

## Розділ 2

### Інновації у маркетингу

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#### ASYMMETRY OF INFORMATION AND ITS FEATURES IN THE TOURIST MARKET

*The purpose of the article is to determine the nature of asymmetry of information and the features of its existence in the tourist market. The processes of interaction and relationships are emerged and realized through the formation, transfer, and interchange of information. The asymmetry of information, more specifically the asymmetry of information exchange is the result of uneven information provision of the entities of market relations. It is advisably to distinguish the nature of asymmetry of information as a fact and nature of the process and the consequences of its use by market entities. Asymmetry of information on the tourism market has its own features regarding the origin, use, and effects. This is due to the peculiarities of tourism enterprises and their cooperation with the suppliers of tourism services and the features of the tourism product as informational.*

Keywords: asymmetry of information, tourism market, model, information, market.

**Introduction.** Information is the base of activity of society and the driving force of all its transformation processes.

In particular, information is defined as the data having semantic nature, being the result of intellectual activity of people, demonstrating certain value to a specific consumer by promoting the reduction of uncertainty in decision making [1]. For economic entities, information should be considered as the specific resource, the result of that utilization depends on not only on the amount of the consumed information, but on its combination with human capital to gain knowledge and to enable their use in the future. Information is qualitative and semantic fulfillment of any processes of economic sectors, in particularly, market. Markets exist due to information and information flows that form the appropriate market information system that is confirmed by the essence of the category of “market”. Market is a place and an approach to the interaction of buyers and sellers (producers and consumers) to determine the price and necessary quantity of goods, and the totality of their relationships concerning (the acts) purchase and sale of objects (products, services, works) [2]. The processes of interaction and relationships are emerged and realized through the formation, transfer and interchange of information.

Market demand and supply are the information of market actors about their intentions and capabilities. Thus, the producer does not represent products on the market, first of all, as a physical unit, but as the information about them (features, price, quantity, etc.). Buyers inform about their preferences and intentions to purchase products. Content of information flows, that connect them, plays a significant role in the functioning of the market. Imbalance of its formation for information provision for the market actors leads to asymmetry of information. It creates certain obstacles for market development. Solving this problem is important not only for the individual participants of market relations, but also for society as a whole.

**Literature review.** The problem of asymmetry of information in markets has been discovered and studied by scientists for a long time. The obtained results are presented, particularly in the writings of J. Akerlof [3], J. Stigler [4], J. Stiglitz [5], M. Spence [6], J. Lebedeva [7]. Influence of asymmetry of information was considered regarding the financial market [8], commodity markets [9], the banking services market [10], the labor market [11; 12]. At the same time, the problem regarding the tourism market remains insufficiently explored. Its strong development requires activation of this process.

**The aim of the article** is to determine the nature of asymmetry of information and the features of its existence in the tourist market.

**Basic material.** Studying the issue of asymmetry of information in market relations, several interpretations of its essence and different terms are exploited.

In particular, the “asymmetric information is a situation of uneven distribution of information about a product or service between a buyer and a seller” [13]. However, taking into account, that information is the data (about facts, processes, objects, etc.) and is a resource used by economic entities for their activity regarding to the economy, it cannot be a situation or process of distribution. Herein, a fairly different volume of information in market participants is the evidence of the existence of information asymmetry.

The term as “asymmetry of information (imperfect information, incomplete information)”, which is defined as the uneven distribution of information between the parties of an agreement about a product is also used [14]. However, incomplete or imperfect information should not be identified with its asymmetry. The term “perfect/imperfect” is not suited to the characteristics of the information (its properties) at all, because of a number of objective and subjective reasons. Quality, reliability, and usefulness can be considered as more exact characteristics. Besides, complete or incomplete information, perfect or imperfect are inherent to the characteristics of the amount of information which is owned by one entity. They are the result of the presence of information asymmetry.

Asymmetry of information emerges, when at least, two entities-participants of information connection or information interchange are available, and appears during and due to the creation of information flow.

It can be considered that the asymmetry of information, more specifically the asymmetry of information exchange is the result of uneven information provision of the entities of market relations. Consequently, one of them has received more information than another about an object, process, etc.

