BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg

QUALITATIVE EXPERT ANALYSIS OF MEDICAL SERVICE CLINICS' ACTIVITIES IN KHOREZM REGION

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F-Doi: https://doi.org/10.5281/zenodo.21550071

Abstract: This research work is dedicated to a regional qualitative analysis of the competitiveness of private clinics providing medical services in the Khorezm region. The study employed sampling, interview, and questionnaire methods, as well as comparison, summarization, and generalization analysis techniques to collect expert assessments on 12 main criteria of clinic activity (duration of operation, number of specialties, capacity, staffing, service volume, innovation activity, market share, competitive environment, etc.). Integrated indicators were then calculated based on these assessments. The survey was analyzed based on 50 responses obtained from clinic founders, managers, and specialists during February-April 2025. Results indicated that while the duration of clinic operations, diagnostic capacity, number of patients, and competitive environment were rated highly, the level of attracting foreign specialists and adopting new specializations was found to be low. The research findings will serve as a foundation for developing practical recommendations to enhance competitiveness in the regional medical services market.

Keywords: medical service clinics, competitiveness, regional analysis, expert assessment, questionnaire survey, private healthcare, Khorezm region, service quality, innovative activity, market share, medical staff provision, diagnostic capacity

Introduction. In recent years, the number of private clinics providing medical services in Uzbekistan's healthcare system has been growing rapidly. This process is intensifying competition in the medical services market and contributing to improving the quality and effectiveness of services. Private clinics are playing a particularly important role in the regions (provinces) by providing convenient and prompt medical care to the population as an alternative to state institutions. However, objectively assessing the competitiveness level of these clinics and identifying ways to enhance it remains an urgent scientific and practical issue. Several factors influenced the choice to study the activities and competitiveness of private medical clinics in the Khorezm region: the rapid development of private medicine in the region, the increasing demand for medical services among the population, and the formation of a competitive environment. Analysis of existing literature revealed that in international practice (South Korea, Taiwan, Malaysia, Singapore, Turkey, etc.), the competitiveness of medical clinics is often evaluated using multi-criteria decision-making models (AHP, QFD, etc.) and expert assessments. These studies identified service quality, infrastructure, staff qualifications, location, and innovation as key factors. This work aims to quantitatively assess the competitiveness of private clinics providing medical services in the Khorezm region using an expert questionnaire based on 12 main criteria. The primary objectives of the research are: determining competitiveness indicators for clinics, assessing their current state, identifying weaknesses, and developing proposals. The research results have practical significance for shaping regional healthcare policy and enhancing the competitiveness of private clinics.

Methodology. The methodology of the research work is aimed at assessing the competitiveness of clinics providing medical services at the regional level, which was carried out through the integration of empirical and analytical approaches. Sampling, interviews, and questionnaire surveys were chosen as the main research methods, which ensured the collection and assessment of the actual state of clinic operations. In the analysis process, comparative analysis, aggregation, and generalization methods were used, through which quantitative indicators were calculated and regional trends were identified. Private medical service clinics operating in the Khorezm region of the Republic of Uzbekistan were selected as research objects. The selection process was carried out using a combination of purposive sampling and random sampling methods: first, using the database of the regional health department, a list of more than 100 clinics was compiled, then 50 clinics were selected through stratification based on the duration of activity, number of specialties, and market share. This sample size was deemed sufficient in accordance with the research objectives, as it covered 30-40% of the private medical sector in the region and allowed for statistically reliable results (confidence level 95%, margin of error 5-7%). This methodology, based on approaches recommended in foreign literature (for example, AHP and multi-criteria models), ensures the scientific validity and practical application of the research. As limitations of the study, it should be noted that the subjective assessments of the respondents and the focus on only one region provide opportunities for expansion in future research.

