FORMATION AND DISTRIBUTION OF INTERNATIONAL TOURISM FLOWS IN GEOGRAPHICAL SPACE

Properties of geographical space that are of key importance for international tourism, as length and discreteness, are analyzed in the article. Length makes tourists cover distances, whereas discreteness manifests itself in spatial heterogeneity. Tourism in conditions of homogeneous space is vain. That is, heterogeneity brings sense to travels as well as determines their direction. So, the effect of geographical space’s length and spatial heterogeneity on formation and distribution of tourism flows is assessed, international tourism’s geographical essence is disclosed also.

Apperception of geographical space in usual environment and its effect on tourist’s original motives are described. Following the bases of behaviorism, the tourism original motives, in particular those for migration, comfort, contrast and aesthetics are substantiated. The motive for migration is a kind of “pushing” tourists outside their usual environment. To stop all fears that may cause anxiety in destination, the latter should guarantee satisfaction of those human needs which A. Maslow refers to as basic needs. The necessity to satisfy these needs forms in tourists the motive for comfort. Closely located destinations in neighboring countries can be of little difference form usual environment. Driven by the motive for contrast, tourists aspire to visit places that totally differ from their usual environment, and contrast (are exotic to) it. Thus, the motive for contrast seemingly “pulls” the tourists up to certain (exotic) destinations.

Finally, following the considered spatial specificities of land surface and tourist-driving original motives, a conceptual model of formation and distribution of international tourism flows in geographical space is developed.

Key words: international tourism, geographical space, behaviorism, tourism motives, spatial model.

Problem statement. According to data available with the World Tourism Organization (UNWTO), nearly 1 milliard international tourist arrivals were documented in the world on at the change of the millenniums. The fact of the involvement of such a great number of people from many countries of the world is the evidence of international tourism’s significant effect on different spheres of social relations. At the same time, some aspects of international tourism are still insufficiently studied, in particular, little attention is drawn to how the international tourism flows are formed and distributed in geographical space.

The present work therefore aimed at the establishment of international tourism key-important properties of geographical space; substantiation of original motives that guide the tourists; ascertainment of the effect of geographical space’s length on distribution of tourism flows. The study resulted in the development of the conceptual model of international tourism flows’ formation and distribution in geographical space.

Both theoretical provisions and the model itself were the result of statistical analysis of international tourism flows in over 100 countries of the world throughout three marker years: 1999, 2004 and 2008. The choice of these years is explained by the fact that it was the period of more or less stable political and economic situation after disintegration of the USSR and up to the beginning of the world financial crisis which gave start to the world’s period of turbulence.

Problem statement. Properties of geographical space and its apperception in the context of tourism. Development of the model of international tourism flows’ formation and distribution within geographical space grounds on its (space) understanding as being part of the expanse that covers geographical environment. It should be in the first place established which properties of space are generally important for
tourism. With that, one should remember that space is inseparable from time, and these both form a spatial-temporal continuum with such universal properties as duration and irreversibility (with regard to time), length and simultaneous continuity, and discreteness (with regard to space).

Regarding tourism as a form of population’s migration, we should accentuate that such space’s properties as length and discreteness play here the most essential role. Length makes tourists cover distances, whereas discreteness manifests itself in spatial heterogeneity. Tourism in conditions of homogeneous space is vain, for wherever a tourist traveled, he would be surrounded by one and the same things. That is, heterogeneity brings sense to travels as well as determines their direction.

Certain relationship traced between such tourism-important characteristics of geographical space as length and heterogeneity can be expressed as follows: the bigger is the area of the territory, the more diverse will be its landscapes. This is explained by both occasional and deterministic factors. Significant expanse of the territory from the north to the south and availability of huge spaces lead to clear manifestation of latitudinal zonality and landscape diversity, while the same expanse along the latitude shows climatic variations from oceanic to continental. The dependence between availability of different reliefs and water areas, on the one side, and the area of the territory, on the other, has probabilistic nature. Similarly, the diversity of ethnic culture will be more often found in bigger countries rather than small.

