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Theory and Practice”****IMPROVEMENT OF THE DEVELOPMENT MANAGEMENT  
PROCESS OF THE SAMARA-TOGLIATTI AGRICULTURE**

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***Abstract***

The relevance of the study of agglomeration processes is due to the fact that today, agglomerations are the most popular forms of territorial organization of settlement. In Russia with its vast territory, spatial factors play a great role in the development of the regions, agglomerations and the country. The development of agglomerations gives the region the opportunity to maintain and increase the competitiveness of the regional economy and further development of domestic consumer market. Agglomerations contribute to increasing the attractiveness of the region due to the accumulation of labour resources, business development and innovative educational environment. The development of the agglomeration also results in an increase in life quality of the population, an increase in the migration attractiveness of the region. In this regard, this article is aimed at studying the process of managing the development of the agglomeration, developing trends for improving the development of the Samara-Togliatti agglomeration. The article identifies 14 components of agglomerations' development. They are economic and institutional components. Within these components of agglomerations' development, the trends of the Samara-Togliatti agglomeration are identified, which are associated with the strategy of socio-economic development of the Samara region. The agglomeration development process must be regulated, since independent uncontrolled development can lead to negative consequences. In this regard, the model of management agglomeration system was elaborated taking into account the selected components with the definition of managing and managed subsystems and other elements of the system.

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**Keywords:** Agglomeration, agglomeration components, agglomeration development trends, agglomeration development management system model.

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## 1. Introduction

In Russia with its vast territory, spatial factors play a great role in the development of regions, agglomerations and the country as a whole. Issues of effective management of agglomerations' development are relevant today, since there is a need for comprehensive socio-economic analysis of territories' development. Improving the spatial development of the regions should be carried out in the direction of ensuring territorial integrity, as well as ensuring growth while maintaining comfortable living conditions for the population. According to the state policy of regional development of the Russian Federation, the development of urban agglomerations is a prerequisite for ensuring economic growth, increasing investment attractiveness, and competitiveness of the economy.

The development of agglomerations gives the region the opportunity to maintain and increase the competitiveness of regional economy and further development of domestic consumer market. Agglomerations contribute to increasing the attractiveness of the region due to the accumulation of labour resources, the business development and innovative educational environment. The development of the agglomeration also results in life quality of the population, an increase in migration attractiveness of the region. Therefore, today, when determining the region's development strategy, its spatial development is taken into consideration. For example, the Strategy of social and economic development of Samara region for the period until 2030 dated July 12, 2017 No. 441-FZ provides section 4 on these issues. In addition, the Russian Federation has the "Spatial Development Strategy of the Russian Federation for the period up to 2025" dated February 13, 2019 No. 207-p., which also defines the main trends of country's spatial development, including socio-economic development of promising large centres of economic growth - large and huge metropolitan areas. In particular, the cities of Samara and Togliatti, forming the Samara-Togliatti agglomeration (STA), are included in the list of promising centres of economic growth.

Despite the sufficient knowledge of agglomeration processes, availability of various assessment approaches, nevertheless, these issues do not have a system structure, a unified approach to assessing all the components of agglomeration development. As a result, the research of agglomerations' formation, its components, as well as improving the process of managing agglomeration's development is becoming a crucial task. At the same time, it is necessary to take into account both foreign experience in managing agglomerations and specific features of Russian spatial development of territories.

## 2. Problem Statement

The problems of agglomerations' development are reflected in the works of Russian scientists. In particular, Lappo and Honsch (2000), in his studies of the history of agglomerations development in Russia, noted that improving the economic structure of Russian cities, laws on environment protection and balanced settlement policy could potentially lead to a general improvement in life quality and economic opportunities.

Loibl, Etminan, Gebetsroither-Geringer, Neumann and Sanchez-Guzman (2018) see growth as the main driver of urban metropolitan areas. The main reason for the growth is people's migration to cities, which is caused by people's expectations to find more favourable living conditions.

There is research about the stages of spatial expansion of urban agglomeration (Fang & Yu, 2017); transport routes' overloading, which can be solved by forming a polycentric agglomeration model based on clusters, including efficient transport infrastructure (Tokunova, 2017) and the development of a model of transport demand (Yakimov, 2018). In addition to public transport, the authors of the articles also determine other directions for agglomerations' development: urban regulation, housing construction, social sphere development, and labour market (Popodko, 2017).

