

# QUANTITATIVE ESTIMATION OF BUSINESS ACTIVITY IN THE MARKET OF TOURIST SERVICES

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## 1. Introduction

This article determines basic quantitative indices of tourist services market: capacity of actual and potential market, market share, scope of market, saturation and structure of market. Possible methods of the specified parameters calculation are shown.

In modern management, none enterprise of tourism sector will undertake any commercial actions without deep studying of tourist services market. The concept «tourist services market» is interpreted in a different way. From the point of view of economic theory, tourist market is considered as socioeconomic phenomenon which unites supply and demand to ensure sale and purchase process of tourist services at certain time and in specific place. From marketing positions, tourist market is often defined as complex of all actual and potential consumers which buy or can buy certain goods and services.

Despite of various interpretation of the concept “market”, the majority of researchers agree that market has qualitative and quantitative characteristics. Qualitative characteristics of the market usually include such elements as demand, supply and price. Thus, this side of tourist market is in details considered in the works of such well known scientists – tourismologists as I. Baruckov, O. Lyubitseva, S. Rakadzhyska, S. Marinov [1, p.25-160; 2, p.123-192; 3, p.15-180; 4, p.35-70]. Much less attention is paid to quantitative characteristics of tourist market and methods of their determination. For example, A. Durovich and A. Kopanev consider in their book such important matters as “structure of tourist market”, “estimate of market condition”, “determination of market capacity” do not cite any formula using which it would be possible to determine any of the above mentioned parameters [5, p.69-78].

Taking into account insufficient readiness of this issue, the author of this article has put an aim: to determine structure of key quantitative indices of tourist services market and to propose the methods of their calculation.

## 2. Quantitative estimation of business activity in the market of tourist services

The basic quantitative characteristics of tourist market are: market capacity, market share, scope of market, market saturation and its structure. Procedure of their measurement is rather simple only on monopolized market. In all other cases it is necessary to develop special calculations patterns. Besides, determining basic parameters of tourist market it is necessary to take into account the fact that the methods developed for commodity market are not suitable. For example, it is impossible to apply methods of market capacity determination on the basis of consumption rate; on the basis of purchase frequency and standard consumption norms; on the basis of summation of primary, repeated and additional sales and many others, to tourist services market because of specificity of the service itself.

Before we summarize of the essence of tourist market parameters determination methods, it is necessary to clarify its terminology. Market capacity is the sum of all consumers' expenses on purchase of tourist services in certain period of time. As on the market, tourists' expenses are transformed into incomes of tourist companies, tourist market capacity may be determined and as the sum of services

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sold by all market sellers. Thus, market capacity points out both ability of manufacturers (sellers) to offer expected tourist product to buyers (level of supply development) and readiness of the consumers to buy offered products (level of demand).

Accordingly, it is possible to suggest two ways how to determine tourist market capacity. The first way proposes to determine market capacity as the sums of services sales by all sellers of the market for the certain period:

$$V = \sum_{i=1}^n V_i \quad (1)$$

where,  $V$  = general market capacity;

$V_i$  = sales volume of each  $i$  tourist enterprise;

$n$  = total number of the enterprises in tourism sector.

To calculate the capacity correctly, it is important to fix product, time and spatial characteristics of studied market. In other words, it is necessary to determine precisely the characteristics of analyzed service; calendar period for which market capacity is estimated (usually, it is 1 calendar year); geographical borders of the estimated market (area, region).

The second way to determine tourist market capacity is based on calculation of money volume the population of given administrative territorial unit spent for purchase of tourist services:

$$V = M_T \pm D_n \quad (2)$$

where,  $V$  = market capacity of given administrative territorial unit;

$M_T$  = money spent by the population for purchase of tourist goods and services;

$D_n$  = demand of the population of other region for purchase of tourist goods and services.

Basic difficulty of market capacity calculation by this method is in correct evaluation of population incomes and its part spent for tourist services.

Till now, it has been the matter of real market capacity which is measured by volumes of sales, purchases, goods and services on specific regional market for certain period of time, i.e. it is attainable actual parameter. In practice of tourist business, it is frequently the task to measure potential market capacity.

Potential market capacity is the highest possible sales volume in market situation when all potential consumers purchase tourist goods and services proceeding from the highest possible level of their consumption. Potential market capacity is unattainable value as consumers always have real budget restrictions.

