



Management Model of Administrating Territories with Special Entrepreneurial Treatment

Gulia F. Galiullina*, Rasulya R. Aetdinova, Liya R. Sharipova

Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia

Received: 05/08/2019

Accepted: 20/11/2019

Published: 20/12/2019

Abstract

The article proposes a model for managing territories with a special regime of doing business (25 special economic zones, 3 free economic zones, 166 industrial parks, 73 science cities, 25 innovation-territorial clusters, 199 technology parks, 21 Far Eastern territories of priority development, 89 territories of advanced social and economic development in single-industry towns, etc.). Experiments on their creation in the modern history of the country have been implemented since the 90s of the 20th century. Modern strategic management, ignoring large-scale unforeseen events ("black swans"), puts a priority on the analysis of the causes and consequences of the most frequently occurring events and their consideration in predicting the future. But it is precisely the factors of uncertainty and chaos that change reality, translate development into a new trend. These factors and mechanisms of self-organization of economic development take into account the institutional-synergetic approach, which emphasizes phase and structural transformations in the system and creates the conditions for the manifestation of various types of synergy in phase and structural dynamics. A feature of managing special territories based on an institutional-synergetic approach is the constant monitoring of the situation using two feedback channels. Building a positive feedback system is aimed at tracking the system-forming transformations of the external and internal environment of the control object, and based on this, plan and implement proactive management decisions. In a constantly changing external environment, periodically (usually for a short time after the transition to a new development trend), it is important to stabilize the system in order to maintain new trends at a given stage of transformation. This function is performed by the negative feedback channel. The management model of territories with a special business regime with positive and feedback channels is focused on the implementation of proactive management.

Keywords: Saprobity, Gene *18S rRNA*, Next-generation sequencing, Freshwater lake, Ecology

1 Introduction

Currently, there is a tendency for the actual development of the territories to be inconsistent with the adopted programs in the medium and long term. Due to the gap in the evolutionary changes in territorial development and managerial influences, strategic goals remain unattainable, and the corresponding programs lose relevance. The weakness of the classical strategic programming approaches limits their practical application. In our research opinion, the reason for the current situation lies in the fact that with such approaches, territorial development is developed without taking into account the system-forming factors that are caused by non-linearity, development disequilibrium.

Synergetics is engaged in the study of developing systems in a constantly changing external environment. In our research opinion, it is the institutional-synergetic

approach that can serve as the basis for the formation of theoretical and methodological aspects of the development of a territory management system with a special regime for doing business (hereinafter referred to as a special territory).

The results of the development of special territories fully show the backwardness of strategic planning based on classical approaches.

The first attempts to create territories with a special business regime in modern Russia were made in the early 90s of the last centuries. In 1990-1992, in order to attract foreign investment and technology, the promotion of Russian goods for export, 11 free economic zones were created (hereinafter - the FEZ). The creation of pilot territories with a special management regime was controversial: on the one hand, negative experience was gained in creating free economic zones in large territories (Yantar free economic zone in the Kaliningrad region, Nakhodka free economic zone in the Primorsky Territory and others), and on the other hand, in 1996, 18 FEZ were organized in the country. Currently, the country has three free economic zones - in Magadan, Kaliningrad, since 2014 in the territories of the Republic of Crimea and the city of

Corresponding author: Gulia F. Galiullina, Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia. E-mail: gulia-fag@yandex.ru. Tel.: 89600856199.

federal significance Sevastopol. Since that period, the state began to develop a new type of territory with a special type of entrepreneurial activity - special economic zones. Ten years of experience in their existence have shown that they have not become an effective tool to support the national economy. The process of their creation was characterized by formalism, irresponsibility and impunity, lack of executive discipline and demand for decisions made and their consequences. The real economic effect of special economic zones has not been achieved. (1)

In general, as of mid-2019, there are 14 types of special territories in the country, including more than 600 management objects, the effectiveness of many of which is being questioned by the scientific and business community. (2)

2 Methods

The fundamental principle of the institutional-synergetic approach to management is that it breaks through randomness for which suitable conditions have been consciously or unconsciously created (relevant institutions and institutional relations). This requires a special state of an open nonlinear system - a state of instability, chaos. This state is characterized by the sensitivity of the system to small fluctuations (it is amplified through a positive feedback channel). In a state of instability, in fact, something always lies that indicates the relationship of micro- and macroscales. (3)

In the context of chaos, coherent managerial influences, like small disturbances, can radically change the functioning of territories with a special regime of doing business (a macro picture of being), the image of the

desired future territory (a kind of macrostructure).

