DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

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CONSIDERATION OF ANALYTICS OF CITY BRAND MODELING IN THE CONTEXT OF POST-WAR DEVELOPMENT OF UKRAINIAN TERRITORIES

The object of the article is the formation of marketing priorities for the successful development of a domestic city. The subject of the article is analytical tools for modeling the city brand. The article analyzes the current problems of branding territories in the context of intensified competition for resources and factors of production in postwar Ukraine. The authors consider the city's brand to be a kind of unique resource that will play an important role in the competition of territories. That is why, in the process of post-war development of domestic cities, the strategic vision of which should be formed now, even before the end of the war, it is necessary to identify the elements of the urban environment that will form the basis of the city's brand. The need to develop a city's (territory's) brand, taking into account the new reality, actualizes the scientific search in this direction. The research methodology is based on the fundamental provisions of the theory of branding and spatial identification, as well as the theory of stakeholders and its working tool – stakeholder analysis. The peculiarities of identifying stakeholders in the city development, their systematization and assessment using the tools of stakeholder analysis are determined. The approaches to the formation, definition and organization of the needs of the territory, taking into account the strategic context, are substantiated. The formalization of stakeholder behavior practices through the use of theoretical game models is recommended. The results of the analysis of the possibilities of using international ratings for the development of territorial (primarily urban) branding strategies are presented. The main trends in urban innovation, which focus on the creation of «smart» cities in post-war Ukraine, are outlined. The results obtained outline a set of complementary analytical methods and tools, the practical use of which will make it possible to modernize the branding of domestic territories. The proposed approach to the formation of a city brand based on the introduction of stakeholder analysis with appropriate tools can play an important role as a basis for creating effective methods of territory brand management. As well as the formation of strategies for their development, taking into account the strengths and weaknesses and development potential for the growth of the welfare of the population of the territory and Ukraine as a whole.

Keywords: *city brand, territory branding, stakeholder analysis, post-war reconstruction, city ranking, Smart City.*

1. Introduction

The war in Ukraine is destroying vital infrastructure, devastating regional ecosystems, and destroying cities. Large-scale projects for the post-war reconstruction of the country are being developed and are now being implemented. With limited funds, competition for resources and production factors is expected to intensify. As is well known, such competition can take on different forms: inter-sectoral, inter-regional, and between individual cities. Cities will compete primarily for innovative technologies and highly skilled labor. However, in analyzing the competitive advantages of a city, a brand as a unique resource will play a significant role.

Currently, the scientific community has developed many modern concepts of territory branding, among which it

is worth highlighting author of [1], as well as his followers [2–5], and the corporate marketing «guru» [6], who in their developments relied on the concepts of brand leadership and strong brand put forward by author of [7]. Analyzing the practices of territory branding, scholars also identify the reasons for unsuccessful problem solving, such as the complexity of spatial identities [8], the poor choice of the target audience and its rejection of the brand content [9], and the vagueness of the perception of the identity of places [10]. The rapidity of changes in modern life requires its reflection in brands, and, accordingly, there is a need to develop adequate models and tools for forming a city brand.

This problem is of particular importance for the post-war reconstruction of the regions of Ukraine, which have suffered physical destruction and moral social breakdowns

to varying degrees. A decent positioning of cities should be the basis of the state regional policy and can significantly contribute to the competitiveness of territories in the domestic and international markets. In the process of developing domestic cities, their brands should be formed taking into account the new reality, which actualizes scientific research in this area.

The object of the study is the formation of marketing priorities for the successful development of a domestic city.

The purpose of the study is to select analytical tools for modeling the city brand in the context of post-war development of Ukraine.

2. Materials and Methods

The fundamental provisions of the study are the theory of branding, the theory of stakeholders and its working tool – stakeholder analysis. To assess the rational limits of the appropriate use of stakeholder analysis and city ratings in relation to brand modeling, the method of comparison and contrast is used. The generalization is the authors' conclusion.