According to the above-mentioned nature of the market and considering the role of information for it, market can be represented as the following plurality-theoretic model:

$$R = \langle A, B, M, K, L, G \rangle, \quad (1)$$

where  $A$  – is an aggregate of sellers as market entities that consists of elements  $a_s$ , i.e.

$A = \{a_1, a_2, \dots, a_s\} s = \overline{1, S}$ ;  $B$  – an aggregate of buyers as market entities that consists of elements  $b_i$ , i.e.  $B = \{b_1, b_2, \dots, b_i\} i = \overline{1, I}$ ;  $M$  – an aggregate of market objects (goods, services, works) consisting of elements  $m_z$ , i.e.  $M = \{m_1, m_2, \dots, m_z\} z = \overline{1, Z}$ ;  $K$  – an aggregate of relationships between market entities;  $L$  – an aggregate approaches to the relationship between market entities;  $G$  – an aggregate of information in the market that consists of elements  $g_n$ , i.e.

$$G = \{g_1, g_2, \dots, g_n\} n = \overline{1, N}. \quad (2)$$

The aggregate of all information about the objects in a market can be represented as an aggregate of information about each market object:

$$G_M = \{g_{m_1}, g_{m_2}, g_{m_3}, \dots, g_{m_w}\} \quad (3)$$

The information about the object, for example, is represented as an aggregate data:

$$g_{m_1} = \{g_{1m_1}, g_{2m_1}, g_{3m_1}, \dots, g_{nm_1}\}. \quad (4)$$

The aggregate of information about every particular object owned by a buyer and a seller may be different.

If a seller as a market entity has full information about the object:

$$a_{1g_{m_1}} = \{a_{1g_{1m_1}}, a_{1g_{2m_1}}, \dots, a_{1g_{nm_1}}\} \quad (5)$$

and a buyer knows only some specific, but not the complete information about it:

$$b_{1g_{m_1}} = \{b_{1g_{1m_1}}, b_{1g_{2m_1}}, b_{1g_{3m_1}}\}, \quad (6)$$

asymmetry of information emerges:

$$a_{1g_{m_1}} \neq b_{1g_{m_1}}. \quad (7)$$

If a seller as a market entity has only a certain part of the information about the object:

$$a_{1g_{m_1}} = \{a_{1g_{1m_1}}, a_{1g_{4m_1}}, \dots, a_{1g_{nm_1}}\}, \quad (8)$$

and the buyer knows only certain kind of information too, but not the full one about the object:

$$b_{I_{g_{m_j}}} = \{b_{I_{g_{1m_j}}}, b_{I_{g_{2m_j}}}, b_{I_{g_{3m_j}}}\}, \quad (9)$$

asymmetry of information emerges:

$$a_{I_{g_{m_j}}} \neq b_{I_{g_{m_j}}}. \quad (10)$$

Sometimes, asymmetry of information is divided into objective and subjective [7], which is not quite true.

It is advisably to distinguish the nature of asymmetry of information as a fact and nature of the process and the consequences of its use by market entities.

Asymmetry of information is an objective phenomenon at the time of its occurrence. The objective causes of the asymmetry of information, in particular, is the variability of the environment, such as the market situation that does not allow having complete information for all market participants (time of changes in demand when a buyer knows more about their preferences for every moment or a period of time), objective "obsolescence" of information and the unreliability of its sources, inability to have all existing information through large quantities and respectively to process it for further use.

At some certain time, interval, a seller will always know more than a buyer that will continue until the moment when a seller starts to familiarize a buyer with own products, i.e. until a moment when a buyer appeals to a seller for consultation and gets exhaustive information about the product. Objectively, a buyer knows more about own preferences than a seller until that moment while this information is provided to a seller to get the corresponding consultation about the product that the most closely corresponds to a buyer's wishes.

Therefore, the existence of information is not negative and not positive. It simply exists as other natural phenomena. Somebody always knows more, but the way of taking this information advantage depends on the intentions of a person, the subjective approach to the situation, and the chosen ways of solving the problem. Information advantage is ownership of such information, the use of which allows a market entity to improve the process of its activities and to promote competitive status.