In a state of instability, chaos, the system itself and the control subsystem must be flexible. A rigid system is a system of artificial decisions and actions when the benefits are small and visible, and the side effects are potentially huge and invisible. (4)

Finding a system in a state of chaos allows you to start the mechanism of self-organizing and sustainable development:

1. To reach the desired development attractor, to form the necessary structure of the system.

An analogue of self-regulating chaos in the system of territories with a special regime of doing business can be a generalized market for goods and services, the main of which in the modern world are scientific, technical ideas.

2. To establish the general rate of development of the process at the micro level in a complex structure.

3. Transfer various modes of system development from one relatively stable structure to another, since chaos closes the cycles (5) of switching opposite in meaning and complementing each other modes of rise-fall.

3 Results and Discussion

From the standpoint of the institutional-synergetic approach, a flexible system of territorial management with a special regime of doing business is presented in the form of a model with channels of positive and negative communication (Figure 1). Synergetic self-organization (choosing the direction of development at the bifurcation point and transferring the system to a new trend) is carried out by forming a positive feedback loop.

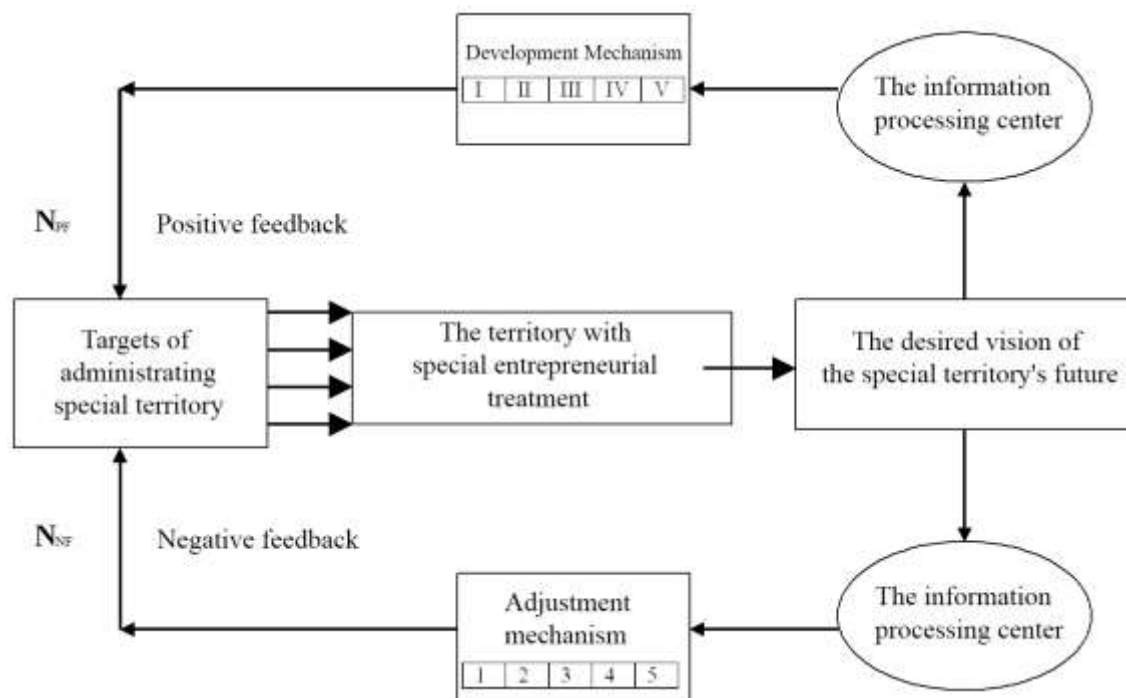


Figure 1: Management model of administrating territories based on institutional-synergetic approach

Cybernetic self-regulation through the negative feedback channel keeps the development of a special territory within the framework of a given trend (Table 1).