Apperception of geographical space, that is, the space’s conscious perception is unexceptionally important for understanding of the philosophy of tourism, since tourist here stands out as key figure. Despite the objectivity of this category, geographical space in individual’s conscious world perception shall echo through the prism of his/her acquired life experience. For example, the child’s space is small and limited to the space of his/her room, home and garden; his/her experience and idea of space do not usually extend the limits of these territories. The child borrows the idea of space’s other elements predominantly from adults and parents. The child’s space is delimited into “his own” conventional, customary and habitual one where he/she is “at home”, and “alien” space which is opposite to the former and appears to be a strange, uncomfortable territory not organized for his/her living. The adult’s space is limited to his/her life experience acquired through different times of living. With age, such experience undergoes changes and accumulates. Individual’s ideas of “own” and “alien” spaces alters, as well as those of space expansion. The first may extend to the limits of settlement resided by an individual, while the second may exist right beyond the limits of “own” space [7].

*Original motives for tourism* To have new emotions and full psychological relaxation, an individual should “push the limits of stereotypes”. Undoubtedly, the one should for this purpose quit the “ordered life”, better still – quit the usual environment. This is how the motive for migration is formed. And, according to world scientific studies, in particular, sociological research oriented towards establishment of motives for tourism, it is the instinct of migration that is regarded to be in the first place. American social science refers motivation to travel to eternal motives of human’s behavior, to those that form the original nature [1].

At the same time, in situation when acquired stereotypes do not help and with no knowledge of what to expect and how to behave an individual would experience emotional stress. However, according to A. Ukhomsky’s fair notice, it will not be a rule that “meeting” unexpected and unusual things would call nothing else than negative emotions. An individual, if does not need to adapt to unusual places and situations or gain new stereotypes for the purpose of survival, will form positive expectations of meeting “surprises” of surrounding world [9]. Introduction of such positive mental set shall be easier when an individual understands that he/she would leave his/her “organized life” only for a short pe-
period of time, that is, the travel outside usual environment would be only a temporary trip and he/she would soon come back, which is peculiar for tourism.

To get all fears dispelled, the destinations should guarantee satisfaction of such people’s demands (which A. Maslow, a behaviorist, refers to as basic needs) as physiology, i.e., the needs for food and beverage, accommodation, etc, which in the case of tourism are provided by the service of hospitality; safety and security, which are the feeling and the awareness of the necessity to be protected from physical and psychological danger that the surrounding environment may cause.

According to A. Maslow’s hierarchy, the demand for satisfaction of basic needs forms in tourists a motive for comfort. Thus, the pyramid’s first level represents physiological comfort that presupposes a guaranteed accommodation and feeding. The motive for comfort in this context develops into economic factor which predetermines the capacity to realize a motive for migration. This motive plays a leading role in the formation of outbound tourism flows, and the “poverty” does not therefore assist to trips abroad. However, it is not sufficient to have money to be sure that the destination will provide for satisfaction of tourist’s basic physiological needs. To satisfy tourist’s needs, destination must have hotels, restaurants and other similar establishments. Thus, the motive for physiological comfort also serves as a factor of destination’s choice, since mass tourist is bound for the places with developed industry of hospitality.

Besides, the individual’s motive for physiological comfort lies in the sense of thermal comfort that depends on climatic specificities. In usual environment, the climate as a factor of physiological comfort may strengthen or weaken the motive for migration. For example, people living in Scandinavian countries where the weather throughout the year is predominantly uncomfortable, manifest overmotivation to travel abroad. At the same time, if an individual in his usual environment is compelled to live with frosts, heat of rainfalls, then he will be free in his choice of places with comfortable weather when traveling abroad. This is why the climate as a factor of physiological comfort will also serve as the element of attractiveness and influence upon distribution of tourism flows between destinations, that is, distribution in geographical space.

