The Analysis of Regional Development on the Basis of Corporate Structures’ Activity


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ABSTRACT

Modern conditions upgrade issues concerning the search of ways to develop and increase activity efficiency of large-scale industrial associations that possess a high concentration of material and scientific resources, and influence significantly both a certain economic sector or region and the country’s development in general. This paper aims to substantiate author’s techniques to define the impact of corporate entities on a regional social-economic sphere. The authors have highlighted main features of Russian corporate entities and possible forms of ownership. Types of regions and their features the consideration of which is necessary to evaluate regional development are presented on the basis of the author’s estimation procedure. The factor analysis made the foundation for a rating assessment of corporate entities impact on the region; it allowed to estimate quantitatively corporations’ activity and the level of regional development at a certain time period. The paper is intended for heads of regions, top-managers, researchers dealing with issues of corporate entities’ and regional economy development.

Keywords: Regional Economy, Corporate Entities, Regional Development, Factor Analysis, Rating Assessment

JEL Classifications: A13, B23, C58, C87

1. INTRODUCTION

1.1. Background

The Russian model of corporation is, obviously, in a developing stage; it is formed on the basis of large Post-Soviet enterprises in potentially favorable economic spheres: Mining, mechanical engineering, oil and chemical industry. As a rule, corporate entities have no legal basis in Russian Federation (RF) practice (associations [unions] are exceptions); it results in creating corporations as joint stock companies (open joint stock companies) and closed joint stock companies; their authorized capital is divided into shares the cost of each is expressed by a security – A share; the responsibility of shareholders is limited to sizes of the capital invested in shares (Lvov, 2001; Mogilev and Samoilov, 2007; Shurkina et al., 2015).

State and municipal unitary enterprises and state budget-supported enterprises are not treated as industrial corporate associations operating in the RF. Each corporation is subject to obligatory state registration in an authorized government body in the order determined by the Federal law “About the state registration of legal entities and individual entrepreneurs.”

Features of Russian corporations are connected with features of economy development. Russian corporate associations are formed on the basis of:

- Regional divisions of world corporations, etc. These structures are managed on the basis of world tendencies;
- Large-scale privatized enterprises and horizontal integration of large branch associations;
- Latest technologies (mobile operators, software developers);
• Specific relations with the state in a financial sphere (banks), spheres of mining activity, etc.

### 1.2. Status of a Problem

Spontaneous development of economic relations and insufficiently developed legal base adversely resulted in a capital structure; a number of national economy development directions were lost. Some organizations were bereft of legal and economic independence; others, on the contrary, were divided into many subsidiaries.

Insufficiently developed stock markets, general crisis state of national economy, management problems, specific conditions of corporations' formation lead to essential shortcomings, and, therefore, to poor efficiency of Russian corporate sector (Golikova, 2010; Caplin, 2010; Fetisov, 2010). The duality of corporate entities’ status as sets of independent legal entities, on the one hand, and as uniform economic entities, on the other hand, makes the problem for the development of corporate relations, ways of corporations' creation and effective management conditions which are still poorly studied in scientific practice.

However, the experience of foreign economy, current trends of globalization, internationalization, the growth of quantity and volumes of merges and absorptions, the change of a role that financial structures play in the creation of corporations and methods of their effective development finally promoting gross domestic product growth and economic stabilization enables to study the ways to create models of corporate entities activity and management.

### 1.3. The Research Hypothesis

The capacity of each region is defined by social-economic and institutional factors, abilities for modernization and innovative development providing “growth points.” From the point of view of regional economic policy, the main objective is a sustainable regional growth which can be reached when there is a balance between regions’ and corporations’ interests in significant economic and social directions (Krugman, 1991; Yalovaya, 2009; Kalyuzhnova, 2003; Ilyin, 2010).

In this regard, it is necessary to determine a level of corporate entities’ impact on the region analyzing rating indicators and developing a system of quantity indices that demonstrate the degree of corporations and region’s integration and correlation; that will finally allow to analyze both regional and corporate development to preserve balanced economic development.