Literature review. Expert analysis of medical service clinics' activities is an interesting and relevant topic for researchers conducting studies in economics, management, and marketing. Research in this area has focused on analyzing criteria through experts to increase the competitiveness of medical hospitals, clinics, and medical tourism centers. The analytical work is based on empirical and theoretical approaches, often using multi-criteria decision-making models. To assess service quality in medical clinics from a competitive standpoint, Min, Mitra, and Oswald conducted a study in 1997 using South Korean cancer treatment clinics as an example. They proposed benchmarking guidelines to develop a quality rating of medical services based on expert data, aiming to increase clinic competitiveness by extensively using indicators of medical services, staff, and infrastructure. In a 2007 study by Wu C., Lin T., and Chen H., based on expert interviews, an optimal location selection model was proposed for Taiwanese hospitals to ensure competitive advantage. The main criteria included medical staff qualifications, infrastructure, market availability, control mechanisms, and location factors to enhance competitiveness. K. Rostek's 2012 research aimed to create a reference model for assessing the competitiveness of small and medium-sized medical service enterprises (clinics) through expert interviews and modeling, studying relationships between observed competitiveness factors. The model confirmed the presence of interaction between factors in increasing medical clinic competitiveness and substantiated that service quality and technological innovations enhance competitiveness. A 2015 study by Salah, Hussain, and others analyzed the strategic marketing and competitiveness of Malaysia's medical tourism industry. Through expert interviews, they examined the influence of international standards on medical tourism clinics' profitability and competitiveness, scientifically and practically substantiating the importance of medical and business management standards in increasing competitiveness. Similarly, Singaporean researchers Ganguli and Ebrahim studied factors ensuring medical tourism competitiveness based on service quality, branding, and international standards through expert interviews. They noted that effective competitive strategies in medical tourism could be developed based on these factors. European researchers Mikhailovich, Pushka, and Marinkovich relied on expert assessments in their multi-criteria evaluation of SPA centers' competitiveness in Bosnia and Herzegovina, focusing on sustainability. Their main criteria were

service quality, customer satisfaction, price, and environmental impact. Another significant study aimed to develop competitive strategies for medical tourism centers in developing countries,

No.	Characteristics of medical service activities	Rating scale (based on Likert)				
		1	2	3	4	5
1	Duration of medical service activity	Up to 1 year	1-3 years	3-5 years	5-10 years	Over 10 years
2	Number of licensed medical specialties	1	1-3	3-5	5-10	More than 10
3	Service capacity					
3.1.	Number of beds	Up to 5	5-10	10-15	15-25	More than 25
3.2.	Diagnostic capability	Up to 6	5-10	10-15	15-25	More than 25

assessing competitiveness by combining criteria through expert evaluations. In this work, Turkish researchers Yilmaz and Guneren used AHP-QFD integration to collect data from medical tourism experts and conduct factor analysis. They applied accreditation requirements, service quality, price, geographical location, medical personnel qualifications, aesthetics, and special requirements for dental clinics as main criteria. Their findings scientifically and practically substantiated that clinics can increase competitiveness by adapting to accreditation requirements and improving service. Based on this literature analysis, changes were made to the analytical method and questionnaire within the topic framework, and research directions were enriched in content.

Analysis and results. To determine the activities and competitive characteristics of medical clinics in the region, a questionnaire consisting of several criteria was prepared. The questionnaire covered the characteristics of medical service activities, including the duration of medical service operations, the number of licensed medical specialties in the clinic, the number of beds and diagnostic service capacity, the number of medical service personnel (specifically the number of doctors, mid-level medical staff, and foreign specialists), the number of patients served in the last year, the volume of services provided in the last year (in sums), the number of newly introduced medical specialties in the last year, the duration of medical service (diagnosis, treatment) per patient in the clinic, the clinic's cumulative share of specialties in the regional healthcare system, the level of the clinic's competitive environment (number of competitors), the level of automation in the clinic's medical service process, and the volume of the clinic's assets (capital) in sums. The questionnaire was formulated with specially graded responses in these areas (see Table 1). The survey was conducted in the form of interviews and questionnaires from February to April 2025 with the participation of founders, managers, and specialists of medical clinics operating in the Khorezm region. Of the respondents who participated on behalf of business entities, 24% were founders, 34% were managers, 26% were chief physicians, and the rest were accountants and managerial specialists. It was determined that more than 86% of them were specialists with long-term work experience. In this case, the respondents provided their expert opinions and assessments regarding the clinics in which they operate.

