

## **MARKET STRUCTURE ANALYSIS AS AN INFORMATIONAL BASIS OF ENTERPRISE'S PRICING STRATEGY**

**Yu.O. Terekhova**

*Tambov State Technical University, Tambov*

*Represented by Doctor of Economic Sciences,  
Professor E.Yu. Merkulova*

**Key words and phrases:** age structure of patients; quality indicators of operations in the ISTC (interbranch scientific and technical complex) “Eye Microsurgery”; impact of crisis on the IRTC market related services; market ophthalmic services.

**Abstract:** The paper presents the market research of ophthalmic services market and its structure. The tendencies of the market development are identified; the influence of the crisis in its current state is revealed.

According to experts the demand for commercial medicine outweighs the supply.

The main competitors of commercial medical centers are public medical institutions, which form the basis for the centers providing paid medical services. And prices for the services provided, sometimes are significantly lower than similar services in private clinics.

Market eye care services can be divided into two major sectors:

- laser vision correction operations;
- Cataract phacoemulsification surgery.

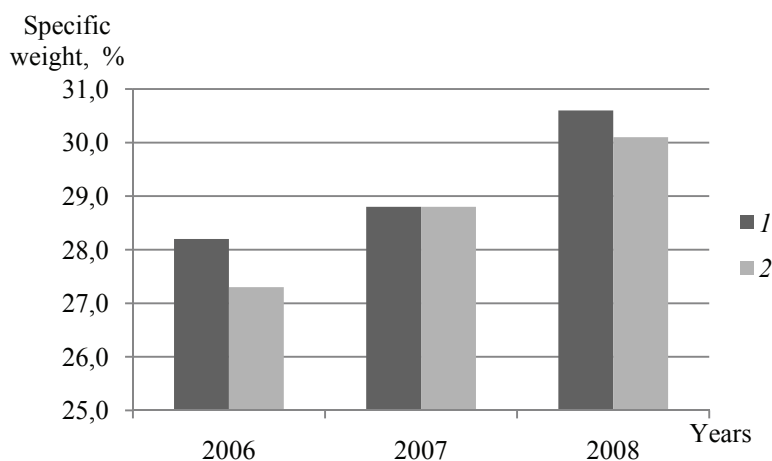
These two operations to date are the most profitable in the market of ophthalmic services. According to medical records in Tambov branch ISTC, for the period 2006–2008 operations of laser vision correction and cataract phacoemulsification accounted for: in 2006 – 28,2 % and 27,3 %; in 2007 – by 28,8 %; in 2008 – 30,6 % and 30,1 % respectively (Figure).

In economic crisis conditions, markets ophthalmic services slowed down its development. Thus the market of laser vision correction has continued to grow.

In many respects the development of the market commercial eye care repeats the situation that took place in the market of dental services. The period of massive investment in the industry is over, the processes of saturation market have finished, the trend towards consolidation has started. In this connection marketing planning has become extremely important to both well-established and new ophthalmic clinics.

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Терехова Юлия Олеговна – аспирант кафедры «Распределительные вычислительные системы», e-mail: yulya\_terekhova@mail.ru, ТамбГТУ, г. Тамбов.



**Dynamics of operations for the period 2006-2008:**  
 1 – laser vision correction; 2 – cataract phacoemulsification

The main objectives of market research are:

- 1) to determine the conditions which create an optimal balance between supply and demand of goods in the market;
- 2) to find out competitive positions of certain products and the firm itself in the target market;
- 3) to orient the production of the services, which generate high sales in specific markets and get the company planned profit.

In our view, there is a certain difficulty of reconciling the economic and social interests in health care. The reason for this is the contradictions in the interests of shareholders of private medical institutions seeking profit margin close to other sectors of the economy and the interests of patients – the consumers of these services.

Federal government agency, “Interdisciplinary Science and Technology Complex “Eye Microsurgery” named after Academician S.N. Fedorov of Federal Agency of hi-tech medical care” is a market leader in eye care services. The institution incorporates separate subdivisions (branches) without legal personality. These are Volgograd, Ekaterinburg, Irkutsk, Kaluga, Krasnodar, Novosibirsk, Saint Petersburg, Orenburg, Tambov, Khabarovsk, Penza and Moscow branches.

Age distribution of patients who were operated on in ISTC “Eye Microsurgery” is presented in Table 1.

According to the figures in Table 1 there is a trend of growth of operations as a whole, and by age groups. The only exception is the group aged 0 to 4 years.

The highest growth rate is recorded for the age group “5–14”. There is also a significant increase in operations in groups: “18–39” and “40–59”.

The greatest share of operations accounts for the age groups: “60 and over”, and “18–39”. In general, these two groups account for three quarters of all operations. Thus, the statistics shows that the health of the nation in terms of eyesight is getting worse, with vision loss and its pathology accounts for teenagers and young adults, who make up the productive capacity of the state.

The increase in the number of operations in the group “60 years or more” is associated with age-related changes. This group includes retired people, i.e. low-income consumers. The second group of patients, which is also characterized by the high dynamics of growth of operations, is from 5 to 14 years, i.e. children and adolescents who do not have an independent income.

According to Table 2 there is an increase in patients on conservative treatment. The most significant increase is observed for the following categories: working pensioners, 3 category disability people; Chernobyl cleanup veterans and ; visually handicapped. However, their share in the total number of patients is low, it accounts for 5,4 % on average.

The observed dynamics characterizes the tendency to an increase in eye diseases starting in adolescence and highlights the need for scaling up diagnostic means.

The impact of the crisis is primarily manifested in the reduction of budget funding of ophthalmic treatment and in reducing the purchasing power of the population. Therefore the government clinics seek to preserve their position in this market, which is manifested in improving the quality of services provided. According to the data given in Table 3 the average score of surgery quality is high enough and for refractive laser surgery it approximates to 100 %.