The issue of agglomerations' development is also essential for Chinese scientists who are considering a policy to optimize the development of Chinese urban agglomerations (He, Zhou, Tang, Fan, & Guo, 2019), issues of their sustainable development, design and operational management of agglomeration systems (Huang et al., 2020). There are articles with the research about the problems of agglomerations' development in Central and Eastern Europe, their main growth factors were foreign investment resources and clusters' creation (Starostina, Ustyenko, & Shevchenko, 2017). Agglomeration is considered as a centre for regional economic development based on tourism industry, sharing infrastructure, and adapting to climate change (Rahayu, Haigh, & Amaratunga, 2018). Some researchers determine the impact of agglomerations' development on the population's standard of living, creating comfortable living conditions, and obtaining high-quality educational, medical, and social services at reasonable prices (Bershinsky, Nepomnyashaya, & Shilova, 2012).

Thus, the authors will define certain aspects of agglomeration processes: production, labor, cultural, domestic, transport, but there is still no unified integrated structure that takes into account all the components of agglomeration processes. In addition, the methodology for managing socio-economic development of agglomerations in our country isn't elaborated yet. All of above-mentioned facts indicate the relevance of the research topic.

### **3. Research Questions**

Taking into account the gap in analysed works of scientists, there are following questions in the research:

- What components should be taken into account in the process of managing the agglomeration's development?
- What are the development trends of the Samara-Togliatti agglomeration?
- What is the model of agglomeration's development management system?

### **4. Purpose of the Study**

The aim of the study is to analyse the current state and to find ways to improve the development management process of the Samara-Togliatti agglomeration.

In accordance with this aim, the research seeks to solve the following main tasks:

- Identify the components of agglomeration development management;
- Determine the main development trends of the samara-togliatti agglomeration;
- Develop a model of agglomeration development management system.

The object of research is the Samara-Togliatti agglomeration. The subject of the research is organizational and economic relations in the process of managing the development of the Samara-Togliatti agglomeration.

The materials of the article are of practical value for programs' elaboration of socio-economic development at the regional and municipal levels, as well as the development strategy of the city of Samara and the Samara region.

The novelty of the research is the following:

- The components of agglomeration development management are determined;
- For each component, the development trends of STA are identified;
- The model for an agglomeration development management system was elaborated.

## 5. Research Methods

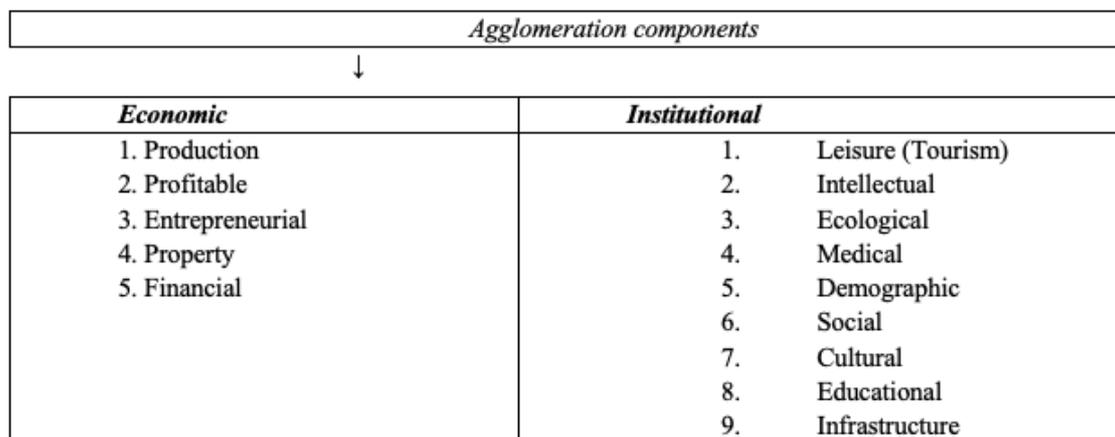
The following research methods were used: analysis and synthesis, deduction method, methods of graphical and tabular presentation of data, which allow considering issues in a complex way to improve the agglomeration development management model.