### 2. METHODOLOGICAL FRAMEWORK

#### 2.1. Social-Economic Rationale of Corporate Entities’ Activity

In compliance with the Civil Code of the RF (the Civil Code of the RF, item 2, Art. 48; Art. 50), it is possible to classify organizations according to goals of their activity by dividing them into commercial, having revenue targets, (economic associations and societies, production cooperatives, state and municipal unitary enterprises) and noncommercial (public or religious associations, institutions, charity foundations, consumer cooperatives).

The concept of corporation is closely connected with the legal regulation of a legal entity activity (private, public) and the type of corporate relations of corporate association subjects.

The way of property transformation in Russia resulted in the emergence of large economic subjects: Diversified, vertically integrated, horizontally integrated and mixed business entities which significantly influence the economic development of a region. We consider joint stock companies and large companies that are few in number in total of enterprises but determine the level of economic development as corporate entities (due to the lack of a legal definition). Instability of corporate entities development sharply decreases their appeal for investors, and reduces possibilities for economic growth in a region minimizing the accounting of regional interests.

Forms of ownership of Russian corporate associations have various options: State capital (state corporations); private foreign and Russian capital (transnational corporations); foreign capital (Russian divisions of foreign corporations); private Russian capital. It is obvious that at the meso level corporate associations completely implement the whole life cycle of production or services development, and determine the development of market segments from economic and social point of view.

#### 2.2. Types of the Region and Corporate Entities Mutual Interference

At present, structural changes of Russian economy determined by opportunities of regions as most important components of economic growth and objects of state regulation are taking place. It is obvious that competitive advantages allowing to reduce business costs provide the process of economic activity concentration in certain regions. The following is referred to such advantages: (1) Factors of “the first nature,” i.e., availability of natural resources in the region and geographical factors providing objective opportunities for economic branches development and decrease in logistic expenses; (2) factors of “the second nature” - development of agglomerations providing dynamic concentration of links and development of institutional environment.

Russian economy built on factors of “the first nature,” the stock of which is gradually becoming exhausted, is nowadays passing the period of perspective formation and development of industrial and human capital. A regional system is, to a certain extent, a quasi-corporate entity that is localized territorially, and determines the development of economic-social spheres (production and social infrastructure, spheres of natural and social resources, markets of real and financial sectors) (Mortova, 2011; Tyutyk, 2008; Mirolyubova, 2008). The formation of corporate entities in regions as territorial subjects of the RF provides the profitability of a region and regional growth; the existing regional policy defines its activity.

The classification according to the region budgetary dependence on corporations’ activity on the basis of allocated revenue share contributed by corporate entities to the budget was applied to evaluate the structure of RF regions budget:

- 1 Group: Independent and weakly-dependent (up to 20% - the Republic of Adygea, the Republic of Dagestan, Stavropol
Territory, Altai Territory, Regions of Astrakhan and Pskov, etc.;

- 2 Group: Medium-dependent (up to 35% - Regions of Tver and Kaluga, the Republic of Komi, St. Petersburg, the Republic of Chuvash, etc.);
- 3 Group: Dependent (up to 50% - Regions of Bryansk, Leningrad and Vologda, Krasnodar territory, the Republic of Sakha, etc.);
- 4 Group: Totally dependent (from 51% - Moscow, Regions of Ivanovo, Murmansk, Volograd and Chelyabinsk, the Republic of Tatarstan, the Republic of Bashkortostan, etc.).

2.3. Positive and Negative Impact of Corporations on Regional Development

The availability of corporations in the region is determined by both positive and negative factors.

On the one hand, corporations impact industrial structures regulating price policy, providing mobility of population savings in the region, causing own investments and forming local financial markets; besides they concentrate the inflow of labor forces and project changes in the educational sphere. On the other hand, considering the situation with modern Russian corporations, the following problem aspects of region’s direct dependence on corporations’ activity can be found out:  
- Direct influence of economic instability in the form of possible capital outflow;
- Probable imbalance of economic entities interests at a regional level;
- Disruption of industrial-ecological equilibrium;
- Close interrelation with social problems: Employment, living standards, etc.;
- Necessity to coordinate corporate and regional interests in the economic system of a region.

