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ASSESSMENT OF THE COMPETITIVE POTENTIAL OF THE REGION THROUGH AN INTEGRATED SYSTEM OF RATING POSITIONING

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Abstract: *The task of developing the strategy of development of the regions is an urgent problem of the economic policy of the Russian Federation. To implement the strategy under development, the priority sectors in the region must be identified, the development of which will be funded through a variety of regional development programs. Choosing the most efficient directions for the development of economic potential requires the development of a methodological approach to the comprehensive assessment of the components of the socio-economic potential of the region. We propose to carry out a comprehensive assessment of the economic potential of the region in order to identify the strengths and weaknesses of its development using an approach based on an integrated system of rating positioning.*

Keywords*: assessment of the regions, economic potential of the regions, integrated system of rating positioning, assessment criteria*

1. INTRODUCTION

A large number of ratings which generally describe a certain area of the study are compiled for the analysis of the competitive positioning of the region (Katkalo, 2008). A more complete understanding of the situation in the region is provided by a comprehensive analysis of ratings compiled by various agencies. (Danko, 2015a). The author's method allows to consider the dynamics of the region's position in relation to other subjects. Baseline ratings of competitive positioning were chosen for analysis (Clark, Osterwalder, Pigneur, 2012): environmental (Greenpatrol), quality of life (RIA Rating), solvency (AK&M), migration gain (the Federal State Statistics

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Service data), debt load (RIA Rating) and innovative activity (NAIITD). The locations corresponding to the individual regions are selected in accordance with rating sheets for each position (Osterwalder, Pigneur, 2010)

2. METHODS

To simplify the study, the scale of relative scores is introduced (Table 1) ranged from 10 to 1, corresponding to the place of the region in ascending order from 1 to 85.

The following formula is used to calculate the relative share of ranking in the overall composition of the sample:

The rating positioning map is built over 2-year period based on the obtained data (Norse, 2012), where X axis represents the relative share of rating, Y axis reflects the value of the indicator itself, the size of the sphere corresponds to the position the subject takes in the all-Russian regional sheet taken conversely for convenience of use: the 85th place of the region is indicated as 0 (Figure 1).

Table 1
Relative scale of scores

Place of the region	*Score (S)*
1-8	10
9-16	9
17-24	8
25-32	7
33-40	6
41-48	5
49-56	4
57-64	3
65-72	2
73-80	1
80-85	0

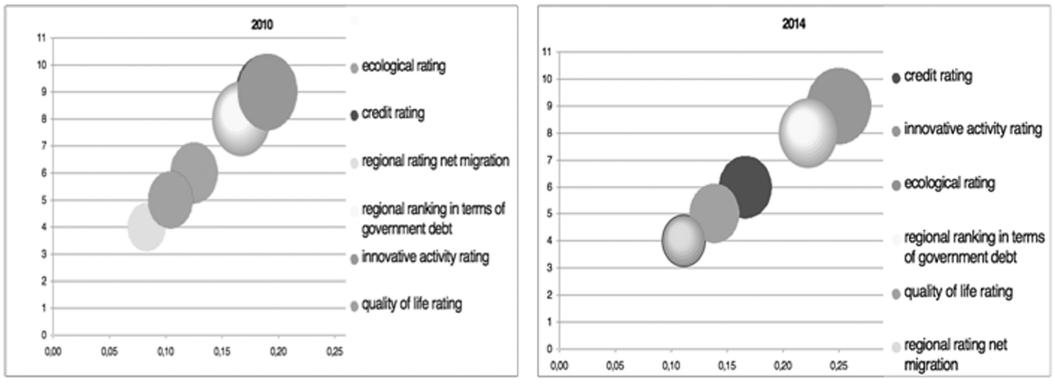

Figure 1: Rating positioning map of Khabarovsk Krai for 2010-2014.

The rating positioning maps for each reporting year and map of the dynamics are built based on the obtained data.

To reflect the research methods, the territory of advanced development was chosen – Khabarovsk Krai. Table 2 summarizes the obtained data on those territorial units.

Multidirectional movement of ratings in space indicates the presence of the set of challenges the management of the region faces (Figure 2) (Rumelt, 2003). The following results were obtained when considering the dynamics map. The general trend is decline in the total score of the region. It manifests itself in a significant reduction in credit solvency, followed by the static position of the debt burden decline in the research base.

