousand people in %	E1	2.5	5
	Innovation activity level of industrial enterprises, in %	E2	40	10
	Share of innovation products in the overall volume of industrial products, in %	E3	8	15

The third problem is connected with formulation of the normative model of innovation activity. Its solution can be demonstrated by the inequality system connecting generalizing indicators with their limitary definitions (3-table).

3-table

Normative model of assessing innovation potential of the territory,
(Koguta, 1995)

Type of inequality	State of innovation potential definition
I < = R	Unsatisfactory condition, requiring sharp re-changes, illustrated as weakness of the innovation potential.
R < I < Z	Crisis condition, requires limited changes to achieve aims by innovation development
I > = Z	Satisfactory condition, complies with innovation aims, requires changes directed to maintaining positive dynamics. Illustrated as strength of the innovation potential.

Here, I – sign of generalizing indicators which determines components of resource and effectiveness of innovation potential; R – limitary sign of generalizing indicators of innovation potential which shows limit of possible minimal crisis level; Z – limitary sign of generalizing indicators of innovation potential which reflects pre-crisis condition through definition of limit showing parameter.

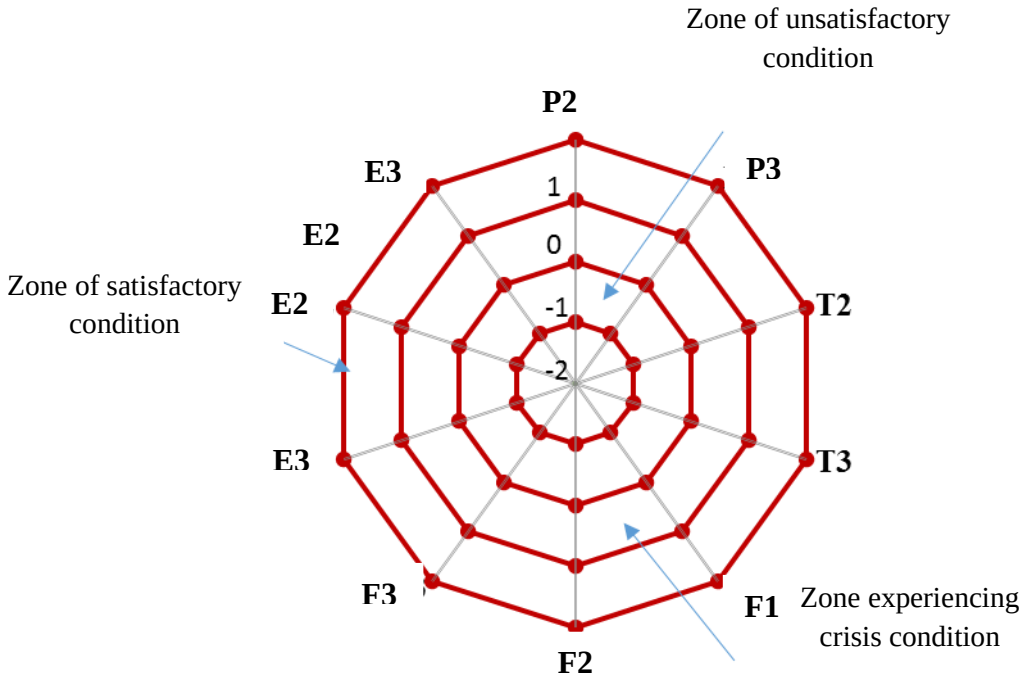
4-table

Essence of generalizing coordinators of innovation potential indicators

Type of inequality	Calculating coordinates of generalizing indicators (i)
For all indicators (only excluding T1 and T3)	
I< = R	i=R/I, here sign "-" is given to coordinate's signs
R < I < Z	i=I/Z – coordinate's signs ranges from 0 to 1
I > = Z	i=Z/I – range of coordinate's signs will always be higher than 1
For T1 and T3indicators*	
I > = R	i= I/R, here sign "-" is given to coordinate's signs
R > I > Z	i=Z/I – coordinate's signs ranges from 0 to 1
I < = Z	i=I/Z – range of coordinate's signs will always be higher than 1

* *"Depreciation level of basic production assets" and "Share of equipment with exploitation duration up to 10 years"*.

