Development of investment zones in the renewal model for a former industrial city: Case-Study of Chattanooga

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Abstract. The article describes the advanced experience of the USA which have been developing investment zones in modernizing the economy and the planning structure of cities using the example of Chattanooga (Tennessee). The initial state of the economic and social decline of Chattanooga in the early 1980s is described. The results of the analysis of social groups that initiated the process of modernization of the urban economy in the first half of the 1980s are presented. The importance and role of urban planning and new land management policies implemented in Chattanooga are identified. The initial and strategic aspects of the economic growth which have become drivers of the urban development are identified. The role and importance of tourism, new tourist attractions and a new network of natural parks, which became the basis for the tourist flow at the national level, are described. The types of new investment zones are determined and their connection with the development of the planning framework of the city is described.

1. Introduction

The issue of conversion of the economies of former industrial cities, where one or several enterprises of the same industry formed the economic basis of the urban life, has become relevant in Europe and the USA since the early 1980s. Currently, this issue has also become relevant for Russia. The successful experience of conversion and subsequent post-industrial modernization of Chattanooga (Tennessee) is important and valuable for the theory of urban development and conversion of obsolete economic forms. Chattanooga’s renewal was based on local urban resources (investment activities of Chattanooga’s entrepreneurs, well-calculated municipal land management policies and activities of public organizations and volunteers).

Federal funds, state loans, and corporate sponsorship were used for the urban renewal, but did not play a decisive role. The experience of modernizing the economy and urban life of Chattanooga has become widely known and recognized. This experience has been widely discussed and used by other US cities. In Europe and Russia, the municipal experience of Chattanooga’s development is much less known.

2. Methods

When conducting a study on investment zones and their effectiveness in Chattanooga, several methods were used. The author’s internship in Chattanooga organizations in 2003 (the SouthEastern Center of the National Association of Recreation and Parks, the Architectural and Planning Department of Chattanooga and the architectural company “BWSK”) allowed the use of the included observation...
method. It provided the author with knowledge of specific measures aimed at modernizing the city. The sociological analysis made it possible to determine features of the urban population and identify social groups that were initiators of the revival of the Chattanooga economy and renewal policies. The literature and press analysis identified views on the importance of the experience of Chattanooga for the theory and practice of urban planning. This experience was recognized a valuable contribution to the practice of modernizing US cities and towns at the national level. Chattanooga Magazine (1999-2003) was analyzed. Very important information was obtained using the Interview Method. 10 interviews of urban planning experts and representatives of public organizations were conducted. The analysis of urban planning documents - Master-plans and economic development schemes - determined features of urban development and the method for developing investment zones in the urban planning framework.

3. Basic stages of the renewal of the city

By the beginning of the 1980s, in developed countries, many large and medium-sized cities have experienced the influence of new trends in the global economy. During this period, the economies of developed countries began to adapt to the new level of information technology and post-industrial development. The traditional industries (metallurgy and metalworking, coal production, railways, textile and mining industries) began to play an insignificant role. Accordingly, a large number of industrial enterprises have lost their significance.

The process of restructuring priorities of the global economy affected developed countries - the United States and Western European countries. Many US cities, where coal, metallurgy, or chemical industries were developed, faced serious problems - reduced production, lower tax revenues, increased unemployment and social stress, large areas of abandoned enterprises, pollution, factors threatening the environment. In many US cities, these problems require urgent practical solutions.

The theory of urban management, like many other related disciplines, was not able to develop recommendations and formulate approaches to solving pressing urban problems. It was necessary to develop a new theoretical approach to the urban development and new models of urban processes.

Chattanooga city (Tennessee) is one of the US cities that have found ways out of the crisis and solved the problems of restructuring the urban economy in the mid-[Gratz, 1989].

It is a relatively small city with a population of 150 thousand inhabitants. It is located on both banks of the Tennessee River in the southeastern part of the state. Since the mid-19th century, the city has been a regional center for metallurgy and metalworking. Metallurgical plants and timber processing enterprises along with rail transport enterprises formed the basis of the urban economy. The metallurgy used cheap coal delivered from the Appalachian region by rail.

