Abstract

Tourism is an important factor in the development of the national economy. The share of tourism in the structure of Ukraine's GDP is 7.8%. Ukraine, having a considerable tourist potential for the formation of tourist flows, is ranked 85th among 139 countries of the world in terms of tourism attractiveness. According to the findings of the World Tourism Organization (UNWTO), the concentration of natural and recreational resources, objects of the world cultural and historical heritage can provide an annual increase in tourist flows to Ukraine by 4-6%.

Under the conditions of unstable external environment and unfavorable conditions of the tourism market, an actual scientific task is to develop the theoretical and applied basis for the formation of the national tourism system. Conceptually, this process must be consistent with the strategic understanding of the need to take into account the mental, institutional, cultural and informational influences on the economic interests of entities, which form a functional, sectoral, socio-economic, institutional and environmental subsystem of the national tourism system. This will make it possible to determine target priorities of such activity not only in accordance with the development of destinations, but also taking into account the possibility of obtaining socio-economic effects, in particular, synergistic, multiplicative and cumulative ones.

The goal of the study is to substantiate the essence of the national tourism system (NTS) based on the comparative analysis of the definitions of "tourism", "tourism system", "economic system", "national socio-economic system", which became a scientific foundation for determining the scientific basis of the national tourism system, its subjects and objects, conditions, goals, and results of formation. For the science development it is also important to obtain results on the structure and evaluation of the national tourism system effectiveness.

Keywords

- tourism, national tourism system, subject of the national tourism system, management

JEL Classification

- L83, P47

INTRODUCTION

The dynamism and scale of tourism development explain the fact that this type of economic activity, even taking into account unfavorable situation on the tourism market, is capable of preserving positive trends of development due to the multifunctional nature of economic activity, the high degree of autonomy and universality of all components of the tourism phenomenon as a socio-ecological and economic phenomenon. Its social, economic, environmental and political significance is universally recognized (Jafari, 2003; Ashley et al., 2007; Dodd et al., 2012; Mazaraki et al., 2013; Buckley et al., 2015; Kozmenko et al., 2015).

The multifunctional value of tourism is manifested in the fact that it is simultaneously a type of economic activity, leisure, consumption, cultural phenomenon and component of social development (Boyko, 2010, p. 16). In addition, tourism affects the ecological state of the environment determining the level of permissible ecological burden on
a particular tourist region (destination). Consequently, an important ideological keystone for understanding the socio-economic essence of tourism is its interdisciplinary nature, since tourism is characterized by specific functional and sectoral features of the production chain in relation to the creation of a tourist product that are related to the inter-industry nature of economic activity. This fact manifests itself in the fact that in tourism, the production and consumption of tourist products is a whole production process, which complicates the application of managerial technologies that are successfully used in other branches.

According to the analytical calculations of the World Tourism Organization, the twenty-first century will become an epoch of tourism, because even with a pessimistic forecast of fluctuations on the tourism market, by 2020, the number of tourist arrivals will amount to 1,6 billion people (Figure 1). In general, only from the beginning of the twenty-first century the volume of international tourist arrivals grew by 1,8 times and that of revenues – by 2,5 times. It is worth emphasizing the predominance of the rate of growth in revenues over the growth rate of tourists.

In Spain, France, Germany, the United States and United Kingdom, where a clear vision, conditions and development principles were formed and implemented, a transparent and efficient mechanism for managing the national tourism system has been built ensuring their high positions in the world ranking of the competitiveness of economic systems.

In Ukraine, where tourism activity has been developing intensively only in the last ten or fifteen years, a constructive implementation of these and other key tasks in the current conditions of a turbulent external environment, a competitive struggle that intensifies both on the domestic and international tourism markets, will be complicated without the formation of a national tourism system. It should be noted that in the legislative field certain regulations were adopted regulating the development of tourism, but the process of the national tourism system formation is slow. This is explained by reorganization of the agencies of public administration, a latent change of priorities and the lack of public funding.