Table 1: Subsystems of the special territories management model based on the institutional-synergetic approach

Subsystem of cybernetic self-regulation	Subsystem of synergetic self-organization
Elements	
1. Basic constants of the special territory development strategy	I. Benchmarking special territories
2. Quantitative measurement of the territory's potential - assessment of the current state of the territory	II. Qualitative measurement of potential of the territory – the definition phase of the organizational development of key resident site
2. Key performance indicators - lagging indicators	III. Key performance indicators - Leading indicators
3. Evaluation, monitoring, comparing of actual results with performance indicators	IV. Monitoring of leading indicators and the development of proactive management decisions
5. Variance analysis, including the causes of deviations, the adjustment of system parameters, performance indicators	V. Adjustment of the strategic directions of activities of the desired image territory.
Function	
Stabilization and stability of the system, plays the role of a security in times of crisis, recession, decline and other undesirable tendencies that hinder socio-economic development of the territory	Development of the territory through the formation of the desired image of the future, the choice of strategic directions of development and ways to achieve them
Tools	
Balance method, linear programming, game theory, SWOT-analysis, PEST-analysis expert evaluation, statistical analysis, etc.	Foresight analysis, analysis of hierarchies, methods of forecasting the development of non-linear systems (fractal geometry, nonlinear programming, etc.)

At the same time, development institutions are constantly improving, not only coherently adapting to the constantly changing internal and external environment, but they themselves form changes that allow to bring the system to the development trajectory of the required quality at the bifurcation points. (6)

Through a system of basic constants, it is possible to formalize the spectrum of system-forming characteristics, boundaries and variants of control models and present them in the form of a dichotomy design. (7, 22, 23)

When considering the image of the future of a special territory, it is important to pay attention to the concept of “development”. In our research view, it is precisely “development” in the current realities of the Russian economy that is the key definition. A natural development process is a periodically arising choice of possible options for moving towards a given goal. Moreover, development options are often radically opposite at first glance

(externally), but with a deeper look, one can notice their interconnection and interaction (in their essence) - the action of the dialectical law of development “unity and struggle of opposites”.

Often, long-term adherence to one of the possible developmental options with the complete negation of the opposite leads to distortions and a halt to moving forward. Such examples are sufficient in the surrounding world, including in social development. The presence of only state property, with complete denial of private property, led to the abandonment of socialism and the difficult transition of Russia to capitalism with a drop in the income level of the country's population and other serious losses. At the same time, China is demonstrating a socio-political system with elements of two opposing forms of ownership with high annual rates of socio-economic development.

Resolution of the dilemma (the essence of the dichotomy) allows you to focus resources on selected areas of strategic development of the territory. This approach in strategic management is used both at the level of individual enterprises, and in the development of strategic guidelines for municipalities, regions, and the country.

A special territory, like an artificially created system, consists of specific elements whose work should be aimed exclusively at achieving the main goal (parts of the system that are not involved in achieving the main goal cease to exist). On the other hand, a territory, as a system, functions in a certain environment and interacts with other systems through established connections. Enterprises that become residents of a particular territory often do not find stable ties with the regional environment and other enterprises in the region. And this gives rise to risks: changes in the target settings of counterparties (primarily representatives of sales markets); changes in physical conditions for the movement of commodity, financial and labor resources between entities; sudden and unforeseen changes in the environment of the subject. (8, 14).

The development of basic constants in the formation of the concept should be carried out with the involvement of a wide range of researchers, active representatives of the business community. The result, enshrined in legislation at the federal level, will make the government's policy (9) more open, consistent and transparent, which is not unimportant for both existing and potential investors.

Our approach to developing a model for managing special territories is based on a dialectical understanding of the development process. Initially, the fundamental and most acute issues are formulated in the form of a dichotomy space, and then the one from two opposite positions is chosen, the negation of which led to imbalances in the socio-economic development of the country / territory.

With limited time and resource possibilities, spraying them in different directions, trying in practice various options for creating a territory with a special regime, figuratively speaking, stretching of the “fabric” of the realization of opportunities occurs, which makes it “narrower” and can lead to possible “gaps” (that is, failure to achieve goals, squandering budget funds, poor controllability of the project, etc.).

A control model based on a dichotomy system will

allow to detect and ignore information noise, save time and resources when choosing development directions.

The first element of the synergetic self-organization subsystem is “Benchmarking of Special Territories”. The study of foreign and domestic practices in the field of managing special territories will make it possible to formulate a classification of territories by development potential, which will make it possible to develop appropriate models for their functioning. At the next stage, constant benchmarking, as a tool for proactive management, will be aimed at identifying potential risks of not achieving strategic goals due to changes in the internal and external environment, which will allow timely development of coherent management decisions.

For example, the initial diagnosis of the socio-economic situation of territories that have received the status of territories of leading socio-economic development, allowed to classify these territories according to the potential for priority development. (10, 17, 19).