The study of the problem was carried out in three stages:

- 1) Theoretical analysis of the category of "agglomeration" and its components;
- 2) Defining the trends for improving the development of STA;
- 3) Practical development of a model for managing the development of agglomeration.

## 6. Findings

So, researchers mainly distinguish industrial, socio-economic, labour, cultural and recreational components of agglomerations. Based on the analysis of available research in the field of agglomeration, the following definition of this category can be formulated. The urban agglomeration is a compact spatial grouping of settlements, which are combined by diverse links into a complex system that has economic and institutional components, which include 14 more components (four economic and nine institutional ones) (Figure 01).



Source: authors.

**Figure 01.** Agglomeration components

These components must be taken into account in the process of managing the agglomerations' development.

The process of agglomeration development must be regulated, since independent uncontrolled development can result in negative consequences, such as:

- Territory's overload;
- Environmental pollution;
- Noise level increase;
- Reducing the number of green areas, the destruction of natural landscape due to active construction within the agglomerations;
- Traffic load;
- Lack of resources;
- Devastation of joint territories due to concentration of socio-economic potential in the agglomeration;
- Others.

Improving the spatial development of the Samara region should ensure territorial integrity, as well as maintaining the balance between industrial growth and maintaining comfortable living conditions for the agglomeration population.

At the same time, state support measures for the region and municipalities should contribute to:

- Reduce the impact of adverse factors;
- Identifying promising competitive advantages of territories.

In the Samara region, the Territorial Planning Scheme for the region was created, in which the settlement model in the region was developed. In this document, the Samara-Togliatti agglomeration is one of the keystones of the country, which has transport communications. On the basis of this scheme, another document was developed in 2016 - the Territorial Planning Scheme of the Samara-Togliatti agglomeration. It contains directions for STA spatial development.

Strategy of social and economic development of Samara region for the period until 2030 dated July 12, 2017 No. 441-FZ. defines three planning perspectives in STA development (from 2017 to 2030), we determine the main areas of STA development that are necessary to achieve long-term goals. And selected transitional phases show how accurate development trends of the territory are.

Thus, we will determine the main directions for STA development in the framework of above-listed components (Table 01).

**Table 01.** STA development trends

Components	Development trends
1. Economic:	
1.1. Production	Industrial basis development. Industrial production of the Samara-Togliatti agglomeration will be built in satellite cities and suburban areas of the agglomeration. With this development, industrial production will have access to all agglomeration's advantages, and at the same time they will not interfere with the development of agglomeration cores. Priority clusters: automotive, aerospace and petrochemical. On the territory of the agglomeration, industrial parks are proposed to be created in key industries that will attract investors to the region, and will also set the direction of spatial industrial development in the agglomeration

1.2. Profitable	Raising the income of the population to the level of developed European countries. Absolute poverty reduction. Creation of new highly qualified jobs. Creating conditions for increasing the middle class in the region
1.3. Entrepreneurial	Increasing the economic activity of the population due to the development of small business. Creating favorable environment for living in rural areas, attracting and activating business community. Improving mechanisms to ensure migration mobility of the population. Improving the competitiveness of agriculture, stimulating import substitution. Maintaining a high level of investment attractiveness of the region.
1.4. Property	Improving the availability of housing for families with children, including preferential mortgage programs. Improving the housing and its comfort to the standards of European countries. Improving the living conditions of citizens living in a dilapidated housing.
1.5. Financial	Developing the areas of financial support for STA development (investment, credit resources). Development of initiatives to attract financing in key agglomeration clusters (credit resources, direct investments, etc.).
2. Institutional:	
2.1. Leisure (including tourism)	Development of a tourism cluster in STA. The development of tourism based on high natural, recreational, historical and cultural potential of the region. Promotion of STA brand. Using the potential of water transport to expand tourist routes. Organization of new tourist routes. Improving the level and quality of tourist services. Increasing the attractiveness of STA territories for both Russian and foreign tourists.
2.2. Intellectual	Strengthening the concentration of human capital, infrastructure, resources and their effective use on this territory. Improving the level of human development.
2.3. Ecological	Development of the concept of agglomeration's industrial areas taking into account environmental, urban planning, environmental restrictions. Implementation of a unified environmental policy on STA territory and implementation of measures to preserve the Zhigulevsky State Nature Reserve and Samarskaya Luka National Park. Forest restoration in STA municipalities. Recovery within STA boundaries of disturbed natural ecological systems. Development of an integrated system for the collection, recycling and processing of production and consumption waste in the STA. Elimination of accumulated environmental damage and recultivation of former industrial sites. Ensuring environmentally oriented economic growth.
2.4. Medical	Development of a medical cluster, construction of health facilities and education in the STA.
2.5. Demographic	Increasing birth rate and improving the well-being of families with children. Reducing mortality and improving public health through the formation of healthy lifestyle. Maintaining health of older citizens and improving the quality of their lives. Increasing the migration attractiveness of the region. Increasing the value of the indicator "Life expectancy at birth."
2.6. Social	Development of STA social infrastructure. Construction and modernization of the objects that have general agglomeration importance. The development of infrastructure projects (including transport) will coordinate the intercity migration of employable population and will affect the stabilization of social and labor situation and creation of comfortable conditions for living and doing business. Development of measures to optimize the employment of agglomeration population. Creating an effective social support system. Improving the support system for disadvantaged population.
2.7. Cultural	Preservation and popularization of objects of cultural and historical heritage. Construction of sports complexes of various kinds on STA territory.