3. Results and Discussion

Historians believe that branding of territories as a phenomenon of public life emerged in the tenth and eleventh centuries, long before the scientific recognition of its theoretical model. In those ancient times, people intuitively used various methods to promote their territories to attract resources. In the 50s of the last century, territorial branding gained momentum. The first projects of integrated branding of regions and countries began to appear. As a result of the analysis of best practices in the 90s, scientific generalizations and theoretical and methodological developments of the problem appeared. It is believed that the term «place branding» was coined in 2002 one of the world's leading branding experts [1]. He also became the main developer of a comprehensive, differentiated approach to place branding as opposed to a specialized, mono-directional one, as it was perceived by science and practice at that time. It was Anholt, who proposed the original concept of competitive identity, presented in the form of a hexagonal model, each corner of which stands for an element of a modern territory brand, namely tourism, export brands, politics, business and investment, culture, and people.

It is worth noting that the brand culture itself has penetrated the urban marketing environment from the corporate sphere, where the term originated. It is likely that this borrowing was due to tourism, which is close to corporate business.

The analysis of modern methodological approaches to territory branding has led to the conclusion that the formation of a city brand is a complex, multifaceted procedure that depends on many factors of the internal and external environment. For a considerable number of domestic cities, this process has been spontaneous for decades under the influence of recurring events or characteristic assessments of the place, residents, customs, and other attributes of the territory. For the current situation, a purposefully formed brand is more effective, as it is more in line with the comprehensive approach proposed in the concept of competitive identity [1–6].

Analysts believe that any territory can become a powerful brand with a competent approach, and the most likely candidates for branding are territories that are experiencing a crisis. According to a well-known specialist in territo-

rial branding, Sikko van Gelder, such territories can be classified as follows:
– places experiencing strong and growing competition;
– geographical entities facing complex development challenges;
– places experiencing a slow and steady decline;
– places that have overcome the crisis and need to be renewed [11].

Currently, there are virtually no areas with economic, social, and cultural stability left in Ukraine, which confirms our conclusion about the urgent need for large-scale branding. For almost every one of these groups, there are many counterparts in Ukraine. Moreover, the post-war reconstruction of Ukraine's territories requires not only the transformation of existing brands but also the creation of new ones that are in line with the new realities.

When developing or updating a city's brand, let's believe that a certain procedure should be followed. Firstly, to diagnose the existing image of the territory, secondly, to analyze the real situation, and thirdly, to identify and analyze the needs of the territory, taking into account the strategic context.

A key factor in the success of this work will be the involvement of a wide audience in collecting information, analyzing it, and discussing the results, which should be understandable to specialists and non-specialists. It is also important to involve the scientific and expert community from various fields of knowledge at each stage to ensure that brand modeling is based on an adequate theoretical and methodological basis and takes into account an interdisciplinary approach.

In our opinion, one of the most difficult stages of modeling a city brand is identifying the needs of the territory. The point is that a territorial brand is considered much more complex than its varieties in corporate management. The functional purpose of the city brand is addressed to quite a few heterogeneous groups of society, whose needs usually do not coincide and sometimes even become contradictory.

The key target audiences in territorial branding are the following:
– local population;
– public authorities and local governments;
– business structures;
– investors;
– guests of the territory (employees and students who came from other places);
– internally displaced persons;
– mass media;
– opinion leaders;
– the international community.

To identify and assess the needs and influence of each of the stakeholders, it is advisable to adapt the stakeholder analysis that has successfully proven itself in the strategic management of corporations.

It is known that the emergence of the stakeholder theory of the firm is associated with the publication in 1984 of the pioneering monograph by R. E. Freeman [12], in which he also introduced the concept of «stakeholders' engagement». According to the author's definition, the company's stakeholders include «any individuals, groups or organizations that significantly influence the decisions made by the firm and/or are influenced by these decisions» [12]. Freeman's generalized list of stakeholders included the firm's owners, employees, customers, competitors, suppliers, the state, local community organizations, etc. According to the key provisions of the stakeholder theory, all stakeholders should be considered

as a single contradictory whole, the equal strength of the interests of its parts will determine the trajectory of the organization's development in the context defined by the goals.

