



System of factors influencing the formation of a business model

Sistema de factores que influyen en la formación de un modelo de negocio

Olga Vladimirovna Berezhnaya*, Olga Alexandrovna Boris, Elena Viktorovna Berezhnaya,
Rustam Merzeferovich Ustaev, Malvina Nerezhullakhovna Ustaeva

North Caucasus Federal University. Stavropol, Russia.

*Corresponding author E-mail: olga.berezhnaia@gmail.com

(recibido/received: 28-diciembre-2021; aceptado/accepted: 26-febrero-2022)

ABSTRACT

The choice of the government and business interaction (GBI) model is often a question more political than social, or economic. However, the formation and change of the GBI model are determined by economic and social factors that have historically developed in the study area. The trends of recent years have supplemented the factor system of the GBI with two integral components: a crisis of non-economic nature (pandemic) and digitalization of all scopes of activity. The government and business interaction models are significantly differentiated in the context of different states, and Russia, due to the scale of its economy – in the context of regions. The article presents original developments of a structural and logical scheme that can be used to determine the system of factors for choosing the model of interaction between regional governments and business structures to identify the current model and the possibilities of its transformation to optimize the interaction of power structures and companies in the region in a context of crisis or transition period. The model was tested using the materials of Russian regions.

Keywords: coherence of economic policy, government and business interaction, integration of regions, regional economy, Russian economic policy.

RESUMEN

La elección del modelo de interacción entre el gobierno y las empresas (GBI) es a menudo una cuestión más política que social o económica. Sin embargo, la formación y el cambio del modelo GBI están determinados por factores económicos y sociales que históricamente se han desarrollado en el área de estudio. Las tendencias de los últimos años han complementado el sistema factorial del GBI con dos componentes integrales: una crisis de carácter no económico (pandemia) y la digitalización de todos los ámbitos de actividad. Los modelos de interacción del gobierno y las empresas se diferencian significativamente en el contexto de los diferentes estados, y Rusia, debido a la escala de su economía, en el contexto de las regiones. El artículo presenta desarrollos originales de un esquema estructural y lógico que puede ser utilizado para determinar el sistema de factores para elegir el modelo de interacción entre los gobiernos regionales y las estructuras empresariales para identificar el modelo actual y las posibilidades de su transformación para optimizar la interacción de poder, estructuras y empresas de la región en un contexto de crisis o período de transición. El modelo se probó utilizando los materiales de las regiones rusas.

Palabras claves: coherencia de la política económica, interacción entre gobierno y empresas, integración de regiones, economía regional, política económica rusa.

1. INTRODUCTION

Currently, there are many approaches to classifying GBI models (Shokhin, Kisel, 2014; Volokhova, 2019; Vorontsova et al., 2020; Bolshakova, 2014; Yatsechko, 2020; Butova et al., 2014; Bychkova, Gelman, 2010; Kiselev, 2013; Kisel, 2013; Turovsky, 2009; Boris et al., 2021; Shulenina, Vayas, 2012), which are differentiated depending on a range of factors. At the same time, for most models, the defining criteria of the interaction model between government and business are political, historical, and economic parameters, such as the position of government and business (strong/weak), the development dynamics of the region's economy over several years, the presence of large business players and their "origin" (regional, federal, or foreign), etc. (Volokhova, 2019; Berezhnoy et al., 2018; 2019; Boons et al., 2013; Gudelis, Guogis, 2011; Levänen, Lyytinen, Gatica, 2018).

The presence of certain qualitative factors of the functioning of the region makes it possible to attribute its GBI model to a certain type, but this does not mean that the existing model is optimal for the current situation. Effective interaction between the government and business structures implies forming an internal security system that is flexible and adaptive enough to be implemented in an unstable environment. The model of interaction between government and business in the regions should be built in such a way that at the stage of transition between the pre-crisis, crisis, and post-crisis state of the environment, it could be transformed according to the need due to the influence of many local factors.

In connection with the above, the purpose of the present research is to form a system of formalized socio-economic factors and criteria for their assessment to identify the existing model of the GBI in the region and its transformation vector.