Wholesale business was crucial for the urban economy and budget. Since the mid-1930s, the city has hosted the Tennessee Valley Development Administration created according to the federal program developed by Roosevelt’s Administration. A cascade of hydroelectric power plants was erected near the city. It became the basis for aluminum enterprises formed near Chattanooga.

In the postwar period, the economic development slowed down. Since the late 1960s, the city began to experience signs of the economic stagnation.

Since the mid-1970s, Chattanooga has been in a serious crisis. Metallurgy and timber processing enterprises were closed down or are being closed down. The railways reduced traffic and have experienced serious difficulties in competing with road transport enterprises. Wholesale trade enterprises ceased their activities.

By the pollution level, the city was one of the most disadvantaged ones in the country. According to the environmental situation, Chattanooga is the dirtiest city in the United States.

A logical consequence of the economic stagnation was a dysfunctional social situation. The levels of unemployment and urban crime were growing. The funding of the municipal education system was reduced which decreased the number of school curricula. The number of students and teachers decreased as well. The outflow of wealthy residents began. They moved to other cities with well-paid jobs and safer social environments.
The need for radical changes in Chattanooga was recognized in the early 1980s. Initiative public associations and the municipality developed and began to implement a program aimed at reviving the city [Chattanooga’s R.2002].

The Chattanooga development and renewal program is one of the most successful examples of the revival of urban economies in the country. Twenty years of thoughtful and coordinated measures taken by city authorities, public associations and entrepreneurs have improved the social and environmental situation in the city. By the end of the 1990s, the success of Chattanooga in transforming its economy, restoring the ecological parameters of the urban environment and improving living standards were recognized by all urban development experts, politicians and US citizens. The American environmental urban planning theorist Timothy Beatley argues that Chattanooga’s practical renewal program was one of the best US programs. Its results were outstanding [Beatley, Maning, 1997].

In the late 1990s, the city became one of the 10 best US cities by the urban environment and convenience. The city was called a “Family-Friendly City” for several years. The success of the post-industrial development of the urban economy was impressive: the city has attracted new residents and capital. It has become a center of advanced education methods and modern technologies, one of the most dynamic tourist centers in the South of the USA.

These impressive achievements were the result of a strategic model for the urban development adopted in the early 1980s.

The strategic development model for Chattanooga city has the following features:

First, public associations (real estate owners and entrepreneurs) have developed a strategic model for the urban development and initiated the city movement for improving the economic and social situation.

Second, the main efforts to improve the situation were focused on solving environmental problems and restoring the natural environment in Chattanooga. The initiators of the program made environmental issues a core of the urban revival program. The image of the Tennessee River was chosen as a symbol of the urban revival at a new stage of the history of Chattanooga. The word "River" became one of the most common in individual projects within the strategic development model [Demchenko, 2013].

Third, the initiators chose the main city revival project, the Leading Project, which fundamentally changed the role and image of the city in the region. It has become the core of the Chattanooga Revival Program for 10 years. A project on the construction of a large tourist site was developed and implemented. The Tennessee Aquarium, the largest freshwater aquarium in the United States, has become a major tourist attraction. The advertising campaign contributed to the popularity of the Tennessee River Museum of Nature in the US South. The new Aquarium made Chattanooga famous for being the city having the world's largest collection of freshwater animals and plants [Gulyaeva, 2019].

The fourth important feature of the model was constant, detailed and careful monitoring of both the implementation of the model and results of the measures taken. The public associations created at the beginning did not break up and disperse. They continued to develop individual projects and monitor the implementation of the development model [Gulyaeva, 2019].

Formally, the beginning of the city’s revival is 1984, when the Chattanooga Venture Fund business association held a session of the city seminar “Perspective Vision 2000”. Based on its results, it published the model of the city’s revival - “Workbook of Opportunities and Obligations”. It was a new development strategy for 20 years. After a year of hard work, the main planning document of the new strategy was published and put forward for discussion. It was the General Plan of the Tennessee River Park. Economic development was initiated in the territories adjacent to the River Park, while the park itself was the result of restoration of contaminated and abandoned sections of the former industrial territory [Chattanooga’s R.2002].