Over the past four decades, the analytical tools of stakeholder theory have been actively implemented in management practice. At the same time, there are still «bottlenecks» within this section of management that limit the possibilities of building applied models based on stakeholder analysis. First of all, it is about the strategic context of the organization, which determines the correctness of the initial stages of the stakeholder analysis, namely: compiling a list of stakeholders and defining a formal description of the behavior of each group, taking into account their heterogeneity in terms of both the degree of interest and the level of influence.

For a city, stakeholders are primarily its residents, who are at the same time brand bearers, owners, and consumers, as if they owned a certain part of the shares in the company whose products they use. Stakeholders, according to the already mentioned territory marketer van Gelder, are not an ordinary social movement or a committee representing people with different views; they are a formal or informal organism in which the most respected residents of a city jointly create, develop and implement the city's brand, bearing collective responsibility for the decisions made [11]. Thus, considering the city as a territorial system with a center of concentration of interests of not only the levels of government (national, regional, municipal), but also all subjects of the territory, it is quite obvious to assume the possibility of using an adequate mechanism for implementing the concept of stakeholder management to ensure their balance in the development and implementation of strategic decisions on socio-economic development of the territory.

It should be noted that consultations with stakeholders in the process of strategic decision-making at the local level in Ukraine are currently not regulated by law, although the need for widespread implementation of the consultation tool is justified by the transformation of the administrative-territorial structure in Ukraine and the formation of a capable basic-level local government institution. In the vast majority of European countries, there has been a tendency for many years to increase citizen participation in decision-making at both the central and local levels, and to consult with stakeholders in the process of forming a vision (concept) of a decision. Therefore, it is advisable to carry out relevant work to develop common approaches in this regard.

Many practical tools of stakeholder analysis are definitely useful for the city. These are popular models for systematizing stakeholders: the Mendelsohn matrix, the Aigle, Mitchell and Wood model, Freeman's stakeholder analysis, as well as Carroll's pyramid of responsibility, the Molteni corporate social responsibility management algorithm, etc. These tools are quite easy to use, and standardized procedures can be performed using simple software products with proper visualization of the analysis results, which is accessible to a wide range of participants.

The analysis of the needs of the territory, taking into account the strategic context, should not only identify the challenges of the external environment in order to formulate adequate responses to them, but also identify key «points» for applying efforts to create an environment within which development is planned.

A rather effective analysis tool that allows to successfully solve the problem of city management based on a stakeholder approach in a dynamic institutional environment is

a game-theoretic approach to solving problems of collective choice. As is well known, the fundamental work in game theory [13]. A significant contribution to the development of this theory was also made by Nobel laureates in economics, especially J. Tirole, whose work on game theory took an honorable place among the best [14].

Nowadays, game theory is considered one of the most developed branches of modern mathematics, which is widely used in economics and strategic management. Its models allow taking into account the differential impact of policies and actions of its stakeholders on the state of the organization. Formalizing stakeholder behavior practices with the help of game-theoretic models allows taking into account the diversity and unpredictability of their relationships and helps standardize the process of making management decisions under conditions of uncertainty. There have been successful attempts to use the game-theoretic analysis of rational human behavior and decision-making in the management of socio-economic systems in Ukraine [15]. The theoretical game model used by author to analyze the interaction between local authorities and the local economic elite in modern Ukraine for the first time allowed to identify the reasons for such coordinated behavior of the parties, which is economically inefficient.

The current opportunities for domestic cities to choose a positioning concept should be based on international practices. An analysis of city ratings can be quite helpful in this regard. Rankings have become one of the most popular forms of comparative research on cities and are already used in city branding strategies. However, as leading rankings analysts warn, when interpreting or using rankings, one should keep in mind their limitations. It is about the specific goals and audiences of the ratings. They emerged in response to a request from international corporations and highly paid management, so they do not always take into account the needs of the majority of city residents. There are methodological problems associated with the calculation of integrated indicators – indicators and indices that, at best, are able to summarize and record a certain state, but they cannot explain it. Another concern is that the rankings encourage cities to compete for resources. Places in the lists of «competitiveness», «quality of life», or «creativity» are an element of city branding. Such a policy is part of entrepreneurial strategies for urban development, and its prioritization, according to analysts, can lead to increased inequalities and unresolved social problems [16]. At the same time, the analysis of the characteristics that determine the positions of cities in various rankings allows to identify trends and focus on global trends in city branding, which can be very useful in shaping the brand of a domestic city.