The choice or modification of the existing GBI model is dictated by the current state of the very GBI and the influence of a system of macro- and microenvironment factors. The interaction model can be defined, among other things, for a specific sphere of the economic and social life of the region, in particular, international interaction. The current trends of active digitalization of society and the economy impose another significant impact on the GBI models.

2. METHODS

Analysis of contemporary GBI models in the regions has allowed forming a structural-logical scheme of the choice of a particular interaction model between government and business structures at the regional level in the framework of the international digital integration based on the system of factors of an optimal GBI model (Fig. 1).

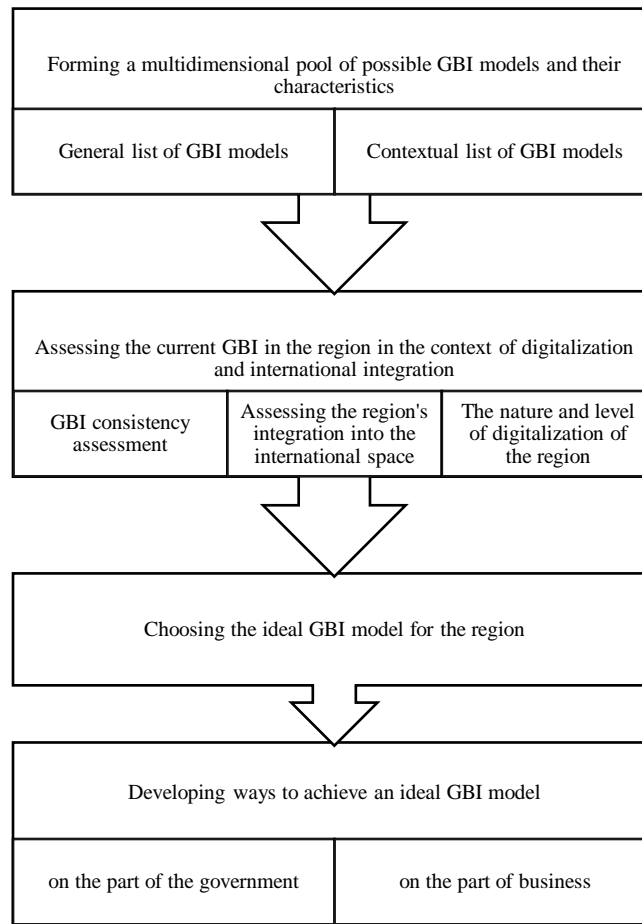


Figure 1. Structural-logical scheme of the choice of a particular model of GBI structures at the regional level in the framework of the international digital integration based on the system of factors of an optimal GBI model

The proposed scheme is implemented in three stages:

Stage I "Forming a multidimensional pool of possible GBI models and their characteristics" includes the construction of a general list of existing GBI models in the regions according to their generally accepted facet classification and further identification of those models that are implemented in the current socio-economic conditions of a given region. To perform the latter action, a set of stop criteria should be formed to reject specific models.

The result of the stage implementation is a set of possible GBI models in the context of the current situation.

Stage II "Assessment of the current GBI in the region in the context of digitalization and international integration" involves an assessment of the current interaction of regional government and business structures. For the study, it seems logical to divide it into several parts:

- the consistency of the GBI, which is determined by the degree of consistency of interests and actions of government and business in the analyzed territory;
- integration of the region into the international space, which is reflected in the participation of the entity in international trade, in the foreign investment volume, the number, and quality of international projects

implemented in the territory. Specifically, it is necessary to assess integration with a specific country; in addition, it is necessary to assess the number and quality of international projects involving government and the business community representatives from both integrating countries;

- the nature and level of digitalization of the region, which is assessed according to formal and informal criteria, quantitative and qualitative indicators of the spread of digital tools among the population and companies.

This stage results in an integrated assessment of the current state of the regional GBI in the context of digitalization and international integration, as well as in a set of key criteria, the main components, reflecting the state of the GBI in the regions.

Stage III "Selection of the ideal GBI model for the region" implies the accounting objective criteria and selecting on this basis the ideal GBI model in a particular region, to which the region can switch currently, or at the time of the crisis/transition to a post-crisis economy.