The motive for comfort on a second level of A. Maslow’s hierarchy of needs (safety and security) takes shape of psychological comfort. As was previously established, an individual manifests emotions when stereotypes do not work. Thus, to make these emotions positive, the destination should appear as causing no anxiety, much less fear. It means that no concern about his/her usual environment, the acquired stereotypes will be working and no re-channeling of excitement from one block of nerve centers to another would take place. Such situation will not contribute to recreation and there would be no trigger for emotions. This is why a tourist cares where to travel; he/she is driven by the motive of contrast which naturally complements such basic concept of tourism as usual environment. Tourists wish for visiting places that differ from their usual environment and contrast (are exotic to) it, that is, they apprehend destinations in the first place due to their exoticism.

Here we cannot but note that exoticism is predetermined by differences “from place to place”; and it is therefore a derivative from heterogeneity of geographical space: the higher is the landscape diversity, the more often exotic destinations will occur. And, as was established above, heterogeneity of geographical space depends on its length: the bigger is the area of the territory, the more diverse will be its landscapes. Moreover, one would definitely predict that with bigger distance from tourist’s usual environment, the number of exotic destinations will increase. In particular, it is only according to the zone sequence law when moving 1˚ (111 km) from the equator to the poles, the temperature will decrease nearly 0.5°C in the northern hemisphere, and 0.7°C – in the southern. At the same time, the thesis “as we go forward the higher is the probability to meet exoticism” does not certainly mean that closely located destinations will resemble usual environment, since the differences “from place to place” are also influenced by random factors.

Social differences existing between different countries also form the motive for contrast and determine the distribution of international tourism flows, in the first place, in cognitive tourism. Such differences tend to increase with distance, too, and their spatial expanse can be demonstrated by way of Hagerstrand’s statistical theory of movement. Following the aforesaid, one may assert that, with distance, the predominance in the social medium of one set of traditions and cultural values gradually gives way to another. Such situation is also affected by law of geographical determinism, which associates local inhabitants’ cultural, life and economic traditions with geographical conditions of living.

To conclude, we shall emphasize that with distance from usual environment, the motive of contrast will announce itself louder and louder. This can be explained by deterministic factors (law of zonality and climate changes from oceanic to continental along the latitude), and the increase, with distance, of likeness to meet forms of reliefs and water territory, cultural-historic specificities of local inhabitants, etc, that differ from individual’s usual environment.

The formation of international tourism flows, in particular, the choice of destination, irrespective of single tourism types, is also influenced by the motive for aesthetics. It lies in an individual’s perception of aesthetic value of landscapes within both usual environment and destination. That is, its influence is two-fold, since on the one hand, the ugliness of landscapes in usual environment may strengthen the motive for migration, which, by the way, may manifest itself in such demographic factor of tourism as urbanization. On the other hand, outside the limits of usual environment, the motive
for aesthetics influences the choice of destination, for tourists prefer those with aesthetic landscapes.

Aesthetic approaches that base on bio-evolutional perception of landscape configuration [8] refer to such human emotions as apprehensiveness for life, enjoyment through the absence of danger and capability of satisfaction physiological needs, etc. That is, these feelings are somewhat common with the above motive for comfort which presupposes that the tourist shall be guaranteed to be able to satisfy his/her needs which A. Maslow refers to as original: physiological – needs for food, water, accommodation, etc; and need for safety and security. The tourist is aware of these needs and demands their indispensible satisfaction, for example, through the purchase and consumption of the services of hospitality. The same needs are present within the motive for aesthetics, though in the pre-historic interpretation: they are forced out into the depth of the unconscious collective of the present-day individual, from where they emerge in the form of aesthetic feeling and are “satisfied” through the stay in places with “beautiful” landscapes.