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1 World Economic Forum (2017), The Travel & Tourism Competitiveness Report 2017. Paving the way for a more sustainable and inclusive future. Retrieved from http://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf

2 On approval of the Tourism Development and Resorts Development Strategy for the period up to 2026: Order of the Cabinet of Ministers of Ukraine March 16, 2017, 168-p. Retrieved from http://zakon3.rada.gov.ua/laws/show/168-2017-%D1%80)
Some programs have been adopted at the regional and local levels, in which one can observe a discrepancy between the state and regional interests in the process of the national tourism system formation. The lack of a scientifically grounded foundation for the formation of the national tourism system causes the exacerbation of the existing and the emergence of new imbalances in its development.

1. LITERATURE REVIEW

In the scientific environment there is an objectively formed understanding of the essence of tourism as a system. The scientific positions of such interpretation were laid down in the 1970s and 1980s of the twentieth century in the process of substantiation of the tourism system models (Kaspar, 1975; Leiper, 1979; Mill et al., 1985). In the process of society development scientific interpretations of tourism systems changed, that is, they became seen as more complex entities with cross-connections, which have a significant impact on society and are under its constant influence (Hall, 2005; Holden, 2006; Lazanski, et al., 2006; Butler et al., 2007).

The current research of the tourism system formation reveals interconnection between different spheres of tourism and studies of basic concepts such as demand, supply and transport in the relevant environment. The methodology underlying the systemic analysis of tourism has changed in accordance with the evolution of the system science (Bieger, 2004; Bieger et al., 2006, p. 41). The complexity and multidimensionality of tourism were determined in various studies and it is concluded that tourism should be considered as more voluminous than a particular branch, industry or sector (Bieger et al., 2006; Darbellay et al., 2012). The researchers have proven that “tourism can be seen as a scientific object with specific, distinct qualities that produces a specific complexity, different from other research topics” (Darbellay et al., 2012, p. 443); “nonprofit organization development of tourism can fulfill goals and objectives more successfully if it is designed and managed in the context of the overall tourism system” (Gunn, 2002, p. 68).

The emphasis is placed on the fact that contemporary economic science increasingly considers tourism as a complex socio-economic system, in which the inter-sectoral complex called a tourism industry is one of the constituent components (Saprunova, 1997). Markova (2011, p. 107) is of the view that it is not sufficient to consider tourism only as an industry, since such approach does not define tourism in terms of all its social tasks and functions, therefore, there is a need to consider tourism not as an industry, but as groups of related industries. Dredge (2016, p. 23) stresses that “it has argued for the need to appreciate the changing nature of tourism from an industrial system to a post-industrial one, and by corollary, the need to move beyond thinking of tourism as little more than an industry”.

Admitting all the above arguments, we will present the position of Jelenicz and Simoni (2013, p. 31), who note that “therefore, tourism should be regarded as a field with complex dynamic, geographic, temporal and unitary structure and functionality, and not reduced to a simple economic sector (tourism industry) producing revenue”.

Therefore, summarizing the above-mentioned scientific positions, we consider it necessary to study the tourism system at the state level as a national tourism system, which is a component of the national economy, a significant determinant of political and social influence of the country on international relations, a catalyst for various socio-economic processes in society.

Therefore, in spite of the understanding of tourism as a systemic formation at the macroeconomic level, in the scientific literature the substantiation of the essence of the national tourism system is fragmented. In this context, we should note that there is a number of studies on the global tourism system (Cornelissen, 2005), the socio-economic system of international tourism (Aleksandrova, 2002) and local tourism systems (Macchiavelli, 2001; Shaidarov, 2006; Mazhar, 2008; Sarancha et al., 2011; Subbotina et al., 2011).