Predictive market capacity may be determined by extrapolation method or by expert judgments method. Extrapolation method intends data analysis for the recent years. Expert judgments method requires engagement of tourism experts, scientists, market operators. Expert judgments may be received in different way. We'll give as an example one variant of determination of potential capacity on regional tourist market by expert judgments method. Initial data are resulted in table 1.

Total estimate is calculated by multiplication of number of experts on market capacity estimate. We determined weighed average experts estimate with total predictive estimate:

$$12200:20=610 \text{ thou. c.u.}$$

**Tab.1. Expert judgments of potential capacity of regional tourist market**

Number of experts	Estimate of perspective market capacity by the experts, thou, c.u.	Total predictive estimate of the experts, thou, c.u. (col.1 × col. 2)
1	2	3
4	400	1600
5	500	2500
7	700	4900
4	800	3200
20	2400	12200

We find predicted market capacity:

$$V_{np.} = V_o \pm 2S, \quad (3)$$

where:  $V_o$  = expected forecast;

$S$  = standard deviations.

Expected forecast is determined in the following way:

$$V_o = \frac{V_{onm} + N + V_{nec.}}{N_1}, \quad (4)$$

where:  $V_{onm}$  = optimistic forecast;

$N$  = product of number of forecast variants and average predictive weighed experts estimate;

$V_{nec.}$  = pessimistic forecast;

$N_1$  = total number of forecast variants separately taking into account optimistic and pessimistic forecasts.

Standard deviations are determined under the formula:

$$S = \frac{V_{onm.} - V_{nec.}}{N_1}, \quad (5)$$

Substituting initial data in formulas, we get:

$$S = (800 - 400) : 6 = 66,6 \text{ thousand c.u.}$$

$$V_o = (800 + 4610 + 400) \times : 6 = 606,6 \text{ thousand c.u.}$$

$$V_{np.} = 606,6 \pm 2 \times 66,6 = 473,4 \text{ thousand c.u.} - 739,8 \text{ thousand c.u.}$$

Thus, under expert forecast, annual potential capacity of tourist market will be within the limits 473,4 – 739,8 thousand c.u.

Knowing the values of actual and potential markets capacity, it is possible to determine a market saturation parameter:

$$H_p = \frac{V_{ac.}}{V_{pot.}} \times 100\%, \quad (6)$$

where:  $V_{pot.}$  = potential market capacity;

$V_{ac.}$  = actual market capacity.

Market saturation parameter shows share of region inhabitants which have actually got tourist services during a year. It is possible to assume that with market saturation level of 80-90 %, the market is unproductive for the tourist company; the parameter of 5-15 % makes it attractive for the company.

Correct determination of total market capacity enables to determine real share of the market which belongs to individual economic agent. Theoretically, such share is calculated as ratio of services sales volumes of specific enterprise to total market capacity:

$$M_{sh} = \frac{V_i}{V_{tot}}, \quad (7)$$

where:  $M_{sh}$  = market share of the  $i^{\text{th}}$  tourist enterprise in cost parameters;

$V_i$  = volume of tourist services presented by the  $i^{\text{th}}$  enterprise in a year;

$V_{tot}$  = total market capacity of region's tourist services in money terms ( $V_{tot} = \sum_{i=1}^n V_i$ ) for the same period.

The following quantities index is scope of tourist market. In contrast to market capacity, it determines number of tourist product buyers on specific geographical market and is accordingly calculated on the basis of quantities: number of tourists, number of arrivals, number of tour days. The initial data to determine this parameter is statistic parameters of region's tourism.

### **3. Conclusions**

Taking into account complexity of tourist product, it shall be note that such parameter as market structure plays important role in the characteristic of market. It is calculated on the basis of the data of tourist market scope and shows in percentage terms distribution of tourist goods and services consumers by such attributes as trip purpose, age of tourists, time of travel etc.

Thus, exact and reliable estimate of tourist services market is possible only when not only qualitative but also its quantitative characteristics are taken into account.

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### **Summary**

The critical analysis of approaches of various authors to definition of the basic quantity indicators of the market of tourist services is carried out. Methods of calculation of such important characteristics of the tourist markets are offered, such as: capacity of the real and potential markets, the size of the market, market structure, factor of a saturation of the market. Information sources for an exact establishment of size of the specified are considered.

**Key words:** market capacity; market share; scope of market; level of market saturation; market structure.

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