

Influence in the Behavioral Economy of the Tourist Industry

A I Mosalev¹

¹Financial University under the Government of the Russian Federation,
 Russian State University for the Humanities, 49 Leningradsky Prospekt, Moscow,
 Russia

E-mail: mosalyov.ai@gmail.com

Abstract. The article deals with the phenomenon of influence and some features of its manifestation. Theoretical views of representatives of behavioral Economics are presented. As a study of the phenomenon of influence in the tourism industry, two sides of relations are considered: tourists interacting with tourist companies; tourist companies interacting not only with tourists, but also with suppliers of tourist services. The paper presents the author's views on the manifestation of the tourism industry behavioral economy. The process of making a decision by a person to make a transaction under external conditions is described.

The article also describes the effects of influence that can manifest themselves in the tourism industry, as well as – there is a scheme of manifestation of influence in the field of tourism on the relationship of the parties to the transaction.

The decision-making process in the tourism industry is presented through irrationality of behavior. The article presents the manifestation of the theoretical decision-making process through a set of factors, such as purely socio-economic and behavioral (manifestation of the entropy factor).

1. Introduction

1.1. Tourism solutions

Decision-making in the tourism industry should always be considered from two sides: from the side of the one who provides the service, creates it, combines several services into one; from the side of the one who is ready to consume this service or a set of services.

In this case, the tourism industry provides for arbitration and the art of achieving parity of interests of all parties involved in the process of creation and consumption of services.

A travel company decides to develop a travel service based on a significant number of factors, such as [6]:

- economic: the issue of prices of partners of tourist destinations, discounts and subsidies, support programs by government agencies, professional associations, currency fluctuations, the cost of the national currency, etc.;

- Social and demographic: gender and age composition of target audiences, purchasing power of the population, level of wages, etc.;

- Political: the emotional attitude of society to a particular situation in the country and the world, the liberalization of tourist services for citizens of other States, etc.;

- Technical and technological: the use of new technologies or following the traditions that are interesting to the target audience of tourists.

If we consider consumers, as well as their motives, then we can distinguish the following:

- Changes in the level of wages and distribution of household income to compulsory expenses (utilities, food, clothing, credit services, etc.), as well as parts of the funds that can be deferred (savings for different purposes);
- change of social status and family status (change of job, position, industry, child or retirement, etc.);
- Exposure to public opinion (e.g. fashion for certain destinations or adherence to stereotypical viewpoints);
- Irrationality in behavior, as well as systematic in the manifestation of patterns;
- Human feelings and behavior in the real economy;
- Constant shifts in the perception of the concepts of price and value, depending on the external and internal circumstances that surround a person.

It is extremely important to note that consumer spending on recreation and entertainments are not mandatory. Stay in the system of needs pyramid Maslow does not apply to the base, the grassroots, and therefore no travelling, visiting places of recreation and entertainment, and you want to pay, employees, in principle, can live without causing harm.

Funds that are set aside by the consumer for a year or a number of years on vacation can be spent for completely different purposes. This idea complicates the process of building strong relations in the system of "Tourist - tourism Industry".

Also, based on the representation of the impact as such on the behavior of consumers of services, we can distinguish some assumptions.

In the neoclassical economy, the consumer considers the option where the benefits (in this case, we are not so much economic benefits as the aggregate, which includes the emotional component and prestige in the circle of human communication) exceed the costs. In this case such standards of rationality as egoistic, and the standard of the current purposes are allocated.

Also, a person, within the framework of the same theory of neoclassical economy, choosing the best of what is offered by the market, namely, chooses the service and the tourist destination, which is more able to meet its needs and expectations with its budget for recreation and entertainment.

Behavioral Economics for the tourism industry can be based on the following provisions:

1. The limitations of arbitration, i.e. the participants of group or cascade tours are limited in the ability to compensate the irrational actions of other tourists (if you look from the perspective of the consumer), as well as other companies (if we consider the tour operators who are more successful in terms of contractual tariffs, as well as resources involved in the creation of This situation has an impact on the cost of services in the market for a long time.

2. In the market of tourism industry it is always important to determine the areas that will be interesting for tourists to consume in the coming seasons, which will surprise, meet the expectations formed in the present time. Therefore, irrationality or partial rationality in the behavior of tourists and representatives of the tourism industry is present and will be present for obvious reasons. It is never possible to fully predict how the tourist will behave, how much he will be willing to spend, when the tourist will be ready to consume and how long the service, with what impressions he will return and how it will eventually affect the efficiency of tour operators, partners of tour operators and the industry as a whole.

