Development of Competitiveness and Competitive Environment in Russian Regions: Management Approach

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Abstract. Purpose: The article applies market relations theory to study the notions of competition, competitive advantage, competitiveness, competitiveness assessment and economic benefit in relation to socio-economic systems of various levels.

Design/methodology/approach: Competitiveness management aspects of economic entities are analyzed basing on the theory of famous researcher and manager Ichak Adizes. According to Adizes' methodology, each economic entity forms its behavior by fulfilling four management roles (P and E (the Producer and the Entrepreneur: short-term and long-term effectiveness), A and I (the Administrator and the Integrator: short-term and long-term efficiency).

Findings: Management of an economic entity is determined by the combination of these management roles demonstrated dynamically. Thus, the authors believe dynamic changes in territorial economic systems that cause balance shifts promote development and competitiveness. Basing on this approach, we have analyzed competitiveness of all Russian regions (83 subjects except the Republic of Crimea and Sevastopol).

Originality/value: In order to assess regional competitiveness, we have established respective indicators and indexes basing on official statistical data. The authors also introduce the notion of socioeconomic system balance indicator. This article provides the competitiveness balance rating of Russian regions. In conclusion, the authors give recommendations to public authorities on improving competitiveness of territorial business systems.

Keywords: Competitiveness · Competitiveness assessment · Management approach · Region · Regional business system · Competitiveness balance · Russia

JEL Code: C10 · P51 · R10

1 Introduction

Competitiveness of socioeconomic system depends on the resources it uses. Resource management and application pattern affect the system efficiency. These resources can be human, natural, informational, technological or organizational (Inshakov 2018),

with each of resources having its own functionality and costs. The competitiveness of an entity is influenced by the way priorities are set and resources are involved in the economic activities. Every resource is unique for the socioeconomic system at the moment it is employed. For example, human resources of a specific organization can be used with different efficiency depending on the personnel management technologies. The same applies for technological resources, such as software and work process automation systems.

Competitive advantages determine the competitiveness of a socioeconomic system (in this case, an economic entity), i.e. its ability of competition or competitive struggle with similar entities (Korobov et al. 2017). It is worth noting that market environment affects this process greatly. Properties of a socioeconomic system can act as competitive advantages depending on external conditions (Drucker and Noel 1986).

If a product made in a certain region is in high demand outside this territory, it helps to import investments in the regional economy due to its competitiveness properties. In this case, the development and self-development of a region will depend on the balance between export of resources required for making this product and import of investments resulting from external sales of said product (Schumpeter 2010).

The notion of competition gets a lot of attention in various spheres of life. It is undoubtedly in great demand. Competition affects almost all aspects, even completely non-related ones, of human activity, if they involve a certain extent of market relations (Anholt 2007; Camagni 2002; Drucker 1987; Porter 1990). Competition brings an element of rivalry into these aspects, thus meeting the market demands both efficiently and effectively.

2   Materials and Method

Achieving high levels of competitiveness of socioeconomic systems depends primarily on efficiency of their assessment methods. The analysis provided in this article is based on works by M. Porter, P. Drucker, I. Adizes, J. Schumpeter and O. Inshakov covering multiple approaches to theoretical defining, providing, assessing and improving competitiveness of economic systems of various scales and levels. Practical aspects of assessing, providing and improving competitiveness of Russian regions are based on the Russian Federal State Statistics Service data.

This article has prioritized functional approach. The study is based on a complex of specific scientific methods: subjective and objective, functional and structural, comparative, factor modeling. This work adopts conclusions and concepts put forth by leading Russian and foreign theorists and practitioners in the sphere of competitiveness provision and assessment as well as management of complex socioeconomic systems.