Due to the high professionalism of the staff and the uniqueness of the technologies applied in ISTC “Eye Microsurgery” it is widely known not only in Russia and CIS but in a vast majority of countries of the world.

ISTC has a monopoly in the market of ophthalmic services, and serves patients from different regions of Russia and other countries.

Statistics of patients from other areas is as follows: the largest part in Tambov region accounts for 51,1 % on average; Lipetsk, Voronezh and Penza region falls respectively 18,6, 11,9, 4,9 %.

ISTC “Eye Microsurgery” is a complex, which integrates the largest scientific institution, a modern clinic and experimental production and training center. It constantly develops and introduces new forms of organization of patient care. New technologies have dramatically improved the effectiveness

Table 1

**Structure of the patients ISTC “Eye Microsurgery” by age group**

Age group (years)	2006		2007		2008		The rate of growth in 2008, %	
	Quantity	Specific gravity, %	Quantity	Specific gravity, %	Quantity	Specific gravity, %	2006	2007
0–4	39	0.3	31	0.2	30	0.2	76.9	96.8
5–14	238	2.1	264	2.0	361	2.4	151.7	136.7
15–17	257	2.2	250	1.9	266	1.8	103.5	106.4
18–39	3933	34.2	4702	35.4	5283	35.8	134.3	112,4
40–59	2213	19.3	2579	19.5	2968	20.1	134.1	115.1
60 and more	4813	41.9	5433	41.0	5834	39.7	121.2	107.4
Total	11493	100.0	13529	100.0	14742	100.0	128.3	111.2

Table 2

**Indexes of conservative treatment in the ISTC categories  
of the population for 2006, 2008**

Population groups	2006		2007		2008		The rate of change in 2008, %	
	Quantity	Specific gravity, %	Quantity	Specific gravity, %	Quantity	Specific gravity, %	2006	2007
Other groups	208	13.3	236	12.1	299	12.2	143.8	126.7
Invalids of the Great Patriotic War (IGPW) and equated to them persons	24	1.5	19	1.0	27	1.1	112.5	142.1
IGPW and equated to them persons	25	1.6	22	1.1	16	0.7	64.0	72.7
Children under 15	695	44.5	1008	51.8	1343	54.7	193.2	133.2
Teenagers	45	2.9	70	3.6	69	2.7	153.3	98.6
Students	20	1.3	12	0.6	17	0.7	85.0	141.7
Chernobyl victims	2	0.1	1	0.1	4	0.2	200.0	400.0
Retired (not working)	141	9.0	144	7.4	186	7.5	131.9	129.2
Retired (working)	4	0.3	17	0.9	17	0.7	425.0	100.0
Disabled Children	132	8.5	187	9.6	155	6.3	117.4	82.9
Children with visual disabilities	6	0.4	7	0.4	4	0.2	66.7	57.1
Disabilities Group 1	15	1.0	14	0.7	17	1.0	113.3	121.4
Disabilities Group 2	169	10.8	132	6.8	164	6.7	97.0	124.2
Disabilities Group 3	17	1.1	27	1.4	59	2.3	347.1	218.5
Visually handicapped Group 1	32	2.0	23	1.2	29	1.2	90.6	126.1
Visually handicapped Group 2	27	1.7	28	1.3	47	1.8	174.1	167.9
Visually handicapped Group 3	0							
Total	1562	100.0	1947	100.0	2453	100.0	157.0	126.0

Table 3

**Indicators of the quality of the operations in the ISTC  
in 2006, 2008 (Assessment for surgery)**

*	2006, %				2007, %				2008, %			
	«5»	«4»	«3»	Average	«5»	«4»	«3»	Average	«5»	«4»	«3»	Average
1	88.66	10.21	1.13	79.67	92.24	6.74	1.02	85.55	91.85	7.16	0.99	84.88
2	81.12	17.98	0.90	69.05	84.38	14.73	0.67	79.52	88.87	10.32	0.81	80.05
3	91.33	8.42	0	84.33	95.55	4.45	0	91.49	93.52	6.02	0.46	87.82
4	100.0	–	–	100.0	99.89	0.11		99.78	99.70	0.26	0	99.44
5	99.78	0.12	0	99.66	99.97	0.03		99.95	99.96	0.04		99.92

\*Types of operations: 1 – Cataract with implantation; 2 – Antiglaucomatous; 3 – Vitreoretinal; 4 – Refraction; 5 – Laser

of treatment, more than 85 % of patients are treated with the latest technology. In ISTC 50 % of all high-tech operations in the country are performed. In the total surgical care of ISTC 85 % of operations are high and first category of complexity.

Although high-tech medical technology is going through the period of stagnation the ISTC “Eye Microsurgery” advances in high-tech field of ophthalmology.

ISTC is the largest base of scientific capacity building for national ophthalmology. Over the period of operation in the market of ophthalmic services the clinic has received 532 patents for inventions; they all have practical importance and are widely used in medical institutions of the country.

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**Анализ рыночной структуры  
как информационной основы формирования  
ценовой стратегии предприятия**

**Ю.О. Терехова**

*ГОУ ВПО «Тамбовский государственный технический  
университет», г. Тамбов*

**Ключевые слова и фразы:** влияние кризиса на положение МНТК на рынке соответствующих услуг; возрастная структура пациентов; показатели качества проведенных операций в МНТК «Микрохирургия глаза»; рынок офтальмологических услуг.

**Аннотация:** Проведен маркетинговый анализ рынка офтальмологических услуг и его структуры. Определены тенденции развития данного рынка, выявлено влияние кризиса на его современное состояние.

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