Within the framework of geographic sciences, the study by Aleksandrova (2002) develops a
scientific understanding of international tourism as a socio-economic system of a market type, which, unlike a managed territorial recreational system, is self-organized functioning according to the mechanism of supply and demand, their constant interaction, mutual adaptation and coordination. Distinguishing four hierarchical levels of territorial tourism and recreational systems (global, national, regional, and local) Mazhar (2008) notes that national tourism and recreation systems (NTRCs) are key in the hierarchical subordination of such systems. On the one hand, in their interaction they determine the nature and the level of development of the world tourism and recreational system and, on the other hand, they directly regulate the activity of the relevant sphere at the regional level.

One of the meaningful interpretations of the essence of the national tourism economic system is its vision as a set of interrelated branches and industries of the national economy, the only task of which is the activity aimed at meeting the needs of people in different types of recreation and traveling in their free time with the rational use of all available tourist resources (Markova, 2011, p. 108). Conceptually agreeing with the above-mentioned thought, we still believe that it is necessary to interpret the essence of the national tourism system more broadly without focusing only on its economic aspects.

In addition, scientific developments do not form a complex managerial approach that makes it possible to take into account structural heterogeneity, dynamism, the influence of transformational factors (post-industrialism, globalization, "knowledge society", integration processes, development of information and communication technologies, shifting of interests and values towards intangible assets) on the national tourism system. Therefore, there is an objective need in comprehensive fundamental research of the national tourism system.

This makes relevant the solution to develop a concept of the national tourism system, which will most effectively reflect this process in the context of its flexibility and balance in order to increase its socio-economic significance as a subsystem of the national economy.

2. RESEARCH FINDINGS

2.1. Problem field of the essence of the tourism system

The lack of a comprehensive vision of Ukraine's national tourism system (NTS) is evidenced by the presence of the following controversial provisions in the science of tourism:

- a panorama of economic research shows a significant variety of taxonomic approaches that identify the essence of the tourism system understanding;
- scientific field, researchers identify the tourism system as tourism;
- in economic terms the methods for determining the synergetic, multiplicative and cumulative effects for assessing the contribution of the national tourism system to the national economy are not consistent;
- within the framework of institutional provisions, there is no clear comprehensive development vector, legislative and regulatory acts are rather disparate and inconsistent with each other, the basic principles of the mechanism of shaping a multi-objective control system are implemented rather slowly;
- in the socio-ecological and economic field there is no developed mechanism for managing the national tourism system taking into account the social, economic and environmental parameters, which aggravates the problems of coexistence of its main stakeholders (state, business, public organizations, tourists) leading to imbalances and asymmetries of the potential use;
- in the context of promotion, all possible tools and means for popularizing the national tourism, forming a positive image of the country by means of tourism are not used;
- in the context of technology there is no consensus on the widespread introduction of modern innovative technologies into this system;
• in terms of innovation, in the national tourism system the so-called “informal component” (provision of tourist services organized in the form of freelance, tourism of civic organizations, amateur tourism) is considered fragmentarily in contrast to the “formal” (state and non-state), as well as the processes of “joint consumption” (especially with regard to accommodation facilities).

The inability of the Ukrainian national tourism system to meet new challenges will lead to the weakening of the country’s economic and geopolitical positions and its transition to the “catching up development” model.

A theoretical basis and prerequisite for the study of the national tourism system is the analysis of scientific views on the evolution of tourism, the deepening of the formed scientific knowledge about tourism and identification of immanent features and peculiarities of the subjects and objects of tourism activity. It should be noted that the development of tourism and the evolution of scientific views on this socio-ecological and economic phenomenon are characterized by the lack of identical views on the periodization of development of tourism and tourism science in the scientific society.

Therefore, based on the study by Bosovska (2015), who systematizes the evolution of tourism development according to Freyer (2001) and Tkachenko (2009), it is proposed to distinguish the following phases: early-historical (in connection with the biggest time interval of its implementation it is necessary to further distinguish the periods of the Ancient World, The Middle Ages and the New World); initial; growth; mass tourism; sustainable innovative development with the phase of integration tourism development, which has its own socio-economic background and is connected with the global crisis of the industrial society and the transition to internationalization, globalization and business expansion, establishment of effective economic interactions, formation of strategic partnerships, development of innovative forms and mechanisms for implementation of entrepreneurial activity on the basis of integration.