In order to analyze management aspects that may cause changes in economic entity, we have used Ichak Adizes approach. According to Adizes' methodology, each economic entity forms its behavior by fulfilling four management roles (Adizes 1979; Adizes et al. 2017). The management style demonstrated by an entity at a certain period of time can be determined by the combination of these roles or the dominance of certain role. Successful management of an economic entity that enables its development requires fulfillment of a specific role or a set of roles at each specific stage of entity life cycle.

P and E management roles (the Producer and the Entrepreneur: short-term and long-term effectiveness) are aimed at achieving the results demanded by the market, or as Adizes puts it, doing "the right things". The more demanded a product is and the better it meets customers' needs, the more "right" it is. In its turn, market demand increases competitiveness. Thus, P and E roles (short-term and long-term effectiveness) help an entity to shift from one balance to another, potentially forming its competitiveness. Competitiveness is higher when the system meets a specific demand for a certain product or service.

A and I management roles (the Administrator and the Integrator: short-term and long-term efficiency) are aimed at achieving economic efficiency of a system. As the practice demonstrates, A and I roles regulate external and internal management processes and form various administrative systems. Thus, A and I management roles (short-term and long-term efficiency) help an entity to shift from one balance to another, potentially forming its competitiveness.

3   Results

This work provides a comparative assessment of short-term and long-term regional competitiveness. The Russian Federation consists of 83 regions. The short-term competitiveness index of a region has been estimated as the geometric mean of its functionality and systematicity; the long-term competitiveness index – as the geometric mean of its proactivity and harmony.

For estimating the competitiveness indexes, we have used the official statistical date (Federal State Statistics Service 2018).

As an example, we have analyzed regional business systems of the Russian Federation.

The functionality of regional business system depends on the competitiveness of its products, goods or services provided by small and medium business entities. The better the quality is, the higher is the regional share in the national turnover of businesses and companies.

Systematicity depends on the level of energy-saving technologies used by regional small and medium business entities while producing their products, goods or services. The more cost-saving the production is, the more competitive the business is. In the world of digital economy, efficiency and respectively, competitiveness depend on human resources primary. This is why short-term efficiency of regional system is estimated by the turnover share of Russian companies related to the personnel involved.

Proactivity of a regional business system is characterized by investment and innovation potential of small and medium business entities.

Harmony is estimated by the increase of small and medium business entities during various planning periods.

Table 1 provides the rating of Russian regions basing on their integral and specific competitiveness indexes.

Table 1. Competitiveness rating of Russian regions, 2017

Region	Russian region rating		
	C_{int}	C_{s-t}	C_{l-t}
Moscow	1	1	1
Saint Petersburg	2	2	2
Moscow Oblast	3	3	3
Khanty-Mansiysk Autonomous Okrug – Yugra	4	4	7
Krasnodar Krai	5	7	4
The Republic of Tatarstan	6	6	5
Yamalo-Nenets Autonomous Okrug	7	5	18
Sverdlovsk Oblast	8	8	6
Krasnoyarsk Krai	9	11	8
Samara Oblast	10	17	9
Nizhny Novgorod Oblast	11	9	11
The Republic of Bashkortostan	12	14	12
Chelyabinsk Oblast	13	15	14
Rostov Oblast	14	22	10
Leningrad Oblast	15	12	19
Perm Oblast	16	18	13
Tyumen Oblast	17	16	17
Kemerovo Oblast	18	10	22
Irkutsk Oblast	19	23	15
Novosibirsk Oblast	20	21	16
Sakhalin Oblast	21	13	31
Voronezh Oblast	22	31	20
Vologda Oblast	23	25	27
The Republic of Sakha (Yakutia)	24	32	21
Belgorod Oblast	25	20	33
Volgograd Oblast	26	28	25
Kaliningrad Oblast	27	30	24
Primorsky Krai	28	34	23
The Komi Republic	29	24	40
Kaluga Oblast	30	19	43
Orenburg Oblast	31	35	26
Tula Oblast	32	29	30
Tomsk Oblast	33	26	39
Khabarovsk Oblast	34	33	28
Lipetsk Oblast	35	27	46
Saratov Oblast	36	40	29
Stavropol Oblast	37	38	32
Yaroslavskaya oblast	38	36	36