In May 1992, the Tennessee Aquarium Museum was opened. By the end of the year, the Aquarium received one million visitors - a large number of tourists for a city with a population of 150 thousand inhabitants. It revived the economic life - incomes of restaurants, cafes, souvenir shops located in the historical part of Chattanooga sharply increased.

In 1993, nine years after the start of the City Renaissance Program, the new citywide seminar “Perspective Vision 2000” verified the results achieved and set new city development goals.
Since 1993, travel and large private companies have invested in the construction of new hotels in Chattanooga, believing in the viability of the city. In a series of new hotels, the first object is “The Riverside Apartments” - The River Side Hotel.

During the 1990s, in Chattanooga, new hotels were built, new restaurants were opened and the system of urban public transport was renewed. Municipal authorities and public associations support the current tourist flow - festivals and events attracting tourists are held throughout the year (“Annual Brewers Festival”, “Wine Festival over the Water”, “Concerts of Pop Music on the River”, Days of nature, parks, Harley-Davidson Motorcycle Fans, the nine-day River Ribbon music festival attracting music lovers from all over the country). The local private company "River City" plays a huge role in the revival of Chattanooga. It was created for developing the downtown.

Future development modeling was carried out by researchers, entrepreneurs and public organizations. Some researchers - geographers, ecologists, and sociologists - participated in the development of the strategic model on a voluntary basis. Other researchers - ecologists, biologists, geographers, architects, economists - were involved in the development of the model as hired specialists. Charles Landry said that public organizations had helped use advanced methods for developing a strategic model for Chattanooga [Landry, 2000]. They developed individual parts of the general model for the city development.

4. Types of investment zones
The main difference between investment zones created in Chattanooga from the usual practice of attracting investment in cities is a deep comprehensive calculation of main directions of the urban economic policy. The city authorities and representatives of public organizations defined ecology as a strategic direction for the urban revival. Each investment proposal was assessed based on the strategy of restoring ecological qualities of the urban environment. The specialization of each investment site should be part of the overall economic and planning development of the city. Taking into account interests of investors, the city planning department created favorable conditions for [Polyakova, 2010]. Cultural sites were also considered as investment zones by city planners.

The first investment zone was located along the Tennessee River Park on the river banks [The New Downtown Plan, 2003]. Some investment sites were included in the Park (e.g., the Tennessee Aquarium Museum in the city center). The Tennessee Aquarium has become a national attraction for tourists. It was built in 1992. At the beginning of the 21st century, local and national business parks were built in the investment zone of the River Park. The tourism-related investment area (hotels, restaurants, shops) was created in the historical center of Chattanooga. On the periphery of the city, on the territories of former metallurgical plants, several investment zones of modern technologies were created: enterprises designing and producing urban electric transport, solar energy, information technology. The spatial position between these enterprises and the tourist investment zone was occupied by a rapidly developing investment zone of offices and administrative buildings. In Chattanooga, investment in new housing construction is still insignificant in comparison with investment in other types of real estate.

5. Results
The study identified methods for developing investment zones on the basis of cultural and educational facilities. The interrelation of strategic urban planning strategies and the search for profitable investment sites meeting investors’ interests was shown. The renewal experience, the experience of creation of investment zones in a new, post-industrial economy is relevant for many cities and towns and modernization of Russian single-industry towns.

6. Conclusion
The modernization of Chattanooga was carried out due to a thoughtful interdisciplinary approach applied to develop a model for a new stage in the urban development - “The Workbook of Opportunities and Obligations” of 1984. This development model was a guideline for the development of Chattanooga.
Environmental and cultural issues have become crucial for attracting investment in the urban economy. Based on the 30-year city renewal experience, one can argue that the development strategies were rational. In conclusion, it should be noted that the general strategy has been implemented by public associations of Chattanooga city. Charles Landry said that public organizations had helped use advanced methods for developing a strategic model for Chattanooga. The American environmental urban planning theorist Timothy Beatley argues that Chattanooga’s practical renewal program was one of the best US programs. Its results were outstanding.

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