Table 2
Positions in Khabarovsk Krai ratings

	quality of life rating	*credit rating*	*regional rating on net migration*	*debt load rating*	*innovative activity rating*	*ecological rating*
position of the region in 2010	42	14	54	14	12	37
position of the region in 2014	41	34	52	23	12	50

	S	*RS*	*S*	*RS*	*S*	*RS*	*S*	*RS*	*S*	*RS*	*S*	*RS*	*Total score*
2010	5	0.12	9	0.214	4	0.1	9	0.21	9	0.2	6	0.14	42
2014	5	0.14	6	0.167	4	0.11	8	0.22	9	0.3	4	0.11	36

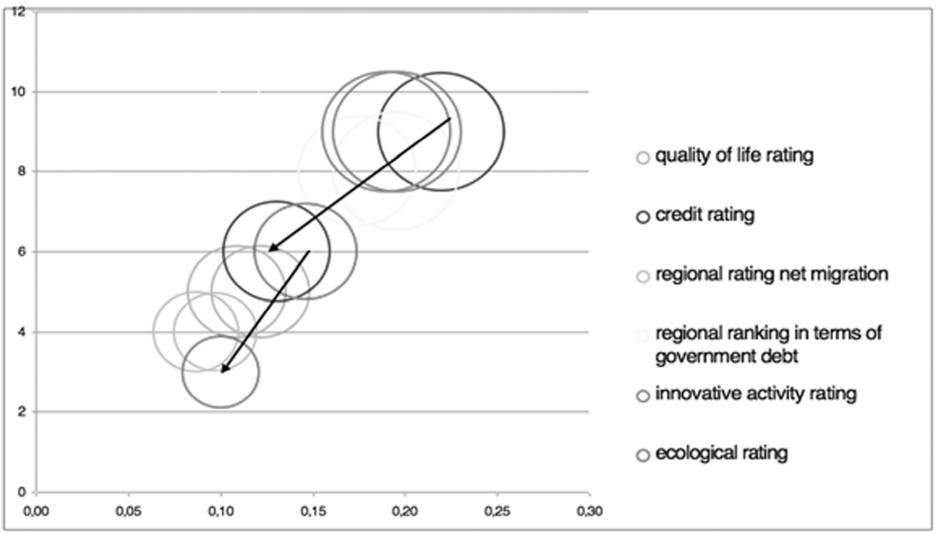

Figure 2: Map of the spatial rating positioning of Khabarovsk Krai 2010-2014

Unlike the integral index of competitiveness of the region, the essence of our proposal is to preserve the dynamics and build a spatial model of ratings positioning in their interaction with each other (Danko, 2015b).

3. RESULTS

The system of methods of assessment of structural shifts MIX- DIF- NS-effects was used to clarify tools (Clark, Osterwalder, Pigneur, 2012) to assess structural shifts in the regional economy. The advantage of the method of structural shifts is the ability to determine the degree of impact on economic growth in a particular territorial entity from the development of the sectoral structure of regional and national economies, as well as the evaluation of the factors of internal effectiveness of a particular industry (Geroski, Gugler, 2004).

Let's perform the necessary calculations using formulas.

The level of impact of the national economy factors is determined using the formula (NS-effect):

$$NS_{ir} = \sum_{i=1}^{n} \frac{E_{ir}^{0}}{E_{r}^{0}} \left(\frac{E_{N}^{1}}{E_{n}^{0}} - 1 \right) * 100\%,$$

Where NS_{ir} is the degree of impact of the national economy factor on regional development of the i sector, expressed as a percentage; E is the share of a particular sector (Er – in GRP, En – in GDP).

Composition effect (**MIX-effect**), the degree of impact of the factor of the regional structure change on the development of a particular sector, expressed as a %.

$$MIX_{ir} = \sum_{i=1}^{n} \frac{E_{ir}^{0}}{E_{r}^{0}} \left(\frac{E_{in}^{1}}{E_{in}^{0}} - \frac{E_{n}^{1}}{E_{n}^{0}} \right) * 100\%,$$

Assessment of *internal factors* reflecting the *efficiency of sectors in the region*. (**DIF-effect**)

$$DIF_{ir} = \sum_{i=1}^{n} \frac{E_{ir}^{0}}{E_{r}^{0}} \left(\frac{E_{ir}^{1}}{E_{ir}^{0}} - \frac{E_{n}^{1}}{E_{in}^{0}} \right) * 100\%.$$

Conducting this research is based on data on the structure of the GRP of Khabarovsk Krai. The results are presented in Table 3.

4. DISCUSSION

The study (Danko, 2015a) shows the equal total impact of national factors on the development of the Russian Federation entities in the amount of 260% from 2005 to 2014, but significant differences are explained by the different share of sectors in the

Table 3
Calculation of the composition effect (MIX-effect) and internal factors of development of the region (DIF-effect) for Khabarovsk Krai for 2005-2014.