The fourth problem is related to analysis of compliance of normative and factual parameters of the potential. It illustrates intercomparison of the results obtained in the process of assessing generalizing indicators of the first-level signs. With this aim it is possible to use the approach which depicts consolidation of coordinates of the single graph and enables to aggregate (generalize, collect) definition of the potential(i). From the methodological point of view this approach can be illustrated in the following way (1-figure):



1-figure. Innovation profile of territories and its division into zones (Moskvina, 2015).

1. Unsatisfactory zone of the innovation condition ($i < 0$).

It reflects negative trends of formulating innovation economy and requires developmnet of the complex of measures aimed at raising the indicators of resource and effectiveness of the innovation potential of territories.

2. Zone of crisis condition ($0 < i < = 1$). Innovation potential of the territorial economy hasn't been sufficiently developed and in order to perfection the situation it is recommended to improve the ways of using resources and activization of final results of innovation activity.

3. Satisfactory zone ($i > 1$). Under this condition, development of innovation processes shift the crisis border and with the aim of maintaining this positive dynamics it is recommended to elaborate relevant measures. The results of division into these zones can serve to determine the ways of implementing innovation changes.

Conclusion

If the "Genuine saving" proposed by the UNO Commission for the stable development for assessing socio-economic developmnet of territories is considered to be efficient as a basis for evaluating impact on the high economic globalization and influence of external threats on the developmnet of the territorial economy, assessment on the basis of integral indicators is efficient inside the country.

With the aim of studying technique of complex assessment of the potential of territories and determining socio-economic potential of territories on the basis of their analysis it is advisable to introduce the system of calculating indicators by the following spheres of the economy:

1. labour (number of population, share of economically active population, number of people with higher education);
2. manufacturing (manufacturing volume, residual value of fixed assets in enterprises);
3. financial (tax, non-tax revenue of the budget, budget expenses, investments into fixed capital);
4. natural (agricultural areas, goods and services produced in rural areas, natural resources);
5. transport (length of automobile roads, length of railways, volume of cargo delivered);
6. inftrastructure (wastewater, capacity of electricity networks, degree of providing housing conditions of the population with natural gas).

Assessment of the economic potential of territories by these indicators can be used by territorial administrative authorities in accepting urgent decisions, elaborating programmes for territorial development as well as providing complex development of the territories.

To achieve this aim, the following problems must be sold:

to consider socio-economic potential and its components as economic category and object for statistic research;

to develop the system of indicators determining territorial potential by characteristics of the volume of available resources, their structure, quality and other parameters;

to elaborate the methodology of assessing various elements of the potential;

to develop the methodology of assessing vanishing (reduction) of the socio-economic potential of the territory;

to work out the methodology reflecting illegal or shadow use of the territorial potential;

to develop the methodology of the efficient use of the socio-economic potential of the territory;

to work out the methodology of determining development of socio-economic potential of territories and assessing the scope of their impact, etc.

Analysis of such indicators as human resources condition, technical and technological developments available in the territory, number of inventions, number of inventions per capita is considered to be crucial for innovation development of the territory and its assessment. Therefore, adapting advanced experience of foreign countries in terms of assessing development level in domestic practice of Uzbekistan and developing practical recommendations are the main objectives of researches in this field.

While assessing socio-economic potential of the territories is necessary to develop various programmes for the territorial development and take into consideration some other factors with the account of economic resources available in the territory, intellectual potential of the territory and degree of utilizing this potential, opportunities to use resource potential in terms of using technical and technological aspects and the scope of available resources.

Thus, studying of widely-recognized developments approved in practice, realizing their essence and concepts provide efficient development of territorial programmes devoted to the comprehensive development of territories.

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