	Rational involvement of the potential of unique natural objects of STA in the development of cognitive and ecological tourism. The use of traditional cultural and social events held on the territory of STA municipalities as a basis for event tourism.
2.8. Educational	Educational cluster development. Implementation of initiatives to optimize the network and develop important elements of vocational education system in the metropolitan area. Preparation of proposals for optimizing the mechanism of inter-municipal coordination of vocational education programs in the STA.
2.9. Infrastructural	Development of transportation and logistics infrastructure. Creation of high-speed transport infrastructure, suburban river transport, road network and public transport. Construction of bridge crossings and transport and logistics centers. Development of high-speed interregional routes for the passengers by inland water transport between the largest cities of the Samara region “Samara-Togliatti”, “Samara-Syzran”, “Samara-Novokuybyshevsk”. The development of tourist and innovative infrastructure.

Source: authors.

Thus, the effective implementation of STA Concept is due to the use of management mechanisms, coordination in resources’ distribution in the areas of agglomeration’s development, interconnection and communication of all urban community of the agglomeration. For the effective use of cities’ potential, strengthening the innovative component of agglomeration’s development, state participation is required, implying the change in the relevant legislative framework, taxation conditions, the effective use of road funds, as well as effective inter-municipal relations.

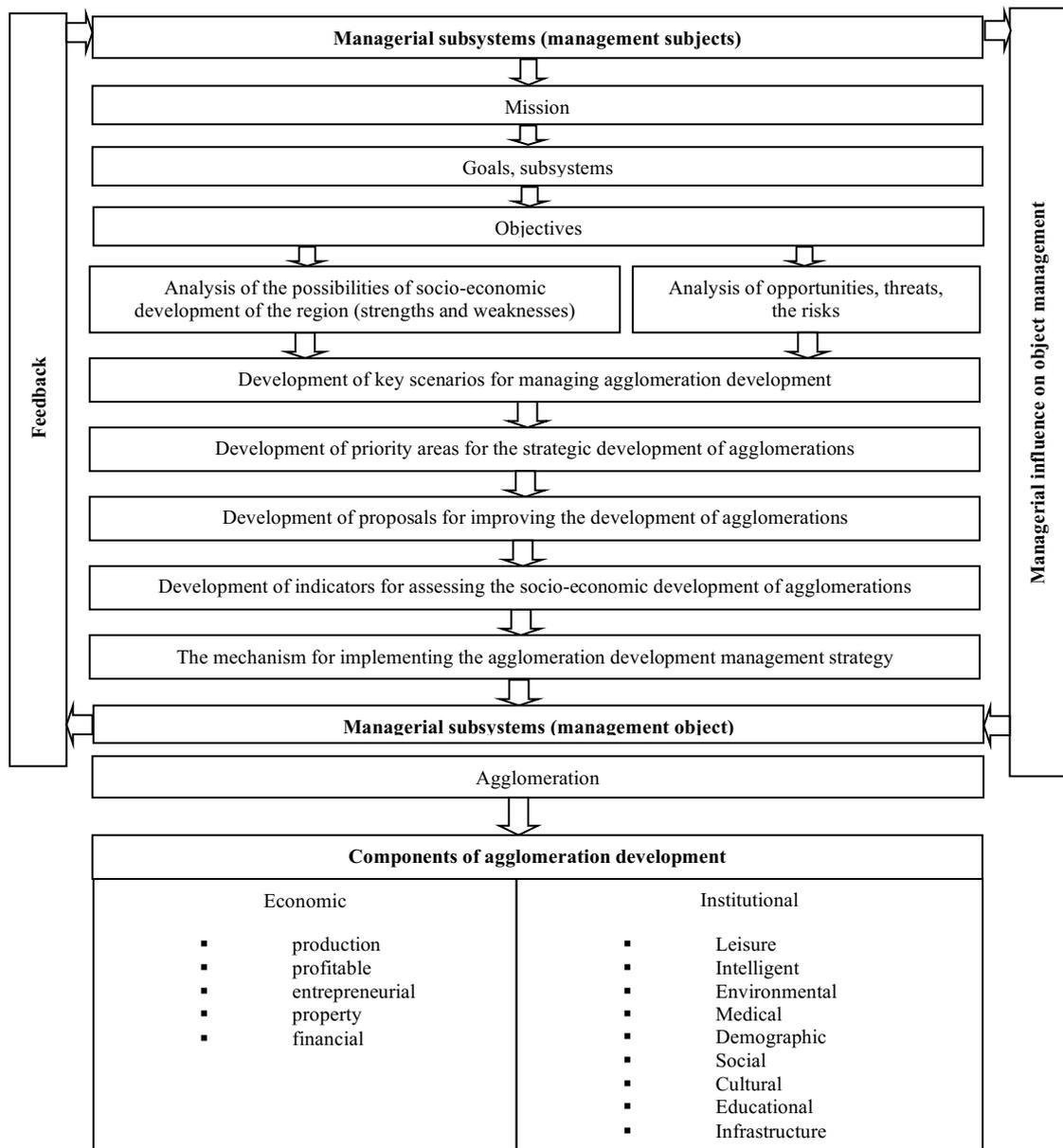
The agglomeration’s transformation is a long process for changing the industrial component, its updating. Only a professionally elaborated and consistent document can become the basis for such a course of events.

In his message dated 27/03/2019, the governor of the Samara region Azarov (2019) identified priority areas for STA development, this is the creation of:

- A unified, complementary social infrastructure;
- Unified labor market;
- Clear, transparent compensation mechanisms for local budgets that bear additional burdens or lose revenue sources;
- A unified transport system that allows using available resources efficiently.