The consumer of tourist services is not rational and it should be considered by the companies. Coming out of the comfort zone, a person revises his attitude not only to how the service is provided, but also meticulously refers to the costs that he incurred, slightly shifting the focus from the balance of price and value to his ideas and the conflict of goals, the effect of "consumer ignorance" is clearly manifested. Moreover, the first impressions that will be deposited with a potential tourist in the form of upcoming emotions will come into conflict with a purely economic factor, when each of the holiday options will be exposed to its own price, as well as the conditions for the provision of services.

Within the rationality of choice, one can agree with the axioms of comparability, reflexivity, unsaturation, convexity of indifference curves to the origin, not the intersection of indifference curves, but a rational economic agent can only partly approach the maximization of its benefits under a given budget constraint, because it is not a rational economic agent [7]:

- Does not have complete information about all the alternatives (in the tourism industry it is simply not possible to do, as each particular tour operator works with a variety of partners at different rates and forms of service at different times);
- Cannot be sure until the end of the fidelity of the compared alternatives for utility and coherently arrange them (as representatives of the tourist market in practice introduce proposals of three alternatives: above a given budget, at the level and below it, pointing out all the details of the services provided);
- Until the end to determine their preferences can not, they are constantly changing (the consumer may be satisfied with the destination, but do not like the hotel or service, beach, excursions, etc.). Preferences may change, as tourists plan a vacation at the time of vacation, which is slightly delayed in time, and therefore to the time of providing services to the client, his expectations from the journey may undergo transformation under the influence of both external and internal factors;
- The so-called "side factors" such as personal experience, opinion of other people and the result of interaction with them are never ignored.

1.2. Theoretical view

We will focus on two approaches of behavioral Economics for the study of the phenomenon of influence in the tourism industry.

Irrationality of tourists, irrationality of representatives of the tourist market has an impact and is influenced by preferences and expectations.

Preferences in the framework of irrational behavior introduced in the framework of prospect theory of D. Kahneman and A. Tversky [3]. They presented a very interesting point of view, pointing out that visual illusions mean little in everyday life, and therefore bias errors are essential in making a decision.

Indeed, if we consider this point of view from the perspective of a tourist, the unjustified expectations after traveling ephemeral dreams in front of him are perceived much more than pleasant emotions.

From the point of view of the tourism industry, which always works on the future need of the tourist and the upcoming demand, it is easier to incline to risk in case of losses (in this case, all the problems are grouped: operational, financial and organizational).

In both cases, the perception of (any) probability is always distorted.

In the work of Barsky and De Long [1] the phenomenon of influence is seen through the balance of the relationship between price and expectations, which in the end is decisive in determining the values.

In Daniel, Hirshleifer and Subrahmanyam [2] the point of view of self-confidence of the person and his belief in personal information is presented. The behavior in this case in the short term seems to be inertial, and in the long term has a "coup effect".

Considering the reasons for the irrational behavior of market participants in the tourism industry should be identified such as Mental Accounting, Endowment Effect, and Sunk Costs Effect [8].

In his work, R. H. Thaler [9] introduces the concept of subconscious accounting, which allows us to consider the effects of each decision on the simplification of the situation, rather than assessing the overall effect of all decisions. Thaler also drew attention to such influences related to issues of commitment, societal values, lack of self-control and limited rationality.

Thaler's merit is the development of the theory of controlled choice, which introduces the tools of "pushing" (nudge) by institutions.

Possession effect (endowment effect) by Kahneman, Daniel; Knetsch, Jack L.; Thaler, Richard H. [4] defines the phenomenon of influence through a person's assessment of the things he owns, not those he may possess. This theory prompts us to think about the need to introduce an operator to influence the emotion that the tourism industry can offer to survive a potential tourist now that would make a deal in the future.

The effect of the money spent (sunk costs effect) allows the irrationality of the behavior of representatives of the tourism industry in the hope to cover their costs and not to disrupt the season when, for example, the closure of any country due to any reasons or the cancellation of flight certificates from airlines operating direct flights to the destination.

2. Research tools tasks

The problems of behavioral Economics in the sphere of tourism do not have high-quality theoretical and practical developments. In this regard, we decided to use the approaches that are already available in the field of economic knowledge, such as behavioral Finance.

As a tool for the study of the phenomenon of influence, the views of financial management practitioners were considered. Also, based on the study of the behavior of tourists, some assumptions were made about the guiding conditions for the execution of transactions for services that are not priority.

3. Research theory

From the point of view of the authors and the practice of behavioral Economics, the following techniques can be identified, which can be the effects of influence on the tourism industry.

1. Anchoring – when a tourist or tour operator makes a decision, acts in accordance with some reference to the information that is received and which is available.

2. Availability – when the decision of a tourist to purchase a service or a tour operator when creating it is influenced by emotionally colored information received through personal channels, from the professional community, "word of mouth". In this case it is not necessary to speak about verification of information.

3. Representativeness (representativeness) – influence is shown through the estimate of the similarity of some of the events, the details of the proposals to the different classes of expectations and preferences in accordance with market opportunities.

