

Marketing management of innovation development potential concept based on closed cities in the Russian Federation

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System-wide importance of Russian territories' socio-economic development enhances their independence; they bear greater responsibility for the results of territorial economic development. In this regard, it is necessary to identify and update the marketing stance in managing the potential of these territories. The management of territories' potential needs to ensure high efficiency of all spheres and areas of their productive, economic and commercial activities, consideration of integration problems connected with structural development and utilization of territories' potential in general as well as coordination of different functions and resolution of potentially critical situations: migrations, ecological aspects, etc.

The standing and role of marketing management of territorially organized economic systems' potentials are dependent not only on macroeconomic conditions or opportunities of territories themselves but also on the arrangement of competitive strengths, mechanisms of competitive interaction in managing territories' potentials and their position in this interaction.

Closed cities in the nuclear industry (CATU, Closed Administrative-Territorial Unit) since their foundation up to the present moment play a crucial role in ensuring national security and defense capabilities.

The objective of this paper is to identify models to study and diagnose the marketing management of a potential inherent to nuclear industrial CATU and regions of presence considering the assessment of marketing management of

potentials in terms of ecological safety of territorial socio-economic systems, the assessment of living standards' impact on management of innovation development potential inherent to Russian territorial entities and Russian CATU as well as to model the format of organizational-economic mechanism for managing closed territories' potential .

It is critical to study different approaches when assessing competitiveness of nuclear industrial closed cities and regions of presence that are based on certain indicators making it possible to assess potential competitiveness of territories as an integrated sum of socio-economic development indices with due account for their importance.

Based on the monitoring of mono-cities' activities, they can be subdivided into three categories:

1. Category 1 – cities with the worst socio-economic situation;
2. Category 2 – cities that are at a risk of worsening of socio-economic situation;
3. Category 3 – cities with a stable socio-economic situation.

Thus, nuclear CATU as part of mono-cities are categorized the following way:

1. None of nuclear CATU is classified as Category 1;
2. Category 2: Zelenogorsk (Krasnoyarsk Krai);
3. Category 3: Ozersk, Trekhgorny and Snezhinsk (Chelyabinsk Region), Zheleznogorsk (Krasnoyarsk Krai), Zarechny (Penza Region), Seversk (Tomsk Region).

The analysis of CATU socio-economic situation carried out by the authors revealed a decline in a number of indicators (CATU budgets and inter-budget transfers, dynamics of average pay, living conditions compared to similar indicators for regions of presence, population changes in these cities) starting from 1992. Aggravation of CATU socio-economic situation is a serious challenge for further development of these territories.

We will now analyze three classes of approaches. A *conservative approach* suggests the absence of significant changes in CATU activities that facilitate the resolution of accumulated socio-economic problems. In other words, it proposes to “leave everything as it was and is”.

A *liberal approach* suggests eliminating CATU borders as the main problem that restricts city development in terms of developing entrepreneurship, investment and information exchange.

An *innovative approach* is based on development prerequisites premised on a combination of highly-qualified personnel and conversion production of nuclear city-forming enterprises. Multiplier effect from the use of the above-mentioned resources has to contribute to the development of civil innovative products. Partial opening of CATU borders is also proposed.

Considering negative trends in cities’ socio-economic development as well as their role in maintaining the activities of city-forming enterprises, it becomes evident that the conservative scenario will not lead to a positive outcome and may be will even worsen the current situation.

Opening of CATU borders while implementing the liberal scenario contradicts safe functioning requirements of city-forming enterprises. Thus, an innovative scenario that was actually proposed by different authors but with a more applied character amid Russian conditions and based on a systemic approach may be a possible solution to the problem of closed cities’ further development.

A comprehensive marketing approach taking into account, first of all, the importance of these cities in the provision of national security and defense capabilities especially in a current geo-political situation is required to solve the indicated problem.

Consideration of the encountered problem, an analysis of CATU socio-economic condition suggests that the problem needs to be solved not at the level of cities individually and separately from all the other economic entities but rather systemically through marketing management of innovative development relying on scientific and production potential inherent to nuclear industrial closed cities. Then,

both in the course of solving the indicated problems and implementing the suggested approach, it is required to increase automatically the level of CATU socio-economic development.

In the Russian context, a shift to a new technological mode is taking place amid a sharp decline in material and non-material production and scientific potential that happened during the transition from the USSR production system to the system with financial indicators of the national economic development trend. Scarcity of existing resources requires their concentration in areas which, on the one hand, allow creating a system of innovation potential expanded reproduction that compensates and replenishes incurred losses and, on the other hand, structural forms of this concentration could serve as a model for the creation of innovative structures in Russia in general.