Such transformational conditions of the present period in the external and internal environment of tourism determine its changes, the acquisition of new features, mechanisms and results of functioning. Accordingly, there is a growing need to consider this phenomenon thoroughly.

2.2. A comparative analysis of the concepts of tourism and tourism system

A comparative analysis of the concepts of tourism and tourist system has shown the need for their differentiation. Summarizing the work of researchers in this area, one can distinguish tourism as a process (UNWTO, Melnychenko, 2010), a system (Leiper, 1979; Gunn, 2002; Tkachenko, 2009; Sölter, 2000), type of activity and branch of economy. Moreover, in many studies it is proposed to consider tourism from different angles and as a global economic and socio-cultural phenomenon.

Using one of the most recognized visions of tourism, namely: “tourism refers to the activity of visitors” (UNWTO, 2010, p. 98), it can be argued that this confirms its understanding as a process.

In the same context we will outline the thoughts of Cherevichko (2015, p. 11), who states that the structure of tourism as a system is an elementary scheme, therefore, one of the structural elements of the system is the process of tourism, or “tourism as reflecting the fulfillment of the corresponding function – formation of tourist behavior and accumulation of tourist experience; therefore, “tourism as such” within the framework of the tourism system is a spatial action carried out under the influence of “triggers” (motives, needs) leading to the accumulation of “personified” tourist experience.

Melnychenko (2010, p. 3), proceeding from the vision of tourism as a process, draws attention to the fact that such approach does not pay attention to the following characteristics of tourism: 1) sphere of activity; 2) the ability to satisfy the long-term needs of individuals, to increase (confirm) their social status and change the way of their own life and environment; 3) the potential of economic development of business structures, towns, regions and the country as a whole.
We consider the position of Bil et al. (2009, p. 32) regarding the need to delineate the concepts of “tourism” and “tourism system” as sufficiently justified based on: 1) the lack of a single approach to understanding the essence of tourism as a collection of objects of different nature and of holistic formation; 2) the vision of the determining parameters of tourism reflecting only some of the formal features, but not giving the understanding of the qualitative features of processes and phenomena in the field of tourism generated by the dynamic and the changing needs of consumers; 3) the transition from the boundaries of scientific research of systemic properties characteristic of tourism, which are becoming increasingly evident in connection with the rapid development of this field and its formation as a complex socio-economic system that is dynamically developing; 4) the unjustified point of view that tourism, as the most “market” branch, actively develops due mainly to the personal funds of tourists, does not require planning, management and financing; 5) the need for an integrated, systematic solution to the problems of the tourism development (the solution of only certain issues when others remain unsolved leads to the deterioration of the situation, increases and aggravates problems and, as a consequence, reduces socio-economic effects); 6) the importance of a multi-level planning of tourism development.

There is a whole range of understandings of tourism, in particular: 1) in the narrow sense (process, system, type of activity, communicator, form of consumption of values), and the most widely used is a process approach or a vision of the physical movement of persons; 2) in the broader sense it is perceived as a global economic, ecological and socio-cultural phenomenon. Therefore, there is a need for scientific rethinking and semantic establishment of the “type of activity related to the production and consumption of a tourist product” and its identification in the national and international dimensions in order to determine the contribution to GDP, integral relationships, effects, implementation of strategic partnership of tourism actors.

We believe that the national tourism system reflects the complex and dynamic socio-ecological and economic nature of tourism and is a subsystem of the national economy and the global tourism system. At the present time, the complexity of the national tourism system is explained by the fact that “scientists gradually move from the simple systems to the use of more complex frameworks, theories and models to understand the diversity of riddles and problems facing people who interact in modern societies” (Ostrom, 2009, p. 408). Regarding the dynamic nature of national tourism system – “tourism has undergone a number of ‘turns’ in recent years that have changed the content, meaning and location of tourism consumption and production” (Russo et al., 2016).