Schematically, the manifestation of influence for the transaction in tourism can be expressed as follows (see **Ошибка! Источник ссылки не найден.**).

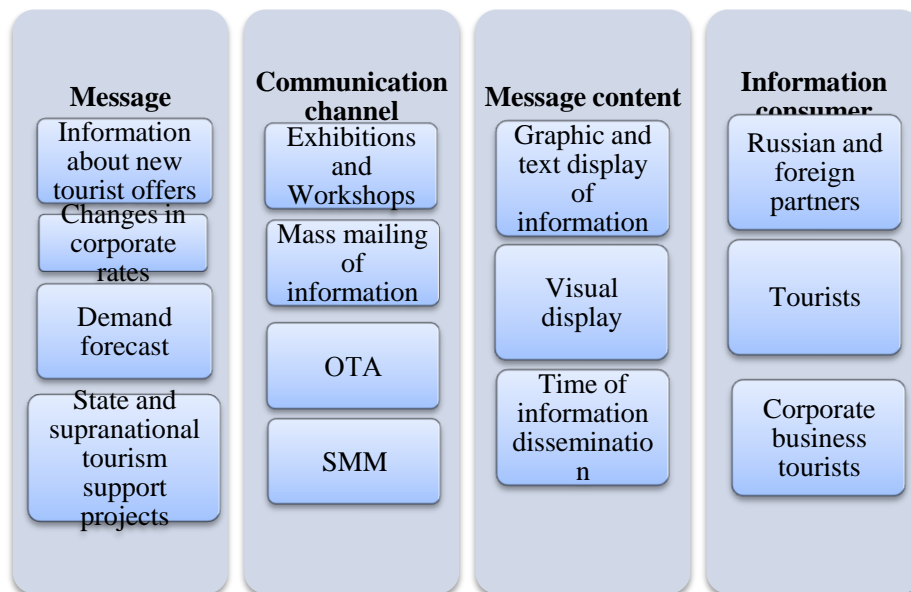


Figure 1. Influence in the transaction in the tourism industry.

The starting point of the discussion on the phenomenon of influence will be a set of factors that influence the decision-making of the two major cluster parties in tourism: tourist and tourist organization.

If you imagine the decision-making process of the tour operator on the creation of a particular direction in tourism (which is not put on the flow and is in the BCG matrix "Cash cow"), it may look like this:

1. The presence of factors that seem strategic and are not influenced by representatives of the tourism industry:

- Liberalization of tourist formalities of foreign countries;
- Strategic partnerships between States within the framework of economic and cultural cooperation;
- Diplomatic relations between States;
- the threat of terrorist danger, the spread of viral diseases, complex natural and man-made factors;

- Requirements of Federal and regional legislation in the field of tourism.
- 2. The presence of factors on which representatives of the tourism industry can partially or indirectly influence:
 - Management of tourist flows through programs and projects of non-governmental non-governmental organizations;
 - Systems of contacts with partners (accommodation facilities, transport companies, catering, tourist entertainment, etc.).
- 3. Factors that are managed by the travel company and through them have an impact on the market:
 - Commission programs for travel agencies;
 - discount and early booking programs to achieve the required level of depth of sales.
 Tourists are also influenced by the following system of factors:
 1. Not influenced:
 - Social situation related to work and household income;
 - Increase or decrease in the cost of tourist services.
 2. Partially influenced:
 - Leave planning;
 - Planning of the family budget and the possibility to postpone on vacation;
 - Changes in holiday preferences, the form of its organization and date.
 3. Factors that a tourist can influence:
 - Momentary benefit
 - Own impressions, emerging from General ideas, experiences of past experience, and the opinion of society.

Thus, we can simulate the process of influence effect in the tourism industry by means of multidimensional mathematical linear models.

As a modeling base, we focus on the CCAPM model by R. Lucas [5]. Lucas turned his attention in modeling to the role of consumer preferences, the freedom of choice and the influence of consumer power determined by the utility function.

The undoubted advantage of the model is the study of the phenomenon of influence in a continuous temporary consideration with an emphasis on random processes that are inherent in the tourism market.

Suppose that the tourist organization for the coming seasons provides for the distribution of opening costs and efforts in new directions (risk) and those that consistently generate income with optimal depth of sales in the market (risk-free).

The phenomenon of impact for future tourism seasons will occur budget constraints:

$$W_{n+1} = (W_n - C_n - I_t) * R_t + I_t * R_{t+1} \quad (1)$$

W_n – turnover of the travel company at the time;

C_n - consumption of tourism services by households;

I_t - contractual obligations of travel companies in group and cascade design;

R_{t+1} – expectations of the tourist company for the opening seasons of new directions of tourism and travel.

When establishing the function of the usefulness of tours for tourists should always take into account the phenomenon of the influence of the above factors and the magnitude of consumption, depending on all of the same factors.