(*continued*)

Table 1. (*continued*)

Region	Russian region rating		
	C_{int}	C_{s-t}	C_{l-t}
The Udmurt Republic	39	37	42
Omsk Oblast	40	46	34
Altai Oblast	41	44	38
Vladimir Oblast	42	39	48
Kursk Oblast	43	41	47
Arkhangelsk Oblast	44	45	45
Tver Oblast	45	51	37
Ryazan Oblast	46	43	49
Murmansk Oblast	47	48	44
Astrakhan Oblast	48	52	41
Amur Oblast	49	63	35
Ulyanovsk Oblast	50	55	52
Smolensk Oblast	51	50	55
Novgorod Oblast	52	49	56
Tambov Oblast	53	59	53
Penza Oblast	54	58	54
Bryansk Oblast	55	56	58
Kirov Oblast	56	66	50
The Republic of Mordovia	57	57	61
The Republic of Karelia	58	60	59
The Chuvash Republic	59	65	57
Kamchatka Krai	60	54	66
Zabaykalsky Krai	61	71	51
Magadan Oblast	62	47	72
Oryol Oblast	63	61	65
Nenets Autonomous Okrug	64	42	75
The Republic of Buryatia	65	70	62
Pskov Oblast	66	64	67
Ivanovo Oblast	67	72	63
Kurgan Oblast	68	67	69
The Republic of Khakassia	69	62	73
Kostroma Oblast	70	69	68
The Mari El Republic	71	68	71
The Republic of Dagestan	72	78	60
Chukotka Autonomous Okrug	73	53	83
The Karachay-Cherkess Republic	74	73	76
The Kabardino-Balkar Republic	75	77	70
The Republic of Adygea	76	75	77

Table 1. (*continued*)

Region	Russian region rating		
	C_{int}	C_{s-t}	C_{l-t}
The Chechen Republic	77	81	64
The Republic of North Ossetia - Alania	78	80	74
The Altai Republic	79	76	79
The Tyva Republic	80	74	82
Jewish Autonomous Oblast	81	79	80
The Republic of Kalmykia	82	82	81
The Republic of Ingushetia	83	83	78

Source Compiled by authors based on materials (Federal State Statistics Service 2018).

The regions, in which the short-term competitiveness index exceeds the long-term index in more than 1.5 times, are: Nenets Autonomous Okrug (ranked 42nd by C_{s-t}, 75th by C_{l-t}, 64th by C_{int} in total); Chukotka Autonomous Okrug (ranked 53rd by C_{s-t}, 83rd by C_{l-t}, 73rd by C_{int} in total); Magadan Oblast (47th by C_{s-t}, 72nd by C_{l-t}, 62nd by C_{int} in total); Kaluga Oblast (19th by C_{s-t}, 43rd by C_{l-t}, 30th by C_{int} in total); Lipetsk Oblast (27th by C_{s-t}, 46th by C_{l-t}, 35th by C_{int} in total); Sakhalin Oblast (13th by C_{s-t}, 31st by C_{l-t}, 21st by C_{int} in total); the Komi Republic (24th by C_{s-t}, 40th by C_{l-t}, 29th by C_{int} in total); Yamal-Nenets Autonomous Okrug (5th by C_{s-t}, 18th by C_{l-t}, 7th by C_{int} in total); Belgorod Oblast (20th by C_{s-t}, 33rd by C_{l-t}, 25th by C_{int} in total); Tomsk Oblast (26th by C_{s-t}, 39th by C_{l-t}, 33rd by C_{int} in total); Kemerovo Oblast (10th by C_{s-t}, 22nd by C_{l-t}, 18th by C_{int} in total); Kamchatka Krai (54th by C_{s-t}, 66th by C_{l-t}, 60th by C_{int} in total); the Republic of Khakassia (62nd by C_{s-t}, 73rd by C_{l-t}, 69th by C_{int} in total).