The understanding of tourism at the macroeconomic level within the framework of the national tourism system also relates to the fact that it can be considered as part of the global economic system, within which it is possible to identify relevant actors, spheres, mechanisms of operation and regulatory instruments (Sardak, 2014, p. 11), since the interpretation of the notion of “economic system” is multivariate and the latest neological constructs are the result of symbiosis not only of economic and managerial but also of sociological approaches that reflect the interdisciplinary specifics of global studies (Sardaks, 2014, p. 11). Therefore, the vision of a national tourism system will help understand its complexity, the totality of interconnected endo- and exogenous processes, dynamic and rapid changes, channeling them and, if necessary, developing preventive measures.

2.3. Distinguishing economic systems of the national level in Ukraine

Another argument concerning the necessity of forming a concept of the national tourism system of Ukraine is that in the scientific environment a vision of various socio-economic entities within the framework of the national systems is formed. In this context, it is possible to distinguish the scientific research of the recent years (since 2006), the objects of which are: the national economic, financial, innovative, agricultural (food), transportation, recreational innovation systems, the national systems of education and health (Table 1).

The research on the national tourism system is a logical and consistent component of the study of the national economy. Its identification will make it possible to determine the relationships between the components, to substantiate the mechanism of
2.4. Scientific basis of the national tourism system

We believe that the basic foundations for the formation of the national tourism system are:

- tourism;
- a system as a set of interconnected elements, which form a unified whole, interact with the environment and have a common goal;
- a socio-ecological and economic system;
- the national economy.

That is why the notion of “the national tourism system” should be reflected not only by economic components, but also by social ones. This will make it possible to show:

- the complex socio-ecological and economic character of tourist activities;
- the system’s environment;
- the place in the socio-economic structure of the state and the world;
- the internal and external interconnections between subsystems and other systems;
- the interests of society;
- the global social functions;
- the cultural and historical heritage, the national mentality.

Summarizing the above, we propose to treat the national tourism system as a complex, whole, integrated entity, an integral part of the national economic system, which is formed from the subjects of tourism (production of tourist products) and other (related) types of economic activity, consumers of tourist products, markets, public and regulatory institutions that have a direct and indirect influence on the production, exchange, distribution, sale and consumption of the national tourism product.

The main goal of the concept of formation and development of the national tourism system as a set of views that determines its main parameters and results, its object and subject (Figure 2), is the achievement of scientifically based criteria for the high level of the national tourist product, which is ensured both by market mechanisms and the levers of public regulation of the economy at the macro-, meso- and microeconomic levels through the implementation of an appropriate economic policy.

According to the given definition we believe that:

- the subject of the national tourism system is a tourist (actual and potential), the needs of whom should be satisfied by the functioning of its subsystems;

| The name of the national system                  | Researcher, year           |
|------------------------------------------------|----------------------------|
| The national economic system                    | Danylyshyn (2008), Levkovska (2011) |
| The national financial system                   | Oparin (2006), Stukalo (2009), Nesterenko (2011) |
| The national currency system                     | Olynyk (2016)              |
| The national innovation system                   | Amosha (2015), Gurova (2015), Demchishak (2016), Mazurenko (2013), Perebeynos (2012), Fedulova (2007), Yukhnovsky (2011) |
| The national agricultural (food) system          | Aleynikova (2010), Lytvyn (2012), Sychevsky (2013) |
| The national health system                       | Lynnyk (2012), Lytvynenko (2015), Yavorska (2016) |
| The national legal system                        | Maik (2012), Rusenko (2014), Savenko (2016) |
| The national educational system                  | Dombrovskaya (2015), Kyrychenko (2015) |
| The national transportation system               | Ilchenko (2015)            |
| The national recreational innovation system      | Grishova, Odrekhivsky, and Safonov (2016) |

Table 1. Identification of the studies of the national socio-economic systems in Ukraine

Source: developed by the authors.
• NTS operates according to the market principles and the mechanism of demand and supply;