Thus, the system of factors for choosing a specific model of interaction between government and business structures at the regional level within the framework of international digital integration is in the gap between two GBI models in the region – current and prospective.

3. RESULTS

At the first stage, we will use existing theoretical and applied research to form a multidimensional pool of possible GBI models and their characteristics. Of the many existing approaches, we have selected the following approaches to the classification of GBI models, summarized in Table 1.

Table 1. Multidimensional pool of possible GBI models in the region and their characteristics; compiled by (Bychkova, Gelman, 2010; Kiselev, 2013; Kisel, 2013; Turovsky, 2009)

Author(s)	GBI model	Criteria for attributing regional GBI to a specific model
V.I. Kiselyov	<p>Patronage (government dominates over the economy)</p> <p>Partnership (presence of influential business structures)</p> <p>Privatization of power (business groups monopolize power)</p> <p>Conflict</p> <p>Suppression (resource-deficient regions, dependence on the federal center)</p>	Type of political leadership and features of business organization
K.Yu. Kisel	<p>Partner-based model – partnership with the predominant influence of the state.</p> <p>The coercion model provides for administrative pressure.</p> <p>Government-supervised (symbiotic) model – involves the merger of power and business.</p> <p>Civilized model – certain foreign companies, when entering the Russian market, profess foreign principles of doing business;</p> <p>The system model assumes institutionalized relations.</p> <p>Pocket model – interaction through "pocket" business associations created to protect one company.</p> <p>Dialog model – interaction through forums, seminars, and conferences.</p> <p>The conflict model – interaction with oppositional business structures.</p> <p>Point-to-point model – a specific business association, business structure, or industry lobbies its interests through a specific ministry.</p>	Type of political leadership and features of business organization
R.F. Turovsky	<p>Functional,</p> <p>Partner,</p> <p>The model of state patronage,</p>	Type of political leadership and features of business

	Symbiotic, Conflict	organization
V.Ya. Gelman O.V. Bychkova	The "predator" nation-state, Laissez-faire policy, Mutual hostages, Searching rent, Seizure of the state	The position of government and business (weak/strong)

In addition to the listed models, we will use for our work the classification of T.V. Butova, A.I. Dunaeva, and N.O. Udachin (2014), namely, the models of the ideal GBI, to which the region can switch, and the real institutional existing GBI model.

The second stage of the study involves the most complex and large-scale analytical work, divided into three parts.

The assessment of the consistency of the GBI is the subject of several scientific papers. In 2008, Yu.A. Fridman, G.N. Rechko, Yu.Sh. Blam, and A.G. Pimonov measured the level of consistency of the economic interests of the subjects of the regional industrial policy of the Kemerovo Region based on modeling the dynamics of indicators reflecting the efficiency of the most significant (coal) industry in the region, and indicators characterizing the economy of the region and the standard of living of the population (Friedman et al., 2008). Note that the proposed set of indicators ambiguously characterizes the level of consistency of the GBI and can serve as an assessment of the overall level of development of the regional economy, taking into account its sectoral specialization. Similarly, other quantitative methods for assessing the consistency of the GBI are constructed.

From our viewpoint, an expert assessment, combining qualitative tools (expert opinions, content analysis of analytical and journalistic materials on the state of the economy and government in the region, Internet analysis of interviews of businessmen and politicians of the region, and narrative analysis) and quantitative methods (statistical assessment of quantitative parameters of the regional economy and social sphere in the context of the GBI) is the optimal approach to assessing the consistency of the regional GBI.

Let us consider and assess the GBI in the Stavropol Territory of the Russian Federation, which is an agro-industrial region (hereinafter is calculated based on materials (Berezhnoy et al., 2019)).

First of all, the sectoral structure of the subject's economy is of interest. The main indicator is the gross regional product, whose structure indicates specially the share of public administration and social security. While the average share of this sphere in the Russian Federation is 5-6% (6.14% in 2016, and 5.60% in 2019), in the North Caucasus Federal District (NCFD) amounts to 10-11% (11.14% in 2016, and 10.98% in 2019), in the Stavropol Territory – 9.5% (9.68% in 2016 and 9.61% in 2019). This is one of the highest indicators in the country, which a priori indicates the high role of the government in the entity.