Based on the theory of perspectives of Kahneman and A. Tversky [10] suppose that the amount of information that we can obtain about each factor of influence, its features, is not a cumulative value, i.e. accumulated in the practice of economic operations, but the volume that can be characterized as "complete" and meets at least the minimum conditions of acceptability and reliability.

Then, the amount of information that can be otherwise called entropy will be used as a measure to refer to the phenomenon of influence in the tourism industry.

In the tourism industry, we will take a case that is not stationary (due to the conditions faced by consumers of tourism services and by tourism firms themselves), but rather ambiguous and multivariate (facilitated by the impact of deferred demand). The time sequence of implementation of this case refers to the time of existence of a factor of influence on the behavior of agents.

Let the density of the distribution of influence is expressed as follows:

$$p(x; \theta), \tag{2}$$

where x – some component of the structure,

θ – the amount of information about the demand for new or repetitive tourism services that the researcher may have.

Then the multiplicity of the situations we write as follows:

$$Y = \{x | p(x; \theta)\} \tag{3}$$

Therefore, the amount of information about the impact in the tourism industry can be denoted by the formula of completeness of information, which will be written as follows:

$$Inf = \int_Y \left[\frac{\partial \ln p(x; \theta)}{\partial \theta} \right]^2 p(x; \theta) dx = E \left[\frac{\partial \ln p(x; \theta)}{\partial \theta} \right]^2 < \infty. \tag{4}$$

The entropy of the effect, which is not necessarily cumulative, can be expressed as follows

$$H = - \sum_{i=1}^n p_i \times E \left[\frac{\partial \ln p(x; \theta)}{\partial \theta} \right]^2 \tag{5}$$

Whereupon,

$$H = \sum_{i=1}^n p_i \times E \left[\frac{\partial \ln p(x; \theta)}{\partial \theta^2} \right] \tag{6}$$

It is worth noting that the influence in the perception of tourism is reflected by subjective factors, emerging under the influence of objective circumstances of socio-economic and political systems.

The assessment of any changes that accompany tourism services both in aggregate and in aggregate elements is expressed by the asymmetry of the perception of losses and their non-acceptance.

By itself, the asymmetry of perception of the same information by different subjects affects the power of leverage in the behavioral economy.

Thus, the perception of influence on the part of a tourist or travel company can be described by the following system of equations:

$$W(X_{n+1}) = \begin{cases} (I_t * R_{t+1} - I_t * R_t) + H & \text{if } X_{t+1} \geq 0 \\ \mu(I_t * R_{t+1} - I_t * R_t) + H & \text{if } X_{t+1} \leq 0 \end{cases} \tag{7}$$

4. Summary

The resulting expressions describing the influence itself, as well as the features that manifest themselves in the expression of the behavior of tourists and tourist firms, allow us to get closer to understanding how the behavioral economy finds itself in the tourism sector.

Certain provisions considered in the article require their verification. However, the process of collecting qualitative and quantitative data should be large-scale, spatial and produced in different periods of the wave cycles of the economy.

Nevertheless, there was an attempt to analyze how the phenomenon of influence in the tourism industry finds itself through the prism of the behavioral economy.

References

[1] Barsky R, De Long J B 1993 Why does the Stock Market Fluctuate? *Quarterly Journal of Economics* **108(2)** 291-311
 [2] Daniel K, Hirshleifer D, Subrahmanyam A 1998 Investors Psychology and Security Market Under- and Overreactions *The Journal of Finance* **LIII(6)** 1839-1885
 [3] Kahneman D, Tversky A 1979 Prospect Theory: An Analysis of Decision under Risk *Econometrica* **47(2)** 263-292
 [4] Kahneman D, Knetsch J L, Thaler R H 1990 Experimental Tests of the Endowment Effect and the Coase Theorem *The Journal of Political Economy* **98(6)** 1325-1348
 [5] Lucas R E 1978 Asset Prices in an Exchange Economy *Econometrica* **46(6)** 1429-1445
 [6] Mosalev A 2014 Study on the classification problems with uncertainty in innovative entrepreneurship *Actual Problems of Economics* **11(161)** 399-408
 [7] Mosalev A 2019 Marketing framework of the territory as a basis for the development of tourism strategy In: Solovev D (eds) SMART TECHNOLOGIES AND INNOVATIONS IN DESIGN

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- [8] Polak P Centralization of Treasury Management in a Globalized World *International Research Journal of Finance and Economics* **56** 88-95
- [9] Thaler R H 2015 *Misbehaving: The Making of Behavioral Economics* Penguin Books Ltd. (London)
- [10] Tversky A, Kahneman D 1974 Judgment under Uncertainty: Heuristics and Biases *Science New Series* **185(4157)** 1124-1131