• NTS is an open, integrated and dynamic system characterized by socio-ecological, economic, political, international and technological parameters;

• NTS consolidates a wide range of economic activities, regulatory institutions and markets;

• the unique competitive advantages that are inherent to the NTS as a modern integrated system should be presented in nine blocks: financial, managerial, resource (operational), marketing (market), informational, scientific, technological, environmental, social and infrastructural;

• the product of the national tourism system functioning is a national tourism product;

• the functioning of this system results in a multi-faceted socio-economic effect.
2.5. The structure and features of the national tourism system

Summarizing the study of the structures of the national tourism economic system (Markova, 2011), the tourism system (Kaspar, 1975; Gerasymenko, 2013; Vysocan, 2014), the tourism industry (Lyubitseva, 2002), the structure of the national tourism system can be conditionally presented (Figure 3). The national tourism system is made of the following subsystems:

- functional-sectoral subsystem, which includes activities related to the services and infrastructure performing the basic economic functions;
- socio-economic subsystem, which accumulates a socio-economic, financial and investment potential;
- institutional subsystem represented by state authorities, public organizations and other institutions that form the legal framework for the functioning of the national tourism system;
- spatial subsystem, which is a projection of the above-mentioned subsystems at the destinations;
- information and communication subsystem, which performs coordinating functions within the framework of the NTS for the provision, accumulation and transfer of information and communication flows.

The subject of the national tourism system is a tourist, whose needs should be satisfied by its functioning.

That is, at the “entrance” to this system there are the needs of tourists satisfied by the consumption of the national tourist product, and at the exit – the double result: 1) satisfaction of tourist demand; and 2) formation of socio-economic results of the NTS functioning.

According to the generally recognized properties of the systems (openness, dynamism, emergence, nonadditivity, etc.), the national tourism system is:

- an integral part of the national socio-economic environment in which other socio-economic systems function, interact and get liquidated;
- present in the structure of both the national and the world (global) economies, it is a link between the local and the global tourism systems; hence – it serves as a communication channel capable of transforming socio-economic, political, cultural, technological and other impacts (Figure 4);
- the object of influence of political, economic, technological, cultural, ideological, mental, psychological, historical, geographical and other factors; at the same time it can counteract or mitigate external impacts;
- functioning in space and time and, respectively, is characterized by spatial and time parameters;
- the holder of clusters of influence, which is the source for changing the balance of the system in rather unexpected places and situations;
- the source of certain processes, in particular: metabolism (transformation of input flows at weekends); reproduction; evolution; harmonization of the internal space; replication (generation of similar systems).

When determining the essence of the national tourism system it is important to identify its boundaries, which can be presented in the following forms: 1) economic and legal – determined by the state policy on the regulation of socio-economic processes; 2) territorial boundaries, which concern the allocation of resources and subjects that form the national tourism product as well as the place of consumers residence. Therefore, one may state that the territorial boundaries of the national tourism system coincide with the state borders of the country, but their spatial and socio-cultural influence is not limited to them, it extends to the countries which initiate the flows of foreign tourists. However, considered globally (even on the scale of the entire universe), “in terms of tourism and recreation the entire Earth can be considered as a global tourist and recreational space” (Kruzhalin, 2011).
The internal structuring of the NTS space is ensured by integrational relations and takes place within the framework of creating a balance of expectations between the needs of consumers of tourist services and the strategic capabilities of the NTS constituents (actors) taking into account the system of constraints. The development of relationships takes place both in an evolutionary and a revolutionary way, which determines its cyclicality and causes the emergence of a certain spiral of development – its vector.
The development of integrational interactions within the framework of the national tourism system is in the dynamic transitions between the states of individual actors relative to one another and taking into account the condition of the environment. Accordingly, it is increasingly important to reflect a formalized model of integrational interaction of the NTS components taking into account the principles of the systemic approach and the development of economic objects (reflection of the dynamics of motion in time). Using the researches by Dannikov (2004, p. 95-96) and Pylypenko (2007) as a basis the structuring of integrational development within the framework of the NTS \( \{ \text{IDNTS} \} \) of the set of actors, \( \{ A \} \) for a certain period \( t \in [1, T] \) will be as follows:

\[
\text{IDNTS}(t) = \begin{cases} 
A(t), R(A(t)), SI(A(t)), \\
CR(t), RP(A(t)), F(PR(t)), \\
P(A(t)), K(A(t)) 
\end{cases}, (1)
\]

where \( \{ A(t) \} \) is a set of constituents (actors) that are concentrated in the integrational structure of the NTS at a certain point in time; \( \{ R(A(t)) \} \) – the restriction of a particular participant at a certain time \( t \); \( \{ SI(A(t)) \} \) – the rules and principles (strategic imperatives) of each participant at a certain time, which determine his condition. This set \( \{ SI \} \) reflects the state of participants in relation to others: the activity of the actor in the basic \( \{ SI_1 \} \) or complementary \( \{ SI_2 \} \) composition of actors; involvement in the virtual interaction \( \{ SI_3 \} \); abstinence from interaction \( \{ SI_4 \} \); in the process of getting involved \( \{ SI_5 \} \) or withdrawing from \( \{ SI_6 \} \) the interaction; \( \{ CR(t) \} \) – concepts and rules for the implementation of the joint activities relevant at the given time \( t \). They include: rules and procedures for the entry of new participants \( \{ CR_1 \} \); rules for choosing the participants for future integration \( \{ CR_2 \} \); rules for the organization of management system of joint activities \( \{ CR_3 \} \); rules of the distribution of relations \( \{ CR_4 \} \); rules for the formation of management schemes, methods and procedures \( \{ CR_5 \} \); parameters for supporting the concluded agreements \( \{ CR_6 \} \); scenarios for the development of certain events \( \{ CR_7 \} \); reaction to the flow of circumstances \( \{ CR_8 \} \); rules and scenarios for attracting resources \( \{ CR_9 \} \); consolidated development strategies \( \{ CR_{10} \} \); principles of interaction to implement the consolidated strategy \( \{ CR_{11} \} \); \( \{ RP(A(t)) \} \) – reflection of the participant interaction parameters for a certain period; \( \{ F(PR(t), A(t)) \} \) – characterizes the distribution of functions performed by the NTS and the roles of the involved participants. This set reflects the projection of actions required for the number of participants \( f: F \rightarrow A \); \( \{ P(A(t)) \} \), \( \{ K(A(t)) \} \) – reflects the resource potential and the available knowledge of each actor.

The aggregate \( \{ RP(A(t)) \} \) is determined by the structure of relations based on the balance of interests on the basis of the correlation of opportunities \( (O) \), competencies \( (C) \) and demands \( (D) \) of actors, the restrictions on their activity \( (R) \) and rewards for the refusal from opportunistic behavior \( (B) \) through optimization of the distribution \( (P) \) of power and freedom according to the following subordination:
In this case, the development is associated with the composition of actors, their characteristics, functions and roles. The changes in the composition of the NTS actors leads to transformations of the entire structure, and therefore, to the structure’s development.

2.6. The effectiveness of functioning and development of the national tourism system of Ukraine

The effectiveness of the national tourism system manifests itself in the formation of GDP, foreign exchange, employment, image, geopolitical relations, investment attraction, etc. (Zapalska et al., 2012; Carrillo-Hidalgo et al., 2012; Kozmenko et al., 2015; Sardak et al., 2016). An important feature of the NTS is its synergistic nature (Ashley et al., 2007), which implies an increase in the efficiency of business as a result of integration of business structures, especially in the hotel, restaurant and air transport business (franchising networks, strategic alliances, long-term contracts), which contributes to the lowering costs, increasing investments and innovative activities. Manifestations of the NTS synergistic effect are the aggregate results of an effective combination of factors that manifest themselves in the following planes (sectors):

- economic (growth in the number of tourists, income from the services provided and reduction of costs by optimally using the factors of reproduction, growth of investment income);
- social (activation of tourism activity, improvement in employment, health improvement, education of the population, financing of tourist projects by stakeholders, crowdfunding);
- ecological (introduction of ecological models of behavior, the use of environmental friendly energy, protection and improvement of the environment, expansion of ecological territories and the scale of ecological tourism);
- technological (creation and improvement of the means of transportation, introduction of innovative technologies).