The process of using asymmetry of information is a subjective phenomenon whose effects depend on a human as a personality and appropriate intentions, i.e., a person can eliminate, minimize, or increase the asymmetry of information at certain point in time. Intention to reduce asymmetry of information in the market promotes positive relations between its participants, while the using for abuse, that is, distortion of the situation (fraud), is negatively reflected on market relations and the functioning of the market in general. There are the cases where asymmetry of information is not reduced enough due to the inefficient use of available information by a seller for precise and complete familiarization of a buyer with products and the conditions of its use due to low level of professionalism of a seller.

Thus, not a presence of information asymmetry but the process of its use can cause different effects, particularly negative. The negative effects of asymmetry of information are reduction of the share of honest producers, reduction of the availability of quality products, and decrease of demand for products of particular producers.

However, it is surprisingly that the presence of asymmetry of information can have positive effects, particularly, due to stimulation of honest sellers to improve their innovative activity in order to overcome asymmetry of information.

In the tourism market in contrast to commodity market, the amount of information owned by a buyer depends not only on an intermediary selling tourist services or tourism packages (tourism enterprise), but also on the producers of tourist services.

The elimination of asymmetry of information in the tourism market is virtually impossible, because objective asymmetry of information will always exist for a buyer.

Asymmetry of information in the tourism market has the features compared with other markets that is explained by the specifics of the tourist product as an information one. As it is well known, unlike other markets, a buyer is provided with tourism service or a set of tourism services (tourism package) at the time of sale, but exclusively information about them. A buyer receives tourism services only after certain time after the payment of their value. Only then, completeness of the information about the product provided by a seller can be confirmed. Therefore, at the moment of purchase-sale of tourism package (service), the absence of asymmetry of information in information relationships between a tourism enterprise and a buyer can not be stated as its presence. Unlike commodity markets, where, in particular, trading enterprise as an intermediary considers a selling product and can really determine its quality and evaluate the properties before the sale to a buyer, the intermediary in the tourism market, tourism enterprise, cannot (physically) be familiarized with the quality of each tourism service (tourism package) at the moment of its offering to a buyer, that is in conditions of asymmetry of information, which greatly increases the risk of its activities.

Let  $X_{sp}(t)$  is an aggregate of information owing by a buyer at the moment of purchase of the tourism product,  $X_{qp}(t)$  is a aggregate of information held by a tourism enterprise at the moment of sale of the tourism product,  $X_{vp}(t)$  is an aggregate of information held by a producer of tourism services at the moment of implementation of the tourism product of a tourism enterprise. Consider the options of information relationships between the participants of the tourism market.

If a tourism enterprise strives to reduce the asymmetry of information that will help maximize converting potential customers to its clients, level of information awareness to the buyer of tourism package (service) will be increasing, while the level of asymmetry of information will be declined, but only on the conditions of the absence or slight asymmetry of information between the producer of tourism services and tourism enterprise. Only in this case, the buyer will have the most complete information about the tourism package (service). Otherwise, the asymmetry of information in the relationship between the producer of tourism services and tourism enterprise will affect the buyer. So if  $X_{sp}(t) = X_{qp}(t)$ , but  $X_{qp}(t) < X_{vp}(t)$  then, respectively,  $X_{sp}(t) < X_{vp}(t)$  and then

$$(X_{sp}(t) = X_{qp}(t)) < X_{vp}(t). \quad (11)$$

Therefore, absence or minimization of asymmetry of information between tourism enterprise and the buyer, in fact, does not necessarily mean its absence for a buyer on the properties with respect to tourism service (product) and does not guarantee a high level of information awareness (completeness) to a buyer.