It is well known that city research in the form of indices originated to help large corporations with the placement of capital, investments, and personnel in different countries and cities. The first ranking was published by UBS bank «Prices and Earnings Survey» in 1971 with information on the cost of doing business and the level of wages in different cities. This practice of calculating various indices was soon continued by consulting companies Mercer, PwC, KPMG, and The Economist magazine. Today, there are quite a few city rankings.

Experts generally divide city rankings and indices into three broad categories.

The first is general ratings of economic changes, «globalization» and competitiveness of cities, which are developed mainly by audit and consulting companies, as well as research centers and international organizations. Examples

of such rankings: MORI Global Power City Index, Global Urban Competitiveness Project, UN-Habitat City Prosperity Index, McKinsey Urban World Top Hot Spots.

The second group includes rankings based on the «quality of life» indicator, which is filled with different content and therefore is compiled using different categories and indicators:

– The Economist Intelligence Unit Livability – stability, healthcare, culture and environment, education, infrastructure;

– Mercer Consulting Human Resources – political stability, crime, law enforcement, banking services, censorship, restrictions on personal freedoms, air pollution, transportation, leisure, environment, etc.;

– Monocle Magazine Quality of Living Index – quality of transportation, quality of housing, education and healthcare, etc.

The third group includes «specialized» rankings compiled for certain categories of cities, such as «green» cities, «smart» cities, «knowledge-based economy», «human capital», etc. Their creation is associated with various consulting firms that are interested in providing cities with services in «advancing» in these rankings. Examples: Buck Consultants Tech Cities Index, Wall Street Journal Innovative City of the Year, Mercer Consulting Eco-City Index, Forbes World's Smartest Cities.

One of the most recently published city rankings, the Innovation Cities™ Index, conducted by 2THINKNOW, is based on 162 innovation indicators for each of the 500 cities surveyed. Among the indicators that determine the measure of innovation, the key ones are: digital technologies, livability, smart economic development, mobility (transport), tourism and trade, place branding, startups, and sustainability. As a result of the rating for 2022–2023, the top 100 cities were identified. The top positions in the ranking were taken by: Tokyo, London, New York, Paris, Singapore, Los Angeles, Boston, Seoul, San Francisco, and Houston [17].

The use of such indices as best practices is quite complex, but this does not exclude the possibility of analyzing trends, phenomena and processes that deserve the priority attention of brand developers. Of course, more in-depth research is needed to clarify cause-and-effect relationships and develop urban policies. Ratings and indices cannot replace them. However, given, for example, the urgent need to increase the innovativeness of the city, let's believe it is worth paying attention to the components of assessing the level of innovation, among which digital technologies stand out. Thus, in a world transformed by digital technologies, the process of building smart cities has become increasingly important. Smart networks, smart administration, smart urban transport, water supply and waste management, and security can help cities achieve a balanced development. Convenience for living, smart economic development, mobility due to the smooth operation of transport – these indicators of a city's innovation are also achieved by using smart technologies: to collect data on traffic jams, electricity or water consumption, as well as air quality, etc. Smart technologies offer a wide range of solutions for reformatting urban infrastructure with new approaches to energy supply, mobility development, and the overall city economy in order to reduce harmful emissions, ensure an appropriate level of energy efficiency, and decarbonize energy supply.