A qualitative measurement of the potential of the territory is proposed to be carried out on the basis of determining the phase of organizational development of a key resident of the territory on the basis of the concept of organizational development, the main provisions of which are formulated by I. Ansoff. According to his theory, the evolution of the management system for special territories (Table 2) will depend on the type of environmental uncertainty and the corresponding type of organization of the key resident. (8, 20, 21).

Table 2: The Classification of Development Organizations (I. Ansoff)

Levels of Environmental Turbulence	I. Ansoff
Repetitive	Traditional
Expanding	Manufacturing
Changing	Marketing
Discontinuous	Strategical
Surprising	Flexible

One of the principles of a proactive manager, which is based on the principles of an institutional-synergetic approach, is the timely monitoring of gaps in the development of the system, and based on this, the adoption of proactive management decisions (Table 3). An important element of the model of managing special territories based on the institutional-synergetic approach is the power of feedbacks. The value of this parameter affects the stability of the system (Table 4).

4 Summary

The development of the territory as an open system occurs during phase transitions, jumps, catastrophes under the influence of intra-systemic transformations, in states far from equilibrium, when there is a multiplicity (not uniqueness) of stationary states. Moreover, the instability of the system is considered as a potential source of

development and the basis for obtaining synergistic effects. An important element of the institutional-synergetic approach is the concept of self-organization, which is understood as self-development of the system, self-development of consciousness, self-regulation of the system in movement along a conscious trajectory. (12, 15, 18). To create the conditions for the accelerated development of a special territory, appropriate institutional support of the process is necessary, which is considered as a set of socio-economic institutions, relations and tools.

Table 3: Possible gaps in the governance model

Break type	Where evident
Between planning and the actual incarnation of plans in effect.	IV. Monitoring of leading indicators and the development of proactive management decisions
Between the planned effect of the embodiment, and the effect that is produced actually	
Between the variety of possible alternatives and the selection of one of them, which forms the basis of socio-economic development of the territory, and under which form the necessary resources.	V. Adjustment of the strategic directions of activities of the desired image area.

Table 4: Multivariate management model with two feedback channels

N	Possible options	Diagnosis of the situation
1	Power of positive feedback over the power of negative feedback	The system is developed, it is in a regime with peaking.
2	Power of positive feedback power less a negative feedback	The system is conserved in the development of
3	Equal power	The system is in the bifurcation (unstable) state

5 Conclusions

The institutional-synergetic approach is the art of managing complex systems that harmoniously combines chaos (freedom) and order. On the basis of this approach, a system for managing special territories is proposed, which is designed to create institutions and institutional relations in which territorial development will “continuously update, benefiting from unpredictable events, shocks, stressors and variability” rather than calculating losses (13,16). From incorrect management decisions in a constantly changing external environment. The resulting multiplicative effect of the functioning of territories with a special regime of

conducting entrepreneurial activity will enable us to transfer the country's development to a higher level in the future. At the same time, it is important not only to transfer the managed system to a new trend, but also to choose the best possible development option, that is, to obtain a synergistic effect.