If a tourism enterprise and producers of tourism services seek to reduce (eliminate) the asymmetry of information between them regarding tourism service, while tourism enterprise provides the buyer with all the information about the tourism product (service), then asymmetry for this enterprise will be absent or negligible, i.e.

$$X_{sp}(t) = X_{qp}(t) = X_{vp}(t). \quad (12)$$

If the producers of tourism services and tourism enterprise as an intermediary abuse their awareness regarding the nature and terms of tourism services, then a buyer will be in a very negative situation, and the impact of asymmetry of information on it will be increased, i.e.

$$X_{sp}(t) < X_{qp}(t) < X_{vp}(t). \quad (13)$$

As it was noted that the asymmetry of information for a buyer regarding tourism service (product) can exist at the moment of its receipt, even if tourism enterprises and producers of tourism services have a desire to maximally provide information, eliminate asymmetry in the information in the relationship with the buyer. It is determined, in particular, for two reasons. Firstly, it is the time lag between the purchase and the obtaining of tourism service, which can lead to objective asymmetry of information owing to possible changes during this period, that means at the moment of receiving tourism service (product), political situation, economic, weather, and other conditions at a destination. Over the  $k$ -th a period of time, at the moment of the direct obtaining tourism services by the buyer, the level of its information awareness can be changed that indicates the presence of asymmetry of information:

$$X_{sp}(t+k) \neq X_{sp}(t) \quad \text{if} \quad X_{vp}(t+k) \neq X_{vp}(t). \quad (14)$$

Secondly, it is conditioned by the personality of a buyer, its certain preferences, which at the moment of purchase, are not even discussed. They can appear only at time of service, but they will affect the impression of the buyer of the provided service and information about it (noise outside, uncomfortable bed, not courteous staff at hotels, etc.).

Therefore, the presence of asymmetry of information (R) in the tourism market regarding process of purchase-sale of tourism package (services) is defined as

$$R = \begin{cases} 0, & \text{якщо} & X_{sp}(t) = X_{qp}(t) = X_{vp}(t), \\ 1, & \text{якщо} & X_{sp}(t) < X_{qp}(t) < X_{vp}(t), \\ 1, & \text{якщо} & (X_{sp}(t) = X_{qp}(t)) < X_{vp}(t), \\ 1, & \text{якщо} & X_{vp}(t+k) \neq X_{vp}(t). \end{cases} \quad (15)$$

**Conclusions.** Information asymmetry is inherent to the market functioning based on information as an objective phenomenon that appears during the functioning of information flow and is the result of uneven information provision of market entities.

The process of using asymmetry of information is a subjective phenomenon that depends on a person and can lead to positive or negative effects and therefore affect the functioning of the market. Asymmetry of information on the tourism market has its own features regarding the origin, use, and effects. This is due to the peculiarities of tourism enterprises and their cooperation with the suppliers of tourism services and the features of the tourism product as informational.

**The prospect of further research.** Generally, it should be noted that interest of the sellers in finding means of reducing the asymmetry of information is inherent to the tourism market as for other markets in conditions of strong competition if the sellers plan to operate in the market for a long time. Their task is to find effective methods of managing external information flows directed to potential customers that require further research.

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#### **Асиметрія інформації та її особливості на туристичному ринку**

*У статті розглянуто роль інформації як основи функціонування ринку та запропоновано його теоретико-множинну модель. Визначено сутність асиметрії інформації та природу її виникнення на ринку. Запропоновано розглядати виникнення асиметрії інформації як об'єктивне явище, а процес її використання – як суб'єктивне, наслідки якого можуть бути і негативними, і позитивними для учасників ринку. Розглянуто особливості асиметрії інформації на туристичному ринку стосовно її виникнення, використання та наслідків.*

Ключові слова: асиметрія інформації, туристичний ринок, модель, інформація, ринок.

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#### **Асимметрия информации и ее особенности на туристическом рынке**

*В статье рассмотрена роль информации как основы функционирования рынка и предложена его теоретико-множественная модель. Определена суть асимметрии информации и природа ее возникновения на рынке. Предложено рассматривать возникновение асимметрии информации как объективное явление, а процесс ее использования – как субъективное, последствия которого могут быть и негативными, и позитивными для участников рынка. Рассмотрены особенности асимметрии информации на туристическом рынке относительно ее возникновения, использования и последствий.*

Ключевые слова: асимметрия информации, туристический рынок, модель, информация, рынок.

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