At the same time, despite the wide availability of various smart solutions on the market, their implementation in the pre-war period in Ukraine remained rather limited. This is evidenced by the results of a study conducted by the authoritative Razumkov Center in 2021 [18]. At the end of 2020, the Center's sociological service conducted a large-scale survey of local government representatives (holding senior positions) on the principles, prerequisites and feasibility of implementing smart infrastructure in Ukrainian cities, which determines their understanding of the development of such infrastructure in their city. The survey covered 130 Ukrainian cities with a population of 25 thousand or more. The results of this survey revealed the priorities and activities of local authorities in the use of smart technologies in Ukrainian cities, as well as the key motivations and obstacles to decision-making in the area of urban infrastructure digitalization. For the vast majority of respondents (88.7 %), these issues are a priority, and only 7.5 % of respondents assign a minor role to this issue [18].

However, in practice, the deployment of smart infrastructure by Ukrainian cities is slow, expensive, and extremely complex. In some cases, city authorities are trying to avoid making large investments in the development of such infrastructure, arguing that such investments are risky and have low profitability. There is also a lack of adequate legislative and institutional support for the development and implementation of digital technologies at both the city and national levels; there is a shortage of relevant specialists and a rather inactive process of engaging the population in the digitalization process [18].

Given that in recent years, the concept of Smart City has been increasingly embedded in urban planning plans of cities around the world, smart cities should become the «new normal» in postwar Ukraine as well. Therefore, it is desirable to involve all stakeholders in the process of building smart infrastructure so that the implementation of smart solutions is effective and focused on the needs of the population and reflects the innovative feature of the city's brand.

In general, the set of analytical methods and tools recommended by us can be effective in the process of branding domestic territories. It is worth noting that the formation of this complex was based on methodological approaches from various fields of knowledge: economics, management, marketing, and mathematics. The use of each of them is scientifically substantiated to a greater or lesser extent, as evidenced by the publications of reputable scientists. The complementarity of the combination of these methods and tools will, on the one hand, deepen the general theoretical understanding of this complex problem and allow it to be solved in interdisciplinary ways. On the other hand, while recognizing the importance of theoretical achievements in territory branding, it should be noted that they cannot directly and fully serve to develop practical solutions. It requires the hard work of a multidisciplinary expert and consulting community to ensure that branding not only meets the current needs of a certain range of interested consumers, but also expands the strategic context and determines the promising vector of post-war recovery and development of territories. All of this will help avoid methodological errors, facilitate critical analysis and use of best international practices, and orient to global trends.

4. Conclusions

1. Large-scale projects for the post-war reconstruction of the country are being developed and are being implemented now. They should include modern approaches to restoring territories based on the latest production and logistics technologies, sustainable development, and urban planning.

2. In the process of developing domestic cities, their brands, which will facilitate the availability of resources and factors of production, should be formed on a modern theoretical and methodological basis, taking into account the new reality.

3. The formation of a successful brand is preceded by the identification and assessment of the needs of citizens, as well as the influence of each of the parties interested in the development of the city. For this process, it is advisable to adapt the tools of stakeholder analysis, which has successfully proven itself in the strategic management of corporations and is actively expanding into the field of territory branding.

4. The analysis of the territory's needs, taking into account the strategic context, should not only identify the challenges of the external environment in order to formulate adequate responses to them, but also identify key «points» of application of efforts to create an environment within which development is planned.

5. A rather effective technique is the formalization of stakeholder behavioral practices with the help of theoretical game models, which allows taking into account the diversity and unpredictability of their relationships and helps to standardize the process of making management decisions under conditions of uncertainty.

6. The current opportunities for domestic cities to choose a positioning concept should be based on international practices. The analysis of city rankings can be quite helpful in this regard.

7. An analysis of the characteristics that determine the positions of cities in various rankings allows identifying trends and focusing on global branding trends, which can be very useful in shaping the brand of a domestic city.

8. City innovation rankings focus on the widespread use of digital technologies. Given that in recent years the concept of Smart City has been increasingly embedded in urban planning plans of cities around the world, smart cities should become the «new normal» in postwar Ukraine as well.

9. The complementarity of the combination of theoretical methods and tools from different fields of knowledge will deepen the general theoretical understanding of the complex problem and allow solving it in interdisciplinary ways.

10. The development of effective practical solutions will be facilitated by the involvement of a multidisciplinary expert and consulting community.

Conflict of interest

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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