There are some negative features of resource-orientated (fuel, energy and mining) corporate entities – their total impact on the region resulted in appropriation of some part on the regional market; that reduced possible profitability and economic rent, and interfered, thereby, with the development of regions in a pursuit of momentary personal profits.

Thus, corporate entities significantly change the internal environment of a social-economic regional system. Therefore, modification of corporate entities can also be an essential factor of regional growth. A corporate entity tends to control regional activity in two directions – resources provision and markets.

3. RESULTS

3.1. Estimation Procedure of a Region Type

To ensure the balance in the assessment of corporation’s impact on regional development, it is necessary to define a type of a region; this will allow to consider its criteria weight. We have supplemented the research of Burylova and Tyutyk (2009), and the following types of regions are proposed (Figure 1).

Let us specify the following types of regions:
- An intra - Absorbing type; integration processes are actively carried out on its territory, (RF territorial subject having an advantageous geostrategic position, raw material base and industrial complexes). Intra-absorbing regions can also have internal gradation – regions with export-oriented structure, a high share of resource mining, and developed industry. For example, Tyumen region, Tatarstan and Bashkortostan, Krasnoyarsk and Perm regions, Samara region and regions of new projects implementation (Sakhalin region, Nenets Autonomous Area, Krasnodar territory).
- An extra - Absorbing type; a concentration of capitals and control over intra-absorbing regions (centers of administrative authority with the initial capital) take place on their territories. Agglomerations of such cities as Moscow and St. Petersburg having specific institutional advantages (high tax income, a significant amount of highly paid workplaces, etc.) should be referred to extra-absorbing regions.
- Acceptor regions; there are no practically raw material and industrial resources on their territories (regions-consumers that have a low economic sovereignty and are subsidized). Peripheral territories of non-black soil region, Republics of the North Caucasus, etc. can be referred to them.

The proposed gradation will define a regional coefficient of corporate entities activity evaluation.

3.2. Factor Analysis of a Corporate Entity’s rating in the Region

The impact of integration processes of large economic organizations on the region is estimated through the system of activity indicators of corporations and macroeconomic parameters of the region development, its investment appeal and innovative activity. The starting rating of the region development determined by the Russian Federal State Statistics Service data includes the following indicators: Indicators of the social sphere; indicators of economy development; indicators of a social and economic infrastructure. Let us analyze the degree of corporate entities impact on indicators of regional growth (Table 1).
Table 1: The analysis of corporate entities influence on the regional growth

<table>
<thead>
<tr>
<th>A group of indicators</th>
<th>Description of a regional growth indicator</th>
<th>Possibility of industrial corporation impact</th>
<th>Degree of corporation impact on the indicator value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators of the social sphere</td>
<td>Life expectancy at birth</td>
<td>Impact on the ecological situation in the region</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Coefficient of infantile mortality</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Incidence of population:</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Crime rate</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Migratory balance</td>
<td>Implementation of projects:</td>
<td>2</td>
</tr>
<tr>
<td>Development of economy</td>
<td>GRP per capita:</td>
<td>Availability of workplaces</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investment volume in fixed capital per capita</td>
<td>Output of goods and services</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Growth of energy consumption in the region</td>
<td>Implementation of potentially effective investment projects</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Nominal monetary income per capita</td>
<td>Development of power-intensive industries</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Retail turnover and total volume of rendered paid services per capita</td>
<td>Payment of corporate employees</td>
<td>1</td>
</tr>
<tr>
<td>Social and economic infrastructure</td>
<td>The average growth rate of construction in the region</td>
<td>Construction of new industrial facilities</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Income from rendering of communication services</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>The length of highways per 1000 sq.km of the region territory</td>
<td>The degree of the region territory development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Provision of population with social infrastructure facilities</td>
<td>Social responsibility of corporate entities (the number of sports grounds, nursery schools and secondary schools, number of budgetary students)</td>
<td>2</td>
</tr>
</tbody>
</table>