Acknowledgements

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

Bibliography

1. Ivankina MS., Bondareva M.I. Evaluation of the performance of Russian special economic zones of an industrial-production type. *Economics and Entrepreneurship*. 2017; 5-1(82): 1048-1050.
2. Galiullina GF., Kuznetsov B., Fatkhutdinov AN., Priority development areas and "industrialization 4.0": Do not overlap trajectories. *International Journal of Engineering and Technology (UAE)*. 2018; 7(36): 1068-1071.
3. Sabanin S.A. Synergetic paradigm of the category of the future in the development strategy of complex social systems. // *Bulletin of the Tyumen State University. Ecology and nature management*. 2009. No. 3. P. 77-83.
4. Taleb NN. *Antifragile: Things that gain from disorder*. Random House Incorporated; 2012 Nov 27.
5. Knyazeva EN. *Odyssey of the Scientific Mind. Synergetic vision of scientific progress.* - M. 1995; 228.
6. Kuznetsov BL, Galiullina GF. Synergetic management - a pass to the future. In the collection: *Economic synergetics: innovative development of Russia, collection of scientific papers*. Ministry of Education and Science of the Russian Federation, Federal Agency for Education, State. higher education institution prof. Education "Kama. Engineering and Economic Academy"; [ch. ed. Kuznetsov B. L.]. Naberezhnye Chelny. 2007; 7-12.
7. Galiullina GF., Mironova TN., Makarov AN. The concept and the means of agglomeration processes controlling. *AMAZONIA INVESTIGA*. 2018; 7: 328-334.
8. Zausaev VK., Shishmakov VT., Shishmakov SV. Discussion platform how to live and manage in the Russian Far East? Leading socio-economic development territories - a new growth model of the Far East; assessing the socio-economic potential of the Far Eastern Federal District entities - the basis for choosing the mechanism of "socio-economic development territories (TOSED)". *Power and Administration in the East of Russia*. 2017; 1(78): 8-20.
9. Galiullina GF. The model of managing territories of advanced social and economic development. *Problems of the modern economy*. 2018; 1(65): 99-103.
10. Galiullina GF, Aetdinova RR, Makarov AN, Vasilyev AE. Classification of Territories of Advanced Socio-Economic Development. *Dilemas Contemporáneos: Educación, Política y Valores*. 2018 Dec 2;6.
11. Ansoff HI. *Igor Strategic management*. - New York: Wiley, 1979; 251.
12. Galiullina GF. Improving the industrial policy of a territory with a large machine-building complex. Abstract of dissertation for the degree of candidate of economic sciences. Institute of Economics of the Ural Branch of the Russian Academy of Sciences. Naberezhnye Chelny, 2008; 25.
13. Taleb NN. The black swan: The impact of the highly improbable. *Random house*; 2007 Apr 17.
14. Asif M. A Review on Pyridazinone Ring Containing Various Cardioactive Agents. *Journal of Chemical Reviews*. 2019 Jan 1;1(1, pp. 1-77.):66-77.
15. Thacker H, Ram V, Dave PN. Plant mediated synthesis of Iron nanoparticles and their Applications: A Review. *Progress in Chemical and Biochemical Research*. 2019 Aug 1;2(3):84-91.
16. Islam MJ, Kumer A, Sarker N, Paul S, Zannat A. The prediction and theoretical study for chemical reactivity, thermophysical and biological activity of morpholinium nitrate and nitrite ionic liquid crystals: A DFT study. *Advanced Journal of Chemistry-Section A (Theoretical, Engineering and Applied Chemistry)*. 2019 Apr 1;2(4, pp. 266-385):316-26.
17. Ahmadijeh N, Talebi Trai M. Computational NQR- NBO Parameters and DFT Calculations of Ampicillin and Zwitterion (Monomer and Dimer Structures). *Chemical Methodologies*. 2019 Jan 1;3(1, pp. 1-144):55-66.
18. Belwal CK, Patel J. Solvent-free synthesis for imidazole-1-yl-acetic acid hydrochloride: an intermediate for zoledronic acid. *Asian Journal of Green Chemistry*. 2019 Oct 1;3(4, pp. 418-549):483-91.
19. Hosseinzadeh Z, Ramazani A, Razzaghi-Asl N. Plants of the Genus *Heracleum* as a Source of Coumarin and Furanocoumarin. *Journal of Chemical Reviews*. 2019 Mar 1;1(2, pp. 78-170):78-98.
20. Itodo AU, Itodo OM, Iornumbe E, Fayomi MO. Sorptive chelation of metals by inorganic functionalized organic WOX-EDA nanowires: adsorbent characterization and isotherm studies. *Progress in Chemical and Biochemical Research*. 2019 Oct 18;1(1, pp. 1-59):50-9.
21. Haquea TA, Tabassuma M, Rahmana MJ, Siddiqueb MN, Mostafab MG, Khalaquea MA, Abedinea Z, Hamidic H. Environmental Analysis of Arsenic in Water, Soil and Food Materials from Highly Contaminated Area of Alampur Village, Amjhupi Union, Meherpur. *Advanced Journal of Chemistry, Section A: Theoretical, Engineering and Applied Chemistry*. 2019 Aug 23:181-91.
22. Mahdieh G, Fazilati M, Izadi M, Pilehvarian A, Nazem H. Investigation of ACE Inhibitory Effect and Antioxidant Activity of Peptide Extracted from *Spirulina Platensis*. *Chemical Methodologies*. 2019 Sep 15.
23. Noroozi Pesyan N. Synthesis of polyol esters by p-toluenesulfonic acid catalyst as synthetic lubricant oils. *Asian Journal of Green Chemistry*. 2017 Jul 1;1(1, pp. 1-55):41-5.