**Length of geographical space and tourism flows.** Before this moment, we majorly considered such property of geographical space as heterogeneity, since the motive for contrast is associated with differences “from place to place”, and the motive for aesthetics – with landscape diversity. However, the formation and distribution of tourism flows in geographical space are also influenced by length, which is another space’s property. Length here is distinctive for the fact that the usual environment and destinations have certain locations and there is some distance between them. Besides, the length of the state border as a zone of contact between the countries is also important in international tourism.

The effect of length of geographical space upon tourism manifests itself in the first place in the necessity to cover distances. Tourists’ spatial movements are performed with the use of transport and are connected with money and time expenditures. This is why distance becomes the factor that influences on the formation of tourism flows to this or that destination, in particular, the nearer is the destination, the more often it may be visited. This is what the distribution of tourism flows in geographical space depends on, which can be clearly seen if study the structure of international tourism of this or that country. In fact, the distance for both inbound and outbound tourism flows is not a determining but a limiting factor. The share of arrivals and departures does not directly depend on the distance between the countries but usually does not exceed the value of exponential function where distance is the function argument; in other words, it stands within the limits of self-delineated curvilinear trapezoid (see Fig. 1).

![Fig. 1. Arrivals/Departures shares in the structure of international tourism flows, and distances between the countries of tourists’ origins and destinations](image)

In cases with tourism flows to neighboring countries the factor of distance does not work, and this is why the length of geographical space is manifested through the length of common land border. The travels to neighboring countries often cover areas nearby the state border and have the character of “diffusion”. This is why, under otherwise equal conditions, the scopes of tourists’ exchange between such countries are congruent with the length of common land border. This regularity is explained by the fact that tourism flows to neighbors may come within the Hagerstrand’s statistical theory of movements, according to which those inhabitants of home country who live closer to state border would have more often visit border regions of neighboring country [3].

Thus, such specific character of geographical space as its length effects on the formation and distribution of international tourism flows not only through distances between tourist’s countries of origin and destination but also through the length of common land border which in many cases determines the scopes of tourists’ exchange between neighboring countries.

**Model of formation and distribution of international tourism flows in geographical space.** Following the above-considered spatial characteristics of land surface and original tourists’ motives, we can now develop a conceptual model of formation and distribution of international tourism flows in geographical space (see Fig. 2). Taken as a basis, the fragment of planimetric map as a plain model of land surface does already manifest such geographical space’s characteristic as length. In particular, the countries on a map occupy certain area and position; there is a certain distance between the countries’ borders; and neighboring countries have a common border of certain length.

Such geographical space’s characteristic as hetero-
geneity, that is, differences “from place to place”, is presented by a qualitatively colorful background that grades from the white to an almost black. The gradual transition of colors from the north to the south demonstrates performance of deterministic factors, in particular, the zonality law, as well as the increase, with distance, of differences “from place to place”. At the same time, occasional factors, for example, spatial distribution of water areas or mountain massifs, form azonic areas.

Formation of tourism flows begins in the usual environment expressed on a model as daily spatial-temporal Hagerstrand’s prism. The apperception of usual environment is reduced to formation of stereotypes that significantly unload everyday life but deaden people’s emotions, and, through “grinding into one cell”, add to occurrence and accumulation of mental fatigue. To avoid this, one needs to re-channel the excitement from one block of nerve centers to another, which will take place only when the “worn out” stereotypes are not active. The best thing to do this is to quit everyday life, in particular, leave beyond the limits of usual environment. It is in these conditions that the motive for migration is being formed, which is inscribed on the model into spatial-temporal Hagerstrand’s prism (see Fig. 2).

![Fig. 2. Model of formation and distribution of international tourism flows in geographical space](image_url)

However, when stereotypes do not trigger, it usually leads to occurrence of negative emotions. Yet, if an individual knows that he/she leaves his/her usual environment for only a short period of time and will soon be back to live a “traditional life” again, said individual’s expectations of the unknown would then be almost certainly positive. To definitely stop all doubts that may cause anxiety in destination, the latter should guarantee satisfaction of those human needs which A. Maslow refers to as basic needs. The necessity to satisfy these needs forms in tourists the motive for comfort, covering in the Maslow’s hierarchy of needs the first two levels (see Fig. 2). Besides, this motive includes the third level – the bioclimatic comfort assessed by an individual through his own sense of warmth and accord with certain types of recreation. The types of climate that prevail in usual environment may strengthen or weaken the motive for migration, while these outside its limits influence on distribution of tourism flows in geographical space.