In terms of the consistency of the GBI, it seems appropriate to assess the sectoral alignment of interests and results of business and government. In the Stavropol Territory, the most significant results, calculated by the proportion in terms of GRP and revenue of organizations, belong to agriculture, manufacturing (chemical and food industries), and wholesale trade (calculated by the author based on (Organizations, 2021)). A significant part of the agricultural enterprises of the Stavropol Territory, including the leaders of the regional industry, belongs to Moscow companies. The concentration of agricultural production, calculated based on data on type-related production (Organizations, 2021), is uneven, however, for the most significant types does not exceed 30% for ten enterprises. In the chemical industry, the concentration of nitrogen fertilizers production (Nevinomyssky Nitrogen JSC in the Stavropol Territory is the largest town-forming enterprise) exceeds 90% for 10 enterprises. Similar figures apply for the type of economic

activity; for plastics production (Stavrolen LLC) – more than 55%, by type of activity for the same sector – more than 80%. The food industry, on the contrary, is characterized by low production concentration (no more than 35% for 50 enterprises).

On the part of the government, the tourism industry and agriculture are the priority areas for the region's economic development (The strategy of socio-economic development..., 2020). Thus, 3.5% of the regional budget expenditures (out of 14.6%, allocated for the national economy) were allocated in 2020 for the development of the latter. At the same time, the tourism industry and the activities of sanatorium-resort organizations in the region during the pandemic remain unprofitable, and therefore, unattractive for business (Organizations, 2021). The high potential, shown by sanatoriums in 2019 (return on assets in the Stavropol Territory amounted to 14.81%) and the crisis, caused by covid deprived the industry of attractiveness in terms of investments.

The leading manufacturing industries (food and chemical industries) practically do not receive support from the regional budget, however, the industrial clusters of the region regularly win grants and subsidies from the Ministry of Industry and Trade of the Russian Federation (Successful regional practices cluster development..., 2019; Stavropol clusters presented three projects..., 2018; Entrepreneurship Support Fund in the Stavropol Territory, 2021).

Thus, the consistency of GBI within the framework of the sectoral economic policy of the Stavropol Territory can be attributed to the following GBI models: non-interference policy model, pocket model, and point-to-point model. It is obvious that business, whose parent companies are concentrated in Moscow and abroad, is not interested in active political participation in the life of the region, while government entities do not have a significant influence on the leading economic entities. Common interests are limited to short-term plans and projects in the region.

The second side of the relationship between government and business in the context of the present study is the level of integration of the region into the international space.

The participation of foreign capital in the development of the regional economy is insignificant. Thus, in 2019, the number of direct investments received as a percentage of GRP was less than 1%, compared to 12.6% in the whole country. As of April 1, 2021, the Stavropol Territory hosted more than 80% of foreign direct investment in the NCFD, most of which is equity participation (as already mentioned above – many large companies in the region are subsidiaries of foreign companies). The Netherlands is the main market player (which owns several agricultural companies and invested more than 55% of all direct investments in the regional economy), followed by Cyprus, Azerbaijan, and Germany. The listed countries also provide several investment projects in the region.

The cost of import transactions of the Stavropol Territory amounts on average to 11% of all imports of the NCFD, while export – 83% (calculated by Organizations (2021)). A positive balance of foreign trade prevails in the region. The main export items are chemical goods and the food industry.

Despite the leading position of the region in the foreign trade turnover of the NCFD, the region loses in terms of foreign economic activity to entities closer in terms of development, such as the neighboring Krasnodar Territory, and the Rostov Region. Involvement in international economic processes is observed only in certain industries and organizations, being the largest market players.

At the same time, there is an Export Support Center in the region (Entrepreneurship Support Fund in the Stavropol Territory, 2021), whose activities are aimed at supporting exporting companies. Some successful cases indicate attempts by the government to work out patronage and partnership models in the field of international business.