Amid scarcity of material, non-material and financial resources and a free flow of capital that results in diffusion of those little resources possessed by Russia today, vertically integrated state companies based on those territorial production complexes, that due to the special character of their mission and functioning conditions managed to considerably maintain their production and scientific potential, may serve as such a form.

Naturally, such territorial production complexes are represented by Closed Administrative-Territorial Units (CATU) that maintained to a great extent their scientific and productive potential due to a special character of their mission. Utilization of their conversion potential that is not connected with the solution of purely defense tasks as an organizational unity but not in the shape of scattered productive assets integrated in the framework of external projects would be a natural form of their innovative resources concentration. A system of closed cities, while creating a compact protected territorial unity, can generate synergy within a special territory that has been organized following a common production and corporate principle and has a special status. It would allow testing not only new production forms but also innovative forms of managing the potential of a territory and

infrastructure that in terms of mainland would face challenges going far beyond technical issues of production and management optimization.

Vertical integration of property that suggests zero return in all segments of intermediary production for maximization of aggregate added value in the framework of corporate innovative projects serves as the basis for resource concentration and saving. It allows eliminating risks of excessive transfer of resources to intermediary production segments which would be the case if CATU transformed into ordinary Territories of Priority Social and Economic Development (TPSED) where resources would be scattered among private projects that are not connected by general concept and integrated into ordinary (not innovative) value added chains or as separate segments of new technological mode value added chains where end segments with maximum profits are located outside the country.

Such type of an innovative corporation based on CATU resources would be not only integrated in the perfect i.e. organizational and financial sense, but would also have its own territory in the form of corporate cities being an experimental area of territorial corporate agglomerations that could serve as a basis for an essential transformation of the state from an outdated national territorial scheme bearing political risks to natural forms of territorial economic organization.

On the basis of such innovative corporation under CATU, CATU units in charge of R&D could create an organizational and economic cluster with processing enterprises in closed cities, a chain of small and medium enterprises, facilities for utilization and recycling of household and industrial waste, educational centers for training and retraining of employees.

In such a corporation that is systematically focused on the development of the sixth technological mode elements and its organizational prerequisites, all production factors based on CATU scientific and production potential – material and non-material resources and assets – as a result of their integration would solely demonstrate high value added products of final demand both in the sphere of production means, the creation of new infrastructure for resource utilization and recirculation and in the sphere of high-technology consumption.

Such a conceptual approach to the creation of an innovative corporation under CATU would allow reconciling the idea of TPSED as a means of raising disposable decentralized capital with the need to create conditions for an accelerated shift to the new technological mode demanding the concentration of capital and creation of favorable conditions for its functioning. Amid such conditions, an innovative corporation on the basis of CATU would be an essential integrator of such capitals using TPSED mechanisms and at the same time preventing their nonproductive diffusion in the context of strict implementation of such legal form.

The final element of utilizing CATU as part of such innovative corporation is the creation and testing within such corporation of not only new production forms but also organizational forms with the use of the latest developments in cyber systems and artificial intelligence systems that eliminate the human factor from management decision-making at the most. An aggregate of such cities constituting an innovative civil corporation with the use of CATU material and non-material potential, while having an organizational resource, could create an innovative management entity that is dominating traditional organizational and territorial forms and transforming them in the paradigm of depersonalized management based on artificial intelligence learning systems and Big Data processing.

Solution to the problem of marketing management of these territories' potential allows making the first **working hypothesis**: *a conceptual approach in marketing management of these territories' potential will result in the creation of an innovative corporation under CATU. It will allow reconciling the idea of TPSED as a means of raising disposable decentralized capital with the need to create conditions for an accelerated shift to a new technological mode demanding capital concentration and the creation of favorable conditions for its functioning.*

At the same time, an innovative corporation would be under such conditions an essential integrator of such capitals using TPSED mechanisms preventing their non-productive diffusion amid strict application of such a legal form of marketing management of these territories' potential and is also the creation and testing inside such corporation of not only new production forms but also organizational forms

using the latest developments in cyber systems and artificial intelligence that exclude the human factor from management decision-making at the most.

Solution to the problem of marketing management of these territories' potential allows making the **second working hypothesis**: *the creation of innovative management entities dominating traditional organizational and territorial forms and transforming them in the paradigm of depersonalized management on the basis of self-learning artificial intelligence systems and big Data processing. In the future, it will allow creating a model for an aggregate of such cities creating an innovative civil corporation with the use of CATU material and non-material potential.*

The proposed concept for marketing management of innovation development potential on the basis of closed cities requires substantial adjustment of economic, marketing, industrial and tax policy as well as legislative amendments in terms of CATU status in the system of innovative development.