

## Interregional spatial integration: a theoretical aspect

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**Abstract.** The article substantiates theoretical approaches to the study of interregional spatial integration as a factor in the sustainable development of cross-border regions. Key activities in cross-border regions that ensure the effectiveness of processes for implementing spatial interregional integration were described.

**Keywords:** spatial integration, macroregion, approach, interregional integration

### 1. Introduction

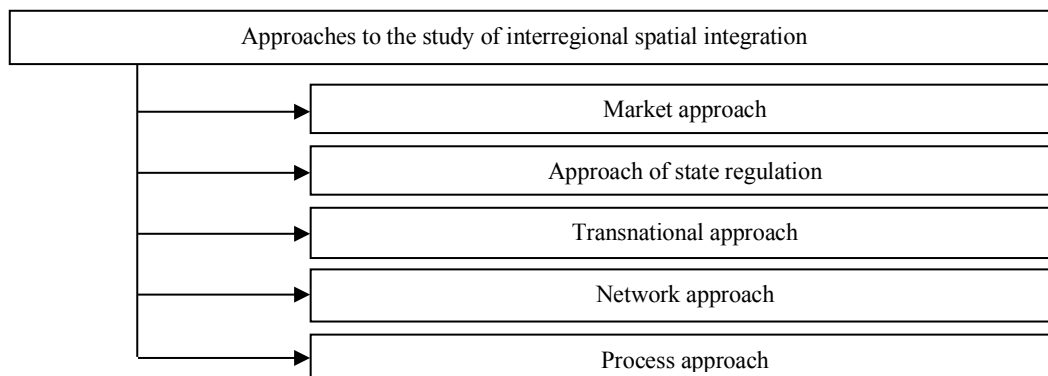
The views of modern scholars are increasingly turning to the study of inter-regional spatial integration at various levels (global, national, regional, etc.), in the activation of which processes the importance belongs to the border supporting cities. Modern realities of state relations, determine the formation and development of border supporting cities, taking into account their participation in the processes of sustainable development of cross-border regions. Under these conditions, the prospect of development of border supporting cities increasingly depends on “the capabilities of individual countries to develop adequate spatial development models for modern processes, namely, to identify and identify the real prospects for their integration with the border areas of neighboring countries.” According to M.A. Shipulin, an interregional spatial integration is the main condition for “overcoming interregional differentiation and the formation of a single economic space in the Russian Federation.”

The purpose of this article is to present the theoretical rationale for interregional spatial integration as a factor in the sustainable development of cross-border regions.

### 2. Materials and Methods

Interregional spatial integration is the focus of attention of a number of modern domestic and foreign researchers, among them we would like to distinguish the following: M. Alle [1], V. A. Babina [2], V. S. Bilchak, M. V. Bilchak [3], L. L. Bozhko [4], T. V. Voronina [5], S. L. Gogoryan [6], M. A. Dzhunusova; V. N. Zuev [7], D. Kalb, A. Kershaev [8], A. S. Maksimenko [9], E. A. Malyshev [10], D. A. Norkin, V. Ya. Cheglov [11], M. A. Shipulin [12] and etc.

The methodological basis for the study of interregional integration was formed by the several approaches presented in Fig. 1.



**Figure 1.** Approaches to the study of interregional integration [12].

*Market approach.* Representatives of the neoclassical school, such as M. Allais, B. Ballas, and others, consider interregional integration as the process of eliminating barriers to the interaction of regional markets for goods and services, capital and labor.

*State regulation approach.* Inter-regional integration is considered as a process of optimizing the distribution of functions between all subjects of market relations, with the state playing the main role in regulation.

*Transnational approach.* Inter-regional integration is a tool for the development of interstate intra-company space in which goods move freely, as well as labor, capital, technology. At the same time, data management is concentrated in the headquarters of a transnational company.

*Network approach.* Under this approach, interregional integration is a system of overlapping “macroregions,” which is characterized by cooperation between various administrative areas included in this macroregion and competition with areas belonging to other macroregions. At the same time, barriers are considered as an additional incentive for cross-border exchanges.

Applying the process approach, we can distinguish interregional spatial integration through its manifestation levels as a process of gradual penetration and merging of the spaces of cross-border regions through the format of close cooperation, strengthening comprehensive ties. The main levels of inter-regional spatial integration are: (1) spatial integration of regions within one state; (2) border spatial integration of neighboring regions of two states; (3) spatial international integration.

### 3. Results

In the framework of this article, interregional spatial integration is understood as the process of convergence of production potentials of several regions of neighboring states, which takes place on the basis of increasing commodity, resource, information and innovation exchange mediated by the appropriate infrastructure.

A. Kershayev, analyzing the concept of interregional integration, identified two fundamental patterns. First, the basis for effective integration is deep reproduction relationships between economic entities of countries and regions involved in the process of economic integration. Second, attempts to create integration formations based on links between economic entities that are not fixed by the process of reproduction can only lead to their unstable functioning under the threat of disintegration [13]. Thus, the key to successful inter-regional integration is the interest of all participants in the integration in the reproduction process.