The issue of the level of digitalization penetration into the regional economy is the research subject of both the official Rosstat and individual scientists. According to the annual research of Rosstat and National Research University - Higher School of Economics, the digitalization index of the Stavropol Territory is 30 units (out of 35 possible). The region is significantly ahead of neighboring republics and the Southern Federal District. This level has been achieved due to the widespread penetration of digital technologies into the activities of legal entities: more than 89% (86% on average in the country) of organizations use broadband Internet, more than 28% (on average for the country) – cloud services, more than 13% – enterprise resource planning systems, 12.2% (against 11.3%) –electronic sales, etc. According to Digital Russia Index (2018), the Stavropol Territory holds the middle-ranking of most of the digital ratings. It is important to emphasize that more than 70% of the population of the region receives public services in electronic form, which correlates with the national level of distribution of digital public services.

Thus, in the context of a digital breakthrough, the interaction of government and business in the Stavropol Territory can be characterized within the framework of a partner model similar to the development of this sphere in the whole country. All market players, all participants in economic and social processes are interested in active digitalization in the context of a pandemic, which leads to harmonious and intense development.

The conducted research shows that within the framework of the identified areas – the coherence of the GBI, digitalization of the region, and involvement in international processes –can be described most fully as one of the variants of the partner model with elements of non-interference policy model, pocket model, and point-to-point model. Moreover, in some cases (the structure of the share capital of large companies, the support of exporters by the Ministry of Industry and Trade), there is a significant influence of the federal power. In the context of a pandemic, from our viewpoint, a patronage and coercion model with an increased role of the government in the economic development of the region require further development. However, the specifics of the economic structure of the Stavropol Territory are such that intervention is necessary at the level of the federal government, rather than at the regional government level. In the post-covid economy, the government will have the opportunity to review and optimize the sectoral structure of the region, focus on regional market players to develop and encourage local capital.

4. DISCUSSION

The proposed approach to identifying the factors of choosing the GBI model in the region is certainly the subject of scientific discussion.

First of all, it is necessary to form not only a list of GBI models but also scales to assess the degree of implementation of a particular GBI model in the region. This entails the idea of creating a two- or three-dimensional space, whose axes correspond to two or three opposite characteristics of the GBI models. The region's position in the specified space will be determined based on empirical data on the historically established GBI of a particular territory and quantitative indicators. Besides, assessments should combine quantitative and qualitative analysis tools (in particular, expert assessments).

Assessment of the current GBI in the region in the context of digitalization and international integration is a stage corresponding to the current goals of contemporary research. This is reflected in a set of assessment criteria, which include the consistency of the GBI, the integration of the region into the international space, as well as the nature, and level of digitalization of the region. However, if the interaction of government and business needs to be analyzed in the context of industrial development, social policy, crisis management, etc., then this set of criteria can be transformed to meet this need.

Finally, the content of the third stage is subject to the greatest adaptation associated with the development of ways to achieve an ideal GBI model that depends on the choice of the ideal model, the current state of the region's economy, and the relationship between government and business.

Thus, while preserving the basic principles of the developed structural and logical scheme for choosing a specific GBI model at the regional level, we can adapt internal changes in its content for the study. The result will always be an assessment of the current GBI and the possibilities of its transformation towards achieving the ideal model.

5. CONCLUSION

The conducted research allowed forming a structural and logical scheme for choosing a specific GBI model at the regional level within the framework of international digital integration based on the system of factors of the optimal GBI model. Its step-by-step adjusting was carried out using the materials of the Russian region and demonstrated the need for a comprehensive interpretation of the GBI model in the region for its sufficient characteristics. The analyzed region demonstrated a significant dependence of business on corporate structures of federal significance and the desire of the government for a partner model. This suggests the need to develop a patronage model with the active involvement of the federal government.

ACKNOWLEDGMENTS

Published with the support of RFBR grant 20-510-00025 Bel_a "Developing the concept of formation of effective models of interaction between government and business structures at the regional level within the framework of digital integration of the Republic of Belarus and the Russian Federation".

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