The national tourism system has a multiplicative effect (Fletcher, 1989; Frechtling, 2010; Lange, 2011; Wall et al., 2006; Boyko, 2016). Wall and Mathieson (2006) define the multiplier as “the ratio of direct, indirect and induced changes in an economy to the direct initial change itself” (p. 110), and, accordingly, claim that “the multiplier measures three dimensions: the effects of direct, indi-
Figure 6. Configuration of the NTS functioning and development
rect and induced tourism spending” (p. 110). That is, it stimulates the relevant business processes and the demand for the related products.

The studies of the World Tourism Organization (UNWTO, 2017) “Travel & Tourism Economic Impact 2017” based on the Tourism Satellite Account methodology describe the economic contribution of the “Travel and Tourism” sector taking into account the direct, indirect and induced contribution of tourism to the country’s GDP. In Ukraine, during the last seven years the indirect and induced results of functioning of the national tourism system in Ukraine fluctuate within 72.7-74.1% and the direct ones – 25.9-27.3%, respectively (Figure 5).

Having determined the correlation between the direct and other consequences of the NTS for GDP, one can state that in Ukraine each monetary unit received in tourism contributes to the revenues in other sectors in the amount of 2.7-2.9 monetary units. Therefore, given the multiplier effect, the national tourism system is capable of intensifying the positive changes in other systems of the national economy.

Based on the definitions of the economic nature of direct and indirect effects of tourism, one can state that they are closely interconnected and determine the cumulative effect (Boyko, 2016, p. 28). The cumulative effect of the national tourism system functioning is achieved by gradual accumulation and concentration of factors and their subsequent “explosive” action making it possible to take into account the flows of consumption of goods and services, cross-industry and investment flows in assessing the influence of exogenous disturbances on the development of industries” (Tyshchuk, 2012, p. 24). The cumulative effect can also be considered not only from the economic point of view, but also from the socio-cultural and geopolitical point of view, that is, as a result of people health improvement, accumulation of cognitive information, gradual formation of a positive image by means of tourism. Configuration of the functioning and development of the national tourism system is shown in Figure 6.

Summarizing the above-mentioned studies it should be noted that consideration of the aggregated nature of the subsystems of the national tourism system will make it possible to assess its effectiveness in terms of developing the economic, social and environmental spheres of tourist destinations.

The identified scientific issues are determined by the fact that at the present stage it is important to solve the practical problems related to the integration of the Ukrainian economy into the European community, formation of a positive image of Ukraine, expansion of opportunities for attracting foreign and domestic tourists, optimal use of the available potential, effective influence of social and regulatory institutions, formation of new competitive advantages of the national tourist product, attraction of investments, etc. Therefore, they need to be solved from the standpoint of a comprehensive scientific vision of the national tourism system as a component of the national and global economies. This approach will make it possible to reveal critical points, growth factors, reserves and opportunities for the formation of a methodology for managing the national tourism system.

CONCLUSION

The disclosure of the national tourism system potential in Ukraine requires a scientific substantiation of the methodology within which it is possible to identify the relevant actors, areas and mechanisms of operation and regulatory instruments. At the same time, it is expedient to take into account the fact that the national tourism system is an integral part of the economic system based on inter-sectoral interaction of economic entities with regard to the production, sales and organization of tourist products consumption. The structure of the national tourism system is formed by the consumers of tourist products, resource potential, infrastructure, subjects of tourism activity and institutional structures. The national tourism system is heterogeneous and dynamic, and is characterized by vertical and horizontal ties.
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