	MIX-effect			*DIF-effect*		
	2010 to 2005	*2014 to 2010*	*2014 to 2005*	*2010 to 2005*	*2014 to 2010*	*2014 to 2005*
Agriculture, hunting and forestry	-3.041	1.193	-2.274	-1.150	-3.99	-10.927
Fishing, fish farming	-1.357	0	-2.283	-0.082	0.156	0.205
Mining	-1.888	0.146	-2.913	1.687	-0.880	0.964
Manufacturing	-1.390	-0.248	-3.215	-11.670	0.527	-18.140
Production and distribution of electricity, gas and water	2.053	-1.585	-0.493	-1.570	-0.496	-3.257
Construction	2.662	0.332	4.850	14.527	-15.751	-9.760
Wholesale and retail trade	-3.067	-0.486	-6.019	5.919	0.394	10.615
Hotels and restaurants	0.190	0.135	0.641	-0.150	0.384	0.565
Transport and communications	-0.386	-3.210	-8.443	-3.911	15.044	27.173
Financial activities	-0.292	-0.112	-0.590	0.527	-0.095	0.531
Real estate, renting activities and provision of services	5.429	0.146	9.512	-4.070	-5.458	-18.879
Public administration and defense; social insurance	8.690	2.395	20.185	-1.168	-2.142	-6.976
Education	0.735	0.706	3.090	-1.808	-0.780	-5.057
Healthcare	1.825	1.227	6.139	-1.383	-0.253	-3.257
Provision of other services	-0.229	0.144	0	-0.568	0.012	-0.997
Total	9.9	0.78	18.2	-4.87	-13.3	-37.2

GRP (Sekerin, Avramenko,Veselovsky, Aleksakhina, 2014). However, the shortcoming of the model is the fact that more support is provided to the sectors occupying a larger volume, without taking into account the possibility of subsidizing of small sectors (Danko, Shemetkova, 2015).

The obtained estimates (Danko, Zarova, 2015) of structural changes in the economy of Khabarovsk Krai are the following across the sectors: manufacturing (-18%), construction (-9.7%) and others, which is 53% of the structural formations of the Khabarovsk Krai GRP. This exceeds the critical mass (Osterwalder, Pigneur, 2010) of the recorded negative structural shifts and is an indicator of making managerial decisions on essential restructuring of the development of the region (Dudin, Lyasnikov, Sekerin, Gorohova, 2014). It should also be noted that the integrated map allows to make adjustments to position of the ratings depending on the time of registration. This is most clearly seen in the rating of innovative activity of Khabarovsk Krai, which has not changed quantitatively (12th place in the rating of the Russian Federation) but changed in space, taking a more favorable position relative to other ratings (Figure 2) (Sekerin, Gribov, 2014). Overall, the obtained results give ground to rely on the success of the implementation of the program of the Territory of advancing development despite the considerable difficulties in the structural shifts in the economy of Khabarovsk Krai.

More than 163 billion rubles of investments will be attracted to Khabarovsk Krai within the territories of advancing social and economic development (TOSER) "Khabarovsk" and "Komsomolsk", as well as for implementation of the target for the development of Komsomolsk-on-Amur. The Minister for Development of the Far East, Alexander Galushka, announced that before the end of 2017, two TOSERs must be filled with residents, after which new territories will be created in the region REGNUM. (https://khabkrai.ru/)

5. CONCLUSIONS

The proposed method allows to expand an indicative base of assessment of the regions' competitiveness on the basis of the analysis of the rating positioning map. The method requires testing of its development with the inclusion of the assessment of the component of innovation potential of the region of the vector of intangible assets market opportunities. This study was conducted as part of the situational analysis center of Plekhanov RUE, regional marketing (http://regnum.ru/news/economy/2131497.html).

Depending on the position of the study, various components of economic potential can be used (this study involves those of natural, environmental and employment potentials, as well as taking into account the development of foreign economic relations and fiscal relations in the region, as well as production and resource) (Teece, 2002). In the actual economic situation, the market situation requires clarification of the behavior of various segments of the market, which would respectively require the expansion of not only statistical and analytical base, but also methodological tools. We assume that the chosen limitations of the study are the first step of indicating the competitiveness of the potential of the region through the use of the system of methods to assess the structural shifts MIX- DIF-NS-effects.

The bottleneck of this method is focus on the existing structure of the regional market segments and the resource base of the region. It seems appropriate to further elaborate inter-regional cooperation and vectors of development of innovative sectors of the region. The consideration of a competitive research field by regions would provide an opportunity to clarify the system of priorities relationship and the balance of resources usage through the Spearman rank correlation coefficient, including at the interregional level, in order to achieve the objectives of the development of the regions within the chosen strategy of each individual region.

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