The study of interregional spatial integration is primarily associated with globalization and cross-border cooperation. D. Kalba notes that globalization has become the main narrative of our time [14]. D. A. Norkin identifies the following main results of globalization: (1) economic transactions (investments, international corporations, international projects, etc.); (2) revolution in the field of communication technology, which led to the “compression” of time and space; (3) expansion of the scope of activities of international organizations; (4) interdependence of states in ensuring military

security [15]. These indicators can fairly be attributed to the directions of spatial interregional integration.

According to the researcher M. A. Dzhususovoy, the location of the Republic of Kazakhstan in the center of the Eurasian continent determines its special purpose as a place of international exchange of goods, capital, raw materials, labor and transit traffic [16]. The border regions of the Russian Federation and the Republic of Kazakhstan are of great importance for the national economies and in many respects determine the level of their competitiveness. More than 32 million people live in the border areas of the two states, which is more than 30% of the population of Kazakhstan and 18.5% of the population of the Russian Federation [17].

The border regions of Kazakhstan are characterized by a higher degree of orientation towards foreign trade with the Russian Federation, as compared with other regions. On both sides of the Russian-Kazakh border are the dominant regions in terms of exports (Tyumen Oblast and Atyrau Oblast) [18]. We assume that in these conditions it is legitimate to talk about the allocation of border support cities, the most accumulating export processes in these border areas as an independent object of study.

Given the common economic, historical and cultural factors that unite the countries of the former USSR, it can be assumed that interregional spatial integration between these countries is a natural way of development of states. Confirmation of this thesis can serve as information about the membership of the Russian Federation and the Republic of Kazakhstan within the framework of regional associations presented in Table 1.

**Table 1.** Participation of the Russian Federation and the Republic of Kazakhstan in regional associations.

State	CIS (1991)	CSTO (1992)	USRB (1997)	SCO (2001)	OSCE (2007)	EACU (2010)	WTO (2012)	EAEU (2015)
Kazakhstan	+	+	+	+	+	+	+	+
Russia	+	+	+	+	+	+	+	+

Thus, the integration processes between the Russian Federation and the Republic of Kazakhstan are a logical vector of development of two states. The pace of development of integration processes depends on the speed of equalization of economic potentials of border areas, namely the elimination of differences between individual regions of each state, and the elimination of differences in the development of territories located on both sides of the border [19]. Interregional integration processes act as a natural process of evolution of border areas at a qualitatively new level of industrial relations, focusing on innovation, science, education, and other promising conditions necessary for the development of the territory.

The processes of inter-regional spatial integration is aimed at a more efficient use of the potential of each participating region, and assumes the existence of common problems and / or interests of the territories. In conditions when the border area has a high level of development, it is possible to extrapolate its experience to less developed territories. On the other hand, less developed border areas can be further developed by providing cheaper resources, including labor. Thus, border areas are often limited in their development due to their territorial location, which encourages the use of the integration potential provided by tools and models of cross-border cooperation [20].

#### 4. Discussion

The modern practice of inter-regional integration processes is increasingly focused on interaction in such areas as: (1) investment attraction; (2) agro-industrial cooperation; (3) transportation logistics; (4) transport infrastructure development; (5) modernization of communications; (6) educational and cultural cooperation; (7) environmental protection and rational use of natural resources; (8) support of compatriots abroad residing in the border area.

In the process of implementing the spatial interregional integration, the key activities that ensure the effectiveness of integration are: (1) information support; (2) transportation support; (3) resource provision; and (4) technological support.

We note that information support includes work in such areas as: (1) government programs for the development of industries and specific industries; (2) development of venture financing for the implementation of innovative projects; (3) implementation of entrepreneurial innovations that have been successful in other regions [21].

Considering the interregional spatial integration, it is necessary to develop a system of indicators and performance evaluations of this process. So, V. A. Babina offers an assessment of indicators of the efficiency of integration processes in the border area, consisting of: (1) foreign direct investment shares; (2) share of innovative products in enterprises with foreign capital; (3) shares of participants of foreign economic activity and foreign trade turnover; (4) quality level of the structure of labor migration; (5) a growth rate of the share of enterprises with foreign participation, which have increased the tax return per employee; (6) a level of reduction of dependence on the import of basic foods; (7) a growth rate of the share of net exports to gross regional product.

It is obvious that the system of indicators and assessments of the effectiveness of spatial interregional integration cannot be limited only to indicators related only to the economic interaction of the territories of cross-border regions.

The effectiveness of spatial interregional integration should take into account the program and organizational documents of various entities, whose members are the border area [22]. So, L. L. Bozhko proposes to consider the speed, depth of cooperation, as well as the planned goals and joint decisions to be taken as an assessment of the level of integration interaction.

## 5. Conclusion

Thus, the essential characteristics of spatial interregional integration is a symbiosis of the three main approaches. First, it is a state of connectedness of individual industries and territorial economic systems. Secondly, such an integration determines the activity of uniting economic entities. Third, the spatial interregional integration will lead to a synergistic effect from the formation of a new economic integrity.

It is developing in a number of areas, creating conditions for the expansion and strengthening of economic, cultural, humanitarian ties between the border areas of the Russian Federation and neighboring states. Thanks to these processes, the economic and social infrastructure of the cross-border regions is being strengthened. Thus, the interregional spatial integration contributes to solving economic, transport, energy, utilities, environmental, socio-demographic, humanitarian, and other problems of the border areas through the implementation of interregional programs and projects.

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