The spontaneous agglomeration’s development gives rise to very serious imbalances that require state regulation and serious investments in infrastructure. In addition, from a managerial point of view, it is important to set the necessary direction of development to ensure the maximum agglomeration efficiency, when the cities of Samara and Togliatti will complement each other, rather than deplete resources (Khmeleva, Ioda, & Balandina, 2014). To manage the agglomeration system, it is necessary, first of all, to amend the legislation at the federal level.

Based on the author’s interpretation of the category of agglomeration development, as well as taking into account the components of this category, a model for managing agglomeration development has been developed (Figure 02).



Source: authors.

**Figure 02.** Model of an agglomeration development management system

Thus, in order to turn STA into a competitive center of the Russian Federation, which is attractive for living and doing business, it is necessary to coordinate work of government bodies at all levels. It is important to pay great attention to infrastructure development and STA development management. Moreover, the mechanism is needed to attract public-private and municipal-private partnerships.

## 7. Conclusion

The analysis shows the favorable prerequisites for the development of the Samara-Togliatti agglomeration as a priority zone not only in the Samara region, but also in the Volga Federal District and Russia as a whole. The research identifies the components of the agglomerations' development: economic and institutional. Within the marked components of agglomerations' development, the development trends

of the Samara-Togliatti agglomeration are identified, which are associated with the strategy of socio-economic development of the Samara region. The agglomeration development process must be regulated, since independent uncontrolled development can lead to negative consequences. In this regard, the research developed a model of the agglomeration development management system, which is built taking into account the selected components with the definition of controlling and managed subsystems and other elements of the system.

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