On the contrary, the regions, in which the long-term competitiveness index exceeds the short-term index in more than 1.5 times, are: Amur Oblast (63rd by C_{s-t}, 35th by C_{l-t}, 49th by C_{int} in total); Zabaykalsky Krai (71st by C_{s-t}, 51st by C_{l-t}, 61st by C_{int} in total); the Republic of Dagestan (78th by Cs-t, 60th by C_{l-t}, 72nd by C_{int} in total); the Chechen Republic (81st by C_{s-t}, 64th by C_{l-t}, 77th by C_{int} in total); Kirov Oblast (66th by C_{s-t}, 50th by C_{l-t}, finally 56th by C_{int} in total); Tver Oblast (51st by C_{s-t}, 37th by C_{l-t}, 45th by C_{int} in total); Rostov Oblast (22nd by C_{s-t}, 10th by C_{l-t}, 14th by C_{int} in total); Omsk Oblast (46th by C_{s-t}, 34th by C_{l-t}, 40th by C_{int} in total); Voronezh Oblast (31st by C_{s-t}, 20th by C_{l-t}, 22nd by C_{int} in total); the Republic of Sakha (Yakutia) (32nd by C_{s-t}, 21st by C_{l-t}, 24th by C_{int} in total); Primorsky Krai (34th by C_{s-t}, 23rd by C_{l-t}, 28th by C_{int} in total); Saratov Oblast (40th by C_{s-t}, 29th by C_{l-t}, 36th by C_{int} in total); Astrakhan Oblast (52nd by C_{s-t}, 41st by C_{l-t}, 48th by C_{int} in total).

The interdependence of regions in relation to their general and special competitiveness indexes seems important for their socioeconomic analysis. Similar to studying the economic entity activities, we introduce the indicator of the **regional business system competitiveness balance:**

$$\Delta = \frac{C_{l-t} - C_{s-t}}{C_{int}} \times 100\%,$$ where C_{l-t} is the long-term competitiveness index, C_{s-t} is the short-term competitiveness index and C_{int} is the integral competitiveness index.

The value of regional business system competitiveness balance can be interpreted in the following ways:

- if the long-term competitiveness index prevails in the region, it indicates that the local authorities have the potential for developing small and medium businesses. These regions tend to focus on innovational business activities that attract investment capital for their development;
- if the short-term competitiveness index is higher, that means the local authorities focus on supporting local manufacturers and lobbying local entrepreneurs (see Table 2).

Table 2. Competitiveness balance rating of the Russian regions' business systems

Δ	The number of regions with Δ value
Δ > 100%	4
100% > Δ > 50%	9
50% > Δ > 25%	15
25% > Δ > 0%	20
0% > Δ > −25%	18
−25% > Δ > −50%	7
−50% > Δ > −100%	8
Δ < −100%	2

Source Compiled by authors based on materials (Federal State Statistics Service 2018).

Equalization of short-term and long-term competitiveness indexes of business systems (25% > Δ > −25%) in 38 regions demonstrates that almost half of Russian regions have well-balanced policies for small and medium business support and development.

4   Conclusion

Basing on the research results, we can provide recommendations to the public authorities. We consider the following activities necessary for increasing competitiveness of regional business systems:

- improving regional education standards in accordance with changing demands of the population and prospective socioeconomic development objectives;
- maintaining environmental safety, protection and reproduction of hunting resources, increasing efficiency of usage, protection and replanting of forests;
- promoting and developing tourism, increasing public awareness of regional cultural and natural legacy;
- improving and developing the regional road infrastructure;
- supporting sustainable industrialization and innovational development;

– creating favorable conditions for implementing commercial projects that correspond to the priorities of regional industrial and agricultural development.

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