The motive for migration, passing through the pyramid of the motive for comfort, is materialized (concretized) into particular needs that can be satisfied in the course of the travel. On this stage, a decision as to the future travel is taken, for it seems not always possible to provide for due comfort beyond the usual environment, for example, because of the lack of money. If the consumption expenditures allow for travels abroad, the motive for comfort would effect on the choice of country: a tourist prefers those destinations where the industry of hospitality is well-developed; there is no need to worry about safety, and the climate is comfortable, inclusive of that for some types of recreation.

The motive for migration is a kind of “pushing” tourists outside their usual environment, and it is neighboring destinations that appear on tourists’ way first. The trips to neighboring countries are the most massive flows in international tourism which cover almost the half of those who travel abroad. Such situation is favored by the fact that these trips require little money and are fit for spending free time within a week. With regard to time, it is a short-run tourism within weekend and holidays. Tourists’ exchange between neighboring countries also often covers nearby state border areas and has the character of “diffusion”, while its scope depends on the length of common land border. This is why these trips are indicated on the model as wide short arrows that show the number of travelers in proportion to state border length (see Fig. 2). Migration is the prevailing mo-
itive in the trips to countries-neighbors, while the motives for contrast and aesthetics are of little weight.

It is a common thing that closely located destinations in neighboring countries can be of little difference form usual environment. This can be explained by the fact that it is with distance that heterogeneity of geographical space would increase. In other words, the closer is the trip, the fewer differences one will find “from place to place”. The model demonstrates it by a slight contrast between the white background of home country and light-gray color of neighboring countries of destination (see Fig. 2). It is in destinations that resemble usual environment that the acquired stereotypes may arouse. This is why people do care where to travel. Driven by the motive for contrast, tourists aspire to visit places that totally differ from their usual environment, and contrast (are exotic to) it. Thus, the motive for contrast seemingly “pulls” the tourists up to certain (exotic) destinations. As it was established above, the exoticism of destination will increase with distance, this being explained by deterministic factors – the zonality law and climate changes from oceanic to continental along the latitude, and the increase of probability of finding forms of relief and water areas, cultural-historic specificities of local inhabitants, etc, that would be significantly different from usual environment with distance.

Both formation and distribution of international tourism flows are either influenced by the motive for aesthetics. Ugly landscapes of usual environment may strengthen the motive for migration, while outside it destinations will be chosen on the grounds of aesthetics, since tourists prefer those with aesthetic landscapes. The same as exoticism increases with distance, one will more often find beautiful landscapes in more distant places, since bigger territory with higher diversity of landscapes is covered in this case.

It is through the motive for contrast, often overlapped by the motive for aesthetics that the tourism flows to remote destinations are formed (see Fig. 2). These flows are often distinctive for the “push and pull” scheme when the motive for migration pushes tourists, while the motives for contrast and aesthetics – pull them. Distance is among the major factors that effect on such flows, since the long way demands more money and time. This is why, with respect to time, it is a long-run tourism which requires, in the first place, the time of vacation. If the limits of consumption expenditures and free time are considered, the distance will transform into a factor that constrains the number of travelers with remoteness of destination. In particular, there can be any frequency of visits to foreign destination, but their number will not in most cases extend the value which exponentially decreases with distance to destination (see Fig. 1).

To conclude with, the suggested model mirrors the properties of geographical space which are essentially important for understanding tourism and disclosing its geographical essence. The tourists’ original motives in combination with the factor of distance explain how the tourism flows share in geographical space. And, finally, it can be mentioned that both the model and theoretical items conceptually belong to Behavioral Geography.

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