Table 1. Expert Study Questionnaire on Medical Service Activity Characteristics

4	Total number of service personnel	Up to 5	5-10	10-15	15-25	More than 25
4.1.	Of which, doctors	1	1-3	3-5	5-10	More than 10
4.2.	Of which, mid-level medical personnel	1-3	3-5	5-10	10-15	More than 15
4.3.	Number of foreign specialists	1	1-3	3-5	5-10	More than 10
5	Number of patients served in the last year	Up to 100	100-250	250-500	500-1000	Over 1000
6	Volume of services provided in the last year, in sums	Up to 100 million	100-250 million	250-500 million	500-1000 million	Over 1 billion
7	Number of newly mastered medical specialties in the last year	1	1-3	3-5	5-10	More than 10
8	Duration of medical care (diagnosis, treatment) for one patient					
8.1.	Diagnosis	Up to 10 minutes	10-30 minutes	30-60 minutes	1-5 hours	Over 5 hours
8.2.	Treatment, rehabilitation	Up to 1 day	1-3 days	3-5 days	5-10 days	More than 10 days
9	Cumulative share of the clinic's specialties in the regional Department of Healthcare	Up to 1 percent	1-3 percent	3-5 percent	5-10 percent	Above 10 percent
10	Level of the clinic's competitive environment (number of competitors)	1	1-3	3-5	5-10	more than 10
11	Level of automation of the medical service process in the clinic	unsatisfactory	low	satisfactory	good	high level
12	Volume of clinic assets (capital), in sums	Up to 500 million	0.5-1 billion	1-3 billion	3-5 billion	Over 5 billion

50 responses based on interviews and surveys were collected and systematically analyzed. An integrated indicator was calculated for each criterion, and we believe that these indicators can be considered as specific competitive benchmarks for clinics providing medical services. The results

of the analysis of the competitiveness criteria of business entities providing medical services in the region are presented in the table below.

Table 2. Analysis of the competitiveness criteria of business entities providing medical services

No.	Competitiveness criteria of the studied medical service providers	Average level of criteria
1	Duration of medical service activity	70.8
2	Breadth of coverage of licensed medical specialties	60
3	Sufficient capacity for treatment services (by number of beds)	60
4	Sufficient diagnostic service capacity (based on the number of patients per shift)	74
5	Staffing of service personnel	57.6
5.1	Staffing of doctors	40.8
5.2	Staffing of paramedical personnel	56
5.3	Staffing of foreign specialists	22.8
6.1	Level of service volume (by number of patients)	71.6
6.2	Level of service volume (by revenue)	62.4
7	Level of innovative activity (number of newly adopted medical specialties)	32.4
8.1	Optimality of service duration (in terms of patient medical diagnosis and diagnostic time)	50.8
8.2	Optimality of service duration (in terms of patient treatment and rehabilitation time)	50.8
9	Level of consolidated share in the regional medical services market	52.8
10	Level of competitive environment	74
11	Level of service process automation	64.4
12	Level of asset (capital) volume	52.4

Thus, our analysis revealed that the criterion of duration of medical service activity for clinics is of high importance. It was also confirmed that organizing a wide range of licensed medical services in the clinic is an urgent task. It was determined that the level of service capacity sufficiency in diagnostics should be higher than the level of bed sufficiency in treatment. Regarding staffing, it

was concluded that mid-level medical personnel have relatively higher importance, and in terms of service volume, the number of patients should be higher relative to revenue. Overall, according to the criteria presented in the table, it was established that the competitiveness criteria in the studied healthcare entities are at good and high levels. It was found that the practice of attracting foreign specialists is low, and the adoption of new medical specialties is somewhat slow. Nevertheless, indicators such as the level of competitive environment, volume of services provided, and duration of medical activity confirm the positive nature of the results for the objects and objectives of the analysis.

Conclusions and recommendations. A regional quantitative analysis of the competitiveness of private medical clinics in Khorezm region showed that clinics generally have medium to high levels of competitiveness. The strongest aspects were the duration of operation (70.8%), diagnostic capacity (74%), service volume in terms of patient numbers (71.6%), and level of competitive environment (74%). At the same time, weaknesses were identified as the attraction of foreign specialists (22.8%) and innovative activity - the level of mastering new specialties (32.4%).

The results of the analysis confirm that to increase the competitiveness of clinics, it is necessary to focus on the following areas: introducing a wide range of licensed specialties, attracting experienced foreign specialists, and adopting innovative medical technologies and new types of services. The implementation of these recommendations will contribute to the sustainable development of private clinics in the regional medical services market and improve the quality of medical care provided to the population.

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