GRP: Gross regional product

3.3. Rating Assessment of Corporate Entities’ Impact on the Region

To obtain a rating assessment for each region the sum of places on all three groups of indicators is calculated. To assess the extent to which a separate corporation influences regional economy and to take into account established links of indicators (Table 1), the authors propose the following complex of indicators (to compare corporations of various regions it is necessary to consider a region type - extra-absorbing, intra-absorbing or acceptor):

1. Participation in the formation of a gross regional product - the relation of a gross regional product to gross profit of a corporate entity, %:
   \[ Yk = \frac{VRP}{Pk} \]  
   Where: \( Yk \) – The extent of corporation participation in the formation of GRP, %; \( VRP \) – Gross regional product; \( Pk \) – Gross profit of a corporation.

2. Providing workplaces of the region – the relation of an average annual number of employees involved in regional economy to an average number of employees of corporate entities, %:
   \[ Sk = \frac{Chr}{Chk} \]  
   Where: \( Sk \) – The extent of participation in providing workplaces of the region; \( Chr \) – Average annual number of those involved in regional economy; \( Chk \) – Average number of employees in corporate entities.

3. The degree of investment – the relation of investments to investments into specific corporate production, %:
   \[ Si = \frac{Ir}{Ik} \]  
   \( Si \) – The degree of investment; \( Ir \) – The volume of regional investments; \( Ik \) – The volume of investment into corporate projects.

4. The level of environmental compatibility – the relation of air emissions produced by a corporate entity to a general value of air pollution in the region, %:
   \[ Ek = \frac{Ak}{Ar} \]  
   \( Ek \) – The level of environmental compatibility of a corporation; \( Ak \) – The volume of harmful substances emitted into the atmosphere by a corporate association; \( Ar \) – The total amount of harmful emissions in the region.

5. Innovativeness (the level of innovations, patents and inventions introduction) of corporations – a share of innovations introduced by a corporation in the total amount of regional innovations, %:
   \[ In = \frac{Inr}{In} \]  
   \( In \) – Innovativeness of a corporation; \( Inr \) – The total amount of innovative activity in the region; \( Ink \) – The volume of innovative activity of a corporation.

6. Social activity - The relation of the total number of realized social projects in the region to a number of social programs and projects of a corporation, %:
   \[ Coa = \frac{Prr}{Prk} \]  
   \( Coa \) – Social activity; \( Prr \) – The number of realized social projects in the region; \( Prk \) – The number of social programs and projects of a corporation.

7. The level of vocationally focused education – The number of trainees in vocational education institutions according to the order of a corporation to the total number of trainees in the region, %:
4. DISCUSSIONS

The determination of corporate business place in each region defines potential opportunities, limitations and expectations from corporate property in the development of an economic system in the region, compliance to priorities of social and economic development of the country in general that makes the initial point of strategic planning in an industrial corporation (Verhoglazenko, 2006; Knysh et al., 2002; Chub, 2010). A corporate entity tends to control regional activity in two directions – resource provision and markets. Therefore, the following factors have a specific importance for the development of a corporation in coordination with regional growth: Availability of raw material resources and/or potential of innovative development – investment appeal, innovative activity, availability of highly qualified personnel and scientific base. From the point of view of region policy the main target is sustainable regional growth which can be achieved on the basis of the region and corporations balance of interests in significant economic and social directions. The researches of regional corporate entities conducted at present will provide transparency of their activity along with obtaining standard financial annual statements.

5. CONCLUSION

It has been established that in modern conditions a corporation, having a small specific weight in the total of enterprises, determines the level of economic development in the region. The formation of corporate entities in regions-subjects of the RF provides the profitability of the region and regional growth; the existing regional policy defines the activity. These provisions are supported by the author’s research of a rating assessment of integration processes impact created by large economic organizations on such positions as “social and economic infrastructure,” “development of economy,” “indicators of the social sphere” through the system of activity indicators of corporations and macroeconomic parameters of the region development. The determination of corporate business place in each region defines potential opportunities, limitations and expectations from corporate property in the development of an economic system in the region, compliance to priorities of social and economic development of the country in general that makes the initial point